Reconceptualizing NEPA to Avoid the Next Preventable Disaster

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RECONCEPTUALIZING NEPA TO AVOID THE NEXT PREVENTABLE DISASTER

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Abstract: This Article develops two accounts of why the risks of technological failure at the root of the Deepwater Horizon disaster were roundly ignored by regulators and industry alike. First, we argue that the inattention to risk may have reflected a “groupthink” pathology within the homogenous community of regulators and industry actors, whereby an orthodoxy regarding the safety of drilling came to be not just accepted but required in order to succeed. Second, we argue that the inattention to risk may have been a rational industry decision in light of its ability to avoid bearing all the costs of a disaster, as well as its ability to capture regulators to avoid unwanted scrutiny. We argue, then, that no matter which account was in fact prevalent, the proposed reforms in the wake of Deepwater Horizon are not fundamental enough to address the risks. Building on a contractarian model, we argue for a formulation of NEPA and other environmental reviews whereby it would be understood that industry engages in these reviews as a contractual quid pro quo for obtaining valuable rights, such as leases, and where those rights could be rescinded when it becomes apparent that the reviews were not conducted reasonably and in good faith. In other words, we believe that industry must come to “own” environmental review and, once that is so, the culture and calculations of industry leaders will change to make them more attentive to environmental risks.

Introduction

There are many technical, engineering, and scientific reasons why the Deepwater Horizon/BP disaster occurred. This Article does not seek to address the proximate causes of the disaster, but instead to probe further back in time. Why did no one in either government or industry plan for such a catastrophe? Why did numerous environmental reviews fail to even consider an oil spill of such great magnitude?
This Article begins to answer these questions by focusing on the relationship between the oil companies and regulators, and to place the failure in the context of larger debates about the role of substantive environmental law in facilitating regulatory success or failure. In particular, this Article considers the BP disaster from the perspective of two accounts as to why the regulation of natural resource extraction often fails to constrain the behavior of large companies, to the detriment of the public welfare. The first account, which we call the “Group Pathologies” account, essentially attributes the failure to the tendency of groups, especially highly homogenous groups, to develop strongly held, extreme positions even in the face of contrary data.\footnote{See discussion infra Part II.} This account posits a world where the dominant voices in industry and government honestly, if mistakenly, believed that a spill of such magnitude was virtually impossible.\footnote{See infra notes 92–96 and accompanying text.} The second account, which we call the “Ruthless Calculator/Captive Regulator” account, instead depicts the spill as the result of BP’s rational, if ruthless, calculation that it had so captured the regulators that it would be able to externalize much of the cost of any environmental risks.\footnote{See discussion infra Part III.}

In either case, we believe that a relatively straightforward reform to the environmental review process under the National Environmental Policy Act (NEPA) could significantly lessen the likelihood of such failures in the future.\footnote{See infra Part IV.} The dominant model for NEPA has been one where the action agency—typically a non-environmentally oriented agency—conducts the review and is or is not challenged in court for having done too little.\footnote{See Zygmunt J.B. Plater et al., Environmental Law and Policy 320 (4th ed. 2010).} Both the Group Pathologies and Ruthless Calculator/Capture accounts, however, suggest that nothing will change unless there are much stronger and more immediate incentives to perform robust environmental assessments.\footnote{See discussion infra Part IV.} Otherwise it will be too easy for regulators and industry to remain blinded to the risk, as in the Group Pathologies account, or to accept such risk knowing that many of the costs may be externalized onto others, as in the Ruthless Calculator/Captive Regulator account.\footnote{See infra Part IV.}
In order to overcome these problems, we advocate what we call the NEPA-as-contract model. Under this model, companies that receive leases on the basis of grossly inadequate assessments that they themselves perform will potentially have their leases rescinded, much as insurance contracts can be rescinded if it is later discovered that the applicant for insurance made a material misstatement on his or her application. Even if the threshold for rescinding a lease were set very high, and even taking into account that government officials might well not act on their legal right to rescind, we think that, ex ante, the mere possibility of the loss of valuable lease rights could be enough to encourage more thorough and honest assessments at the time companies applied for lease rights. Importantly, this model does not require Congress to amend NEPA or pass new legislation, but instead may be incorporated into the language of the lease contracts themselves. Thus, unlike many other proposed reforms, this one could be implemented immediately for all contracts going forward, and for any existing contracts subject to renegotiation.

I. THE DEEPWATER HORIZON/BP PERMITTING PROCESS

For many, the disastrous Gulf of Mexico oil spill began on April 20, 2010, with the explosion and fire on the Transocean-owned, BP-licensed drilling rig Deepwater Horizon. In truth, however, the spill was the culmination of years of oil drilling promotion that gave short shrift to the environmental risks.

In 2006, in the wake of rising oil prices, legislation opened up large areas of the Gulf of Mexico to offshore oil drilling. After opening these areas to drilling, the Minerals Management Service (MMS) engaged in NEPA analysis at three different stages of development. At the programmatic level, MMS prepared a single Environmental Impact Statement (EIS) for a five-year leasing period, which covered eleven dif-

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8 See infra Part IV.
9 See infra notes 132–136 and accompanying text.
10 See discussion infra Part IV.
11 See infra note 145 and accompanying text.
differs lease sales, including the lease to BP. This EIS was, by necessity, done at a high level of generality. At this level of generality, MMS estimated that there was over a ninety-nine percent chance that one or more spills of greater than 10,000 barrels would occur over the following forty years. Nonetheless, when conducting its risk analysis, MMS considered only two categories of spills, those greater than 1000 barrels, and those less than 1000 barrels. Catastrophic spills—those far greater than 1000 barrels—were not independently considered. The most likely spill greater than 1000 barrels was estimated at 4600 barrels, less than one one-thousandth of the spill that eventually occurred. MMS also noted that blowouts are “rare events and of short duration,” which meant that, in its opinion, the “potential impacts to marine water quality are not expected to be significant.” Along these same lines, the EIS stated that “a subsurface blowout would have a negligible effect on [Gulf of Mexico] fish resources or commercial fishing.”

Despite these deficiencies, no further EIS was performed for the individual lease sale of the BP well. Instead, during the lease sale, MMS only prepared an Environmental Assessment (EA). The EA relied on the highly generalized EIS to state that “no new significant impacts were identified for proposed Lease Sale 206 that were not already assessed in the Multisale EIS.” On that basis, MMS did not require a supplemental EIS, and instead issued a Finding of No New Significant Impact for the lease.

Similarly, when it came to the actual exploration plan for the leased tract, no further EIS was performed. Instead, BP submitted a so-called “Environmental Impact Analysis” as part of its exploration plan that did not consider the risks of a major blowout, stating that “[a] scenario for a potential blowout of the well from which BP would expect

15 Id. at 4-75.
16 Id. at 4-229.
17 Id.
18 Id. at 4-232.
20 MMS Lease EIS, supra note 14, at 4-260.
21 Id. at 4-295.
23 Id.
to have the highest volume of liquid hydrocarbons is not required for the operations proposed in this EP.”

Such refusal to consider the effects of a blowout was consistent with MMS rulemaking. Specifically, the agency “decided not to impose any prescriptive cementing requirements,” never required an oil spill trajectory analysis for an underwater spill, and exempted all lessees in the Gulf of Mexico from the requirement to submit a blowout scenario as part of their exploration plans, unless they fell into one of four—later expanded to five—categories. Indeed, drilling plans in the Gulf of Mexico have been considered categorically exempt from NEPA based on an MMS manual adopted on May 27, 2004. Categorical exclusions are “a category of actions which do not individually or cumulatively have a significant effect on the human environment . . . and for which, therefore, neither an environmental assessment nor an environmental impact statement is required.” In other words, MMS considered oil drilling in the Gulf of Mexico to pose so little risk to the environment that it was not even required to assess that risk. A blowout was assumed to be “unlikely to have an impact based on the industry wide standards for using proven equipment and technology for such responses, implementation of BP’s Regional Oil Spill Response Plan which address[es] available equipment and personnel, techniques for containment and recovery and removal of the oil spill.”

This was true despite the fact that MMS had received a number of reports, prior to the EIS process, concerning the reliability and effectiveness of blind shear rams, the supposed last “failsafe” option to prevent a blowout.
Even where safety testing was required by regulation, it was not performed.30 MMS regulations required companies “to submit test data proving that their blind shear rams could work on the specific drill pipe used on a well and under the pressures they would encounter.”31 However, when BP applied for its permit to drill the Macondo well, it never submitted this information, and Frank Patton, the engineer in the New Orleans office of MMS who reviewed BP’s application, never asked for it.32 Patton, who had spent “nearly three decades . . . working for the agency and the oil industry,” testified that “‘[w]hen I was in training for this, I was never, as far as I can recall, ever told to look for this statement.’”33 While Patton testified that the blowout protector was “‘the most important factor in maintaining safety of the well,’” he also said that he’d “approved hundreds of other well permits in the gulf without requiring this proof” that the blind shear ram technology worked.34

Perhaps most damning is evidence that the agency actually altered environmental review documents in order to speed up approval of oil drilling.35 In 2006, then-MMS biologist Jeff Childs’s analysis predicted that a future spill in Alaska’s Beaufort Sea would be “‘likely to result in significant adverse effects on local [fish] populations.’”36 This finding, which would have forced MMS to prepare a full EIS before it could auction off a lease in the Beaufort Sea, quickly became a matter of “concern” to the MMS chief of the environmental assessment section.37 It prompted a note from the regional supervisor for leasing and environment to the effect that this conclusion would “‘not go over well with HQ and others,’” and was eventually rewritten by another manager “‘[w]hen Childs balked at deleting the finding.’”38 Similarly, in a 2000 draft environmental analysis of deepwater drilling in the Gulf of Mexico, the agency initially wrote that “‘the oil industry’s experience base in deepwater well control is limited’” and that a massive spill “‘could easily turn out to be a potential showstopper for the [Outer Continental Shelf]

reliability of subsea BOPs [blowout preventers] and the effectiveness of blind shear rams.’”).

31 *Id.*; see 30 C.F.R. § 250.416(e) (2010).
32 Barstow et al., *supra* note 30.
33 *Id.*
34 *Id.*
36 *Id.*
37 *Id.*
38 *Id.*
program if the industry and MMS do not come together as a whole to prevent such an incident.” But when MMS finalized the document, those two statements were removed, and the agency concluded that there was no need to prepare a full-blown EIS, except with respect to certain deepwater components, because “[m]ost deepwater operations and activities are substantially the same as those associated with conventional operations and activities on the continental shelf.”

In sum, the environmental review process for deepwater drilling in the Gulf of Mexico—and in general—appears to have been subsumed to the overall goal of “drill, baby, drill.” The review process was lax, categorical exclusions proliferated, risks were either ignored or excised from review documents, and permits were approved without the required assurances. What caused this confluence of failures? And what can be done to prevent such failures in the future? These questions are the subject of our analysis.

II. A Group Pathologies Account of Regulatory Failure

A. Groupthink

The failure to even consider, let alone manage, the environmental risks of deepwater drilling may well have proceeded from an assumption that such drilling was safe. How could such an assumption have survived given the contrary information, in particular the series of reports describing the vulnerability of the blind shear ram? Social psychologists have long recognized that groups that share common assumptions can be surprisingly resistant to having such assumptions challenged.

In his famous study of failure in group decision-making, Irving Janis coined the term “groupthink” to refer to “a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members’ strivings for unanimity override their motivation to

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39 Id.
42 See Eilperin, supra note 35.
realistically appraise alternative courses of action.” Groupthink does not depend on invidious motives, but is exacerbated by a strong leader whose bias is known—a bias that the members of the group strive to form unanimity around. Lack of diversity in training and background also exacerbates groupthink tendencies, as does a homogenous culture and ideology. Groups subject to these factors can be impervious to evidence that does not conform with preconceived notions.

Before applying this notion of groupthink to explain why industry and MMS could have been so blind to the risk of a blowout, it is worth noting a couple of caveats. First, the traditional groupthink model concerns the actions of a discrete group given a discrete task. In the case of the BP disaster, however, there is no single discrete group that was blinded to the environmental risks. Indeed, it seems that all the environmental reviews, done by either the government or industry, and all the disaster planning failed to consider a risk that, in hindsight, seems clearly like it should have been considered even if the risk was small.

The groupthink analysis we employ is thus in some sense larger than the traditional analysis, although it is in keeping with several scholars’ suggestion that the groupthink dynamic is actually quite common, especially in governmental decision-making.

Second, it is worth noting that the explanatory power of the groupthink theory has been criticized in the academic literature. Does groupthink cause bad outcomes? Janis’s original series of case

45 See Robert S. Baron et al., Group Process, Group Decision, Group Action 71 (1992); Janis, supra note 44, at 197.
47 See Janis, supra note 44, at 37 (describing groupthink tendency of “selectively attending to the messages that feed into the members’ shared feelings of confidence and optimism, disregarding those that do not”).
48 Id. at 10 (describing the origins of groupthink research in examining “defective decision[s] . . . made in a series of meetings by a few policy-makers who constituted a cohesive group”).
49 See supra text accompanying notes 20–23 (government EIS and EA process); supra text accompanying note 24 (BP environmental analysis).
51 See Jin Nam Choi & Myung Un Kim, The Organizational Application of Groupthink and Its Limitations in Organizations, 84 J. Applied Psychol. 297, 302 (1999) (questioning the coherence of groupthink through an empirical analysis that shows some groupthink symptoms, such as group identity, were positively correlated to a team’s performance under experimental conditions).
studies, by focusing exclusively on foreign policy fiascoes, cannot answer this question. While Janis found examples of groupthink in the decision-making process leading up to these fiascoes, he failed to show that groupthink is absent, or attenuated, in decision-making processes that do not lead to bad outcomes. Attempts to empirically verify the causal link between groupthink and bad outcomes have met with mixed results. Part of the difficulty is that Janis identified a number of different antecedent conditions, both in terms of the organization’s structure and in terms of the particular situation the organization faced, that would lead to groupthink. Laboratory research has therefore been made difficult because it can only include a certain number of variables, and therefore lacks the authenticity of a real life decision. Laboratory research has also been criticized because “no consensus exists on how to appropriately operationalize some antecedents (e.g., cohesion)” and because “we have not yet developed reliable measures for many of the groupthink symptoms.” There is also no consensus about what we mean by a “bad” outcome decision.

Nonetheless, there is sufficient support for the notion that some form of groupthink leads to a predictable discounting of risks, which, in turn, bears some probabilistic relationship to bad outcomes, however they are defined. At a high level of generality, groupthink phenomena have been observed in the failure of corporate boards to conduct meaningful oversight in the wake of the Enron debacle, the stifling of


53 See Steve Yetiv, Groupthink and the Gulf Crisis, 33 BRITISH J. POL. SCI. 419, 421 (2003). Yetiv cites to Janis’s work to list four structural faults of the organization: (1) insulation of the group; (2) lack of traditional impartial leadership; (3) lack of norms requiring methodical procedures; and (4) homogeneity of members’ social background and ideology. Id. He also cites to Janis’s work to identify two elements of provocative situational conflict: (1) high stress from external threats with low hope of a better solution than the leader’s; and (2) low self-esteem temporarily induced by: (a) recent failures that made members’ inadequacies salient; (b) excessive difficulties on current decision-making tasks lower each member’s sense of self-efficacy; and (c) moral dilemmas based on an apparent lack of feasible alternatives except ones that violate ethical norms. Id.


56 See JANIS, supra note 44, at 37; Yetiv, supra note 53, at 437.

dissent by administrative agencies, environmental regulation in general, and the conduct of the Army Corps of Engineers before Hurricane Katrina in particular.

There are sufficient indicia that groupthink may have played a role in the discounting of environmental risks in the Gulf of Mexico. Oil drilling regulators and industry in the Gulf were known to be fairly homogenous in terms of their ideology and social background, which is an important factor in the development of groupthink. In terms of ideology, both industry and MMS were, in recent years, invested in increasing deepwater drilling in the Gulf. The agency has been described as the province of engineers who are at war with biologists who have counseled caution. As one marine biologist who left the agency has stated, “[i]n order to get promoted at MMS, you better get invested in this pro-development oil culture.” This ideology apparently did not change after the Bush Administration ended. "Employees describe being in Interior—not just MMS, but the other agencies—as..."
the third Bush term. . . . They’re working for the same managers who are implementing the same policies.”

The homogeneity in both social background and ideology between MMS and oil company employees was highlighted in May 2010, as the BP oil spill raged, when the Interior Department’s Office of the Inspector General issued a report concerning MMS employees’ receiving inappropriate gifts from the Island Operating Company. The report “found that a culture of accepting gifts from oil and gas companies was prevalent throughout the MMS Lake Charles office” in Louisiana, and that “the individuals involved in the fraternizing and gift exchange—both government and industry—have often known one another since childhood.” The MMS Lake Charles District Manager Larry Williamson told Inspector General investigators that “many of the MMS inspectors had worked for the oil and gas industry and continued to be friends with industry representatives.” Williamson further stated that “[w]e’re all from the same part of the country. Almost all of our inspectors have worked for oil companies out on these same platforms. They grew up in the same towns. Some of these people, they’ve been friends with all their life.”

The danger of such homogeneity is the lack of any credible outside voice that might challenge the assumptions of the group—assumptions such as the impact from an exploratory well blowout. Indeed, after the spill, David J. Hayes, the Deputy Secretary of the Interior, claimed in an interview that “[w]hat happened to all the stakeholders—Congress, environmental groups, industry, the government—all stakeholders involved were lulled into a sense of what has turned out to be false security.”

This false sense of security under the groupthink model was likely exacerbated by leadership that was pushing to approve oil drilling projects as quickly as possible, and that itself discounted the environmental

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66 Id. at 58 (quoting Jeff Ruch, executive director of Public Employees for Environmental Responsibility, a group that represents federal whistle-blowers).
67 INVESTIGATIVE REPORT, supra note 61, at 1 (describing the Island Operating Company as “an oil and gas production company working on oil platforms in the Gulf of Mexico”).
68 Id.
70 INVESTIGATIVE REPORT, supra note 61, at 3.
71 Id.
72 See JANIS, supra note 44, at 39.
73 See Barstow et al., supra note 30.
risks. For example, Vice President Cheney’s 2001 report describing the Bush Administration’s new energy strategy stated that “exploration and production from the OCS [Outer Continental Shelf] has an impressive environmental record” and that “delays and uncertainties can hinder proper energy exploration and production projects.” President Bush issued an executive order instructing agencies that “[f]or energy-related projects, agencies shall expedite their review of permits or take other actions as necessary to accelerate the completion of such projects” and Interior Secretary Gale Norton implemented royalty relief programs to heighten the incentives for offshore drilling. In light of the clear preference of leadership to emphasize more drilling, and de-emphasize environmental risks, it is no surprise that the decision-making groups reflected these same preferences. Promotional leadership is a key predictor of the groupthink phenomenon.

B. Group Polarization

This single-minded focus on drilling may also have led to a cognitive bias related to groupthink—group polarization. Put simply, group polarization is the “process whereby group discussion tends to intensify group opinion, producing more extreme judgments among group members than existed before discussion.” This process is either due to an informational mechanism, where group members hear more ar-

74 See 30 C.F.R. § 250.233 (2010) (requiring MMS to approve, disapprove, or require modifications of a proposed exploration plan within thirty days of submission); Seidenfeld, supra note 50, at 543 (finding the time pressure on agencies may exacerbate groupthink); Eilperin, supra note 35 (chronicling MMS’s history of pushing projects through quickly at all costs, even when faced with warnings of great environmental risk).

75 Energy & Commerce Memo, supra note 25, at 3.


78 See Dickinson, supra note 12, at 56–57; Eilperin, supra note 35.


80 See BARON ET AL., supra note 45, at 73.
Arguments for a favored outcome, or a normative one, where group members compete to show they share an underlying value or norm.\textsuperscript{81}

In the case of offshore drilling, group polarization may have only exacerbated the faith in technology and the discounting of environmental risks, both of which were needed to assume that drilling was safe. Whether environmental risk was seen as a factual prediction, e.g., everyone knows that blowout protectors are safe, or an underlying value, e.g., oil drilling is good for the nation, this particular group dynamic may have led to a more extreme discounting of risk than would have been the case had the relevant personnel been working alone. This is especially true when group members share the same background, were trained in a similar manner, and work on similar projects.\textsuperscript{82} In that case, due to the availability heuristic,\textsuperscript{83} they are “apt to be facile at recalling the same types of events and therefore might all overestimate the probability for the occurrence of that type of event.”\textsuperscript{84} Given the common social background and ideology described above, it is no surprise that everyone involved in assessing environmental risks of offshore drilling underestimated those risks, and overestimated the extent to which technology could overcome any blowout that did occur.\textsuperscript{85} In light of the availability heuristic, it is also significant that deepwater drilling was a recent phenomenon, and that shallow-water spills, which would have been more familiar to the individuals involved, were less catastrophic and much easier to control.\textsuperscript{86} No spill comparable to the BP spill had ever occurred before in United States-controlled waters.\textsuperscript{87}

C. Group Confirmation Bias

Group confirmation bias occurs when groups “search unduly for information and pay too much attention to arguments that confirm

\textsuperscript{81} Seidenfeld, supra note 50, at 535–36.
\textsuperscript{82} Id. at 537.
\textsuperscript{83} Id. at 501 (“Individuals tend to rely on the availability heuristic—the facility with which they can recall a type of event—as an indication of the probability that such an event will reoccur. The availability heuristic leads individuals to overestimate the probability of an event that comes easily to mind.”)
\textsuperscript{84} Id. at 537.
\textsuperscript{85} See supra notes 67–71 and accompanying text.
initial hypotheses.” While individuals are of course subject to this same bias, it may become exacerbated in groups due to the group polarization phenomena described above. Thus, “[e]ven when some group members may be aware of information that undermines a group’s initially preferred decision, the group may fail to consider the information to the same extent as it would consider confirming information.” The initial hypothesis of most decision makers, both within industry and the agency, would have been that deepwater drilling was safe, technological safeguards were reliable, and oil spill response capabilities were robust. In such a climate, it comes as no surprise that contrary information never made it into any environmental review.

The important insight of the group pathologies approach, though, is that the lack of regard for environment risk may not have been the result of any evil or calculating motive. Instead, it may have stemmed from a genuine—if flawed—belief that such risks were low, and that even if a blowout occurred, technological safeguards would prevent catastrophe. The specific warnings of the inadequacy of existing technology would have been either brushed aside as the product of ignorant outsiders, or overly zealous engineers, or simply not known within the relatively insulated groups making key decisions. This phenomenon may have been exacerbated by leadership bias and by the pressure to perform environmental reviews quickly. Interestingly, the tiered nature of environmental reviews—where an EIS was performed at the programmatic level, only an EA at the lease level, and nothing formal at all at the drilling level—may have made it easier for decision makers at the lower levels to ignore warnings by assuring themselves that proper reviews were done at the higher levels. In this sense, the tiers may have functioned as a ready excuse to ignore information such as environmental risks that may have challenged the dominant ideology of the group. The group could always tell itself that such risks were already

88 See Seidenfeld, supra note 50, at 538.
89 See Schulz-Hardt, supra note 46, at 665.
90 See Seidenfeld, supra note 50, at 538.
92 See id. at 52.
93 See Alyson C. Flournoy, Three Lessons We Should Learn from the BP Deepwater Horizon Disaster and Why We Won’t, 38 B.C. Envtl. Aff. L. Rev. 279, 289 (2011).
94 See id.
95 See Ahlfinger & Esser, supra note 79, at 39 (leadership bias); McCauley, supra note 79, at 252 (leadership bias).
considered, further insulating itself from any contemplation of catastrophe.

III. A Ruthless Calculation/Capture Account of Regulatory Failure

Of course there is another possible explanation for the flawed environmental reviews that occurred before the spill. Put simply, BP may not have been honestly blinded to the risk. Instead, it may have rationally, if ruthlessly, calculated the relative costs and benefits of doing nothing, rather than taking proactive steps to protect against risk, and determined the former was the better value choice. Pursuant to such a rational calculation, BP simply co-opted MMS with its strategy of downplaying environmental risks.97

To address the risk of a blowout protector failure before a spill, BP would have had to expend money, perhaps a good deal of it.98 If BP had understood the risk to be relatively immediate and quite large, then it might well have decided that the investment of resources in prevention now would be justified on a cost-benefit basis. We doubt that was BP’s understanding. But imagine that BP actually understood that there was some non-negligible risk of a blowout, albeit a risk such that a spill was very unlikely and almost impossible to quantify. We maintain that it is possible to understand BP’s decision to ignore a perceived modest, but non-negligible risk of a major spill as perfectly rational from a corporate wealth maximization perspective.99

How could that be a rational calculation? For one thing, the lesson for the oil industry—and not just the oil industry—from the Exxon-Valdez, the pre-BP biggest spill in United States history, arguably is that causing a major environmental and economic disaster is not necessarily the end of the world for a powerful company.100 In the wake of the Exxon-Valdez spill, Exxon has ferociously and quite successfully litigated the issue of its liability and in particular its liability for punitive damages.101 At the same time, Exxon managed to secure an an-

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97 See Flournoy, supra note 93, at 284.
101 Exxon Shipping Co. v. Baker, 554 U.S. 471, 471, 514 (2008). The Supreme Court reduced Exxon’s punitive damage award from $5 billion to just over $500 million. Id. Exxon has paid only a portion of the $500 million to date. See Susan Lyon & Daniel J.
nouncement by the federal government that the spill cleanup had been completed by 1992, even though by many accounts much of the oil was never recovered, and ecological effects continue to be felt to this day. In the immediate wake of Exxon-Valdez and up until the present day, Exxon has continued to be a fantastically profitable company.

The legal environment in which BP and other companies operate also makes intentional inaction in the face of non-negligible risk a rational strategy. *Ex ante*, before the spill, a rationally calculating BP would have understood that U.S. corporate, bankruptcy, and tort law would operate to allow the company to cap any liability exposure from any major spill. A rationally calculating BP would have known that, by building and operating the well in tandem with other companies, it would share liability for a spill under applicable tort law principles. By operating the well via a subsidiary, a rationally calculating BP would have known that it effectively capped its liability because prevailing corporate law principles make it exceedingly difficult to pierce the veil and collect from the parent company. And BP, again in the rational calculator model, also would have considered that the threat of Chapter 11 bankruptcy of the subsidiary in the event of a spill would dissuade the government and other actors from pressing their claims too aggressively. A rationally calculating BP also would have understood

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104 See Ben Casselman & Spencer Swartz, *BP Report Pins Most of Blame on Others*, WALL ST. J., Sept. 9, 2010, at A4. Sharing liability appears to be the goal of a recent BP self-assessment regarding the spill, which lays much of the blame on BP’s partners in the construction, management, and operation of the well. Id.


that—the risk of bankruptcy aside—the central importance of the company for the local Gulf and U.S. economy would be a strong disincentive for the federal or state governments to punish the company enough to harm its ability to operate effectively in the United States.\footnote{107} And a rationally calculating BP would also have understood that any costly regulatory reforms adopted in the wake of a spill likely would be borne by BP and its competitors alike, so that its competitive posture would not be changed vis-à-vis its competitors.\footnote{108}

What has happened since the Deepwater Horizon blowout protector failed, moreover, would seem to confirm that a deliberative strategy of doing nothing proactive in the face of a perceived non-negligible risk would have been, \textit{ex ante}, quite rational. For its part, the U.S. government appears poised not to take punitive actions against BP and, quite to the contrary, has allegedly downplayed the magnitude and effects of the spill—all of which is to BP’s advantage.\footnote{109} The House bill that was passed and would impose new restrictions on BP as well as other companies in the Gulf is stalled, perhaps permanently, in the Senate.\footnote{110} Shortly after announcing a federal moratorium on deepwater drilling, the federal government lifted the moratorium for all drilling companies in the Gulf.\footnote{111} While BP has been harshly criticized by some in the Gulf, local leaders and residents have been adamant in their desire to see BP, and the other companies, continue to expand drilling there.\footnote{112}

\begin{footnotes}
\item[107] See \textit{BP Commission Report}, \textit{supra} note 91, at x–xi.
\item[110] See \textit{Bill Summary & Status 111th Congress (2009–2010)} \textit{H.R. 3534}, \textit{LIBR. OF CONGRESS, THOMAS}, http://thomas.loc.gov/cgi-bin/bdquery/z?d111:h.r.03534: (last visited Apr. 15, 2011) (noting last major action was placement on Senate Legislative Calendar on August 4, 2010).
\end{footnotes}
The rational, ruthless calculator story of how BP and the other companies failed to plan for the possibility of a failure of a blowout preventer, of course, only makes sense because government regulators did not force the companies to address that possibility. This regulatory failure could be attributed to groupthink at MMS and elsewhere, as suggested above: key regulators, if not the top management of the companies, may simply have bought in and held onto as orthodoxy the oil companies’ narrative that blowout protectors simply do not fail and hence no meaningful contingency planning was needed. But it is also possible that key regulators did not absorb this narrative and hence all else being equal may have wanted the companies to take more action, but they were too overwhelmed by corporate influence to take any effective action in this regard. The agencies were captured because of: (1) the political power of oil companies in Congress and the executive branch, due to campaign contributions and other support; (2) the agency staff’s desire to please the companies and secure possible personal benefits; and (3) good relations with the companies, which could be seen as a road to success, both within the agency and in the private sector.113 The capture story is not exclusive of the agency groupthink one: a dominant corporate narrative about the infallibility of blowout protectors may have been adopted by the relevant agencies, and this group mindset plus the raw power and possible benefits offered by and possible retribution from the companies may have operated in tandem to quiet any voices within the agencies who might have effectively pushed for tougher agency actions requiring proactive and precautionary planning on the part of the companies.

IV. Reforming NEPA to Address Group Pathologies, Ruthless Calculation, and Capture

If the failure of environmental reviews was due to either group pathologies, namely groupthink encompassing the agency and industry actors, or industry’s ruthless calculation coupled with agency capture, then most of the reforms being called for in the environmental review process will do nothing to prevent similar failures in the future.114 The Council of Environmental Quality (CEQ), for example, has called for greater coordination among successive reviews in the environmental re-

113 See BP Commission Report, supra note 91, at 67, 77; see also Plater, supra note 100, at 391–92, 398.
114 See Flournoy, supra note 93, at 287–93.
view process of the leasing, exploration, and drilling in offshore areas. The CEQ—and not just the CEQ—has called for a reconsideration, and perhaps limitation, on the use of the grants of categorical exclusions to otherwise applicable review requirements. Greater coordination and fewer or no categorical exclusions are completely unobjectionable reforms, and they are responsive to the failures of MMS. But if the group pathology or ruthless calculator/capture accounts are descriptively correct, these proposed reforms will not ensure that industry takes greater precautions to prevent and prepare for the contingency of ecological disasters.

If group pathology is in play, more coordination among successive reviews, and a greater number of reviews due to fewer categorical exclusions will not result in stronger preventative measures and contingency planning. That is because there will not be strong voices within the agency or industry to push for more prevention and contingency planning. And if drafts of the reviews do contain such calls, top agency officials, immersed in a group pathology, are likely to alter those drafts or ignore them, thus allowing industry to ignore them as well. If we assume instead that industry is a highly realistic but ruthlessly calculating entity and that agencies are captured, we likewise would expect better coordinated and more reviews to translate into higher transactions costs, such as longer federal register notices, but not to change industry behavior. And the same is true of calls to reform NEPA by reinstituting worst-case scenario requirements for EISs, however sound those calls may be. Such a requirement will not meaningfully change the substance of EISs, agency requirements, and industry behavior when

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116 See id. at 4–5.

117 See supra Part I.


groupthink or ruthless calculation/capture describes the mindset of agency and industry actors.\textsuperscript{120}

Changes in formal NEPA requirements, however, could perhaps have a real impact when bolstered by enforcement via citizen suits.\textsuperscript{121} However, the national environmental non-governmental organizations (NGOs)—the groups that are best able to mount effective litigation—essentially ignored the Gulf region before the BP oil spill.\textsuperscript{122} Putting aside the perhaps temporary attention these groups are paying to the Gulf in the wake of the BP spill, government regulators and industry can engage in natural resource extraction in significant swathes of the nation without much fear of a well-litigated NEPA suit or of local politicians being embarrassed or galvanized by any such suit that is brought.\textsuperscript{123} Moreover, the federal judiciary has been notably hostile to NEPA litigation, particularly in recent years, and, as Dan Farber has pointed out, often has given agencies a pass on environmental reviews that ignore the most obvious and potentially most dangerous risk from the proposed agency action.\textsuperscript{124} It would be reasonable for the national environmental NGOs to anticipate a particularly cool judicial reception in those regions like the Gulf States, moreover, where the environmental groups are not strong in membership, do not have much influence among local politicians, and where extractive industries form a centerpiece of the local economy.

If better NEPA-style review, and more coordination of that review, is unlikely to have an effect where the groupthink or ruthless calculator accounts are applicable, and NGOs and the courts cannot be relied upon to play a constructive role, then what reforms would make a difference? We suggest that to make a difference, the environmental review has to be re-conceptualized. In the dominant NEPA model, the review is undertaken by the “action agency,” which was MMS in the Gulf context, often with required consultation by expert federal agencies, such as Department of Interior’s Fish and Wildlife Service.\textsuperscript{125} Even

\begin{footnotesize}
\begin{enumerate}
\item See Flournoy, \textit{supra} note 93, at 286–86.
\item See, e.g., Cetacean Cmty. v. Bush, 386 F.3d 1169, 1179 (9th Cir. 2004) (explaining how citizens can obtain enforcement of NEPA rights).
\item See \textit{id}.
\item See 40 C.F.R. § 1501.6 (2010) (describing the responsibilities of the lead agency in conjunction with cooperating agencies).
\end{enumerate}
\end{footnotesize}
if the industry actor, such as BP, in fact does much of the work and even
writes the review, the review carries the action agency’s name and it is
that agency that bears the risk of being sued or criticized for its inade-
quacies.126 In some instances, agencies such as MMS may have other
regulatory review requirements that oblige a permit applicant or other
private actor to conduct an environmental review that is formally sepa-
rate from the NEPA process.127 Even where this is so, the consequences
of not conducting the review, or conducting it poorly, are minimal for
the industry actor if the agency in fact is absorbed in a complacency-
inspiring groupthink or has been captured.128 BP and the other oil
companies could prepare oil spill response plans in 2009 that refer-
cenced walruses in the Gulf—even though none have been there for
centuries—because they knew it did not matter.129 Nothing was at stake.

Now imagine that we re-conceptualize NEPA and related environ-
mental reviews in two important respects. First, instead of being seen as
a process or requirement that the agency manages and takes legal re-
 sponsibility for, the NEPA process would be openly recognized as an
undertaking of the company seeking the award of a lease or other
benefit from the government agency. BP and other companies would
have to fully own their reviews, and the lack of quality or comprehen-
siveness in them. Second, rather than being seen as having no down-
side consequences, at least in the absence of a citizen suit, the envi-
ronmental review would have potentially serious consequences for the
company’s bottom line; companies could be severely penalized finan-
cially for having conducted a dishonest or grossly inadequate environ-
mental review as part of the process of obtaining the lease, exploration
plan approval, or permission to drill. Imagine, in particular, a scheme
in which a company such as BP would be required to conduct and pub-
lish an environmental review at the time of leasing, exploration, and
drilling, and then its rights to retain any leases, exploration plan ap-
provals, or drilling permissions would be tied to the quality of the envi-

(providing that all federal agencies shall prepare environmental assessments for “major
Federal actions”).
127 See, e.g., 30 C.F.R. § 250.203–.204, .254 (2010) (regulations requiring a company
proposing to drill to prepare and submit an Oil Spill Contingency Plan).
128 See supra Parts II & III (discussing groupthink and agency capture).
129 See Jake Sherman, Walruses in the Gulf of Mexico?, POLITICO (June 15, 2010, 9:58 AM),
(quoting Congressman Markey’s explanation that in addition to BP, the spill response
plans of “three other companies include references to protecting walruses which have not
called the Gulf of Mexico home for 3 million years”).
environmen
tal review it submitted to the agency. The company also would have a duty to update its reviews, in the same way that agencies have a duty now to update their reviews under NEPA when new information comes to light.\textsuperscript{130} If it were later discovered that the company’s environmental review was conducted in a dishonest or grossly inadequate way, the lease, approval, or permission could be rescinded without the payment of any compensation.\textsuperscript{131} In the case of a rescinded lease, the government would then be free to re-release the relevant tract. In the case of a rescinded exploration plan approval or drilling plan permission, the lease would remain in place but the lessee would need to restart the process of obtaining the required approval, including the completion of an updated, adequate environmental review. In practice, rescissions of approvals of this sort would translate into real delays in resource extraction, and hence significant foregone revenue.

We label our re-conceptualization NEPA-as-contract because it would transform the NEPA environmental review process into a contractual bargain where the industry actor offers a realistic, thorough environmental review—including mitigation planning—as consideration for the receipt of the lease or government permission. From a contractual perspective, it is only right that industry should lose its benefit from the bargain if it is found out that it provided illusory consideration.\textsuperscript{132} One analogy is a contract for insurance coverage. When an individual applies for insurance, the insurance company requires the disclosure of certain information.\textsuperscript{133} If an individual fails to provide the correct information, and the company subsequently learns that is the case, the company can treat the policy as rescinded and then deny any

\textsuperscript{130} See 40 C.F.R. § 1502.9(c) (2010) (requiring agencies to prepare supplemental EISs, if “[t]here are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts”); COUNCIL ON ENVTL. QUALITY, A CITIZEN’S GUIDE TO THE NEPA: HAVING YOUR VOICE HEARD 20 (2007), available at http://ceq.hss.doc.gov/nepa/Citizens_Guide_Dec07.pdf.

\textsuperscript{131} See Mobil Oil Exploration & Producing Se. v. United States, 530 U.S. 604, 607 (2000). In Mobil Oil, the Supreme Court embraced a contractual understanding of regulation, where one party must meet its obligation or compensate the other if it does not—although, to date, it has done so to the benefit of regulated industries. See \textit{id.}; United States v. Winstar Corp., 518 U.S. 839, 895 (1996) (holding that bank regulators must compensate the regulated entity when regulators broke their promises regarding regulatory treatment of the bank). See generally David Dana & Susan P. Koniak, \textit{Bargaining in the Shadow of Democracy}, 148 U. PA. L. REV. 473 (1999) (assessing the Court’s embrace of a contract model of regulation).

\textsuperscript{132} See \textbf{RESTATEMENT (SECOND) OF CONTRACTS} § 77 (1981).

\textsuperscript{133} \textbf{JEFFREY W. STEMPHEL, STEMPHEL ON INSURANCE CONTRACTS} § 3.07[E] (3d ed. 2010).
claims under the policy.\textsuperscript{134} More broadly, contracts of all sorts may be treated as rescinded by one party if it is discovered that the other party to the contract made material misstatements at the time the contract was formed.\textsuperscript{135} For example, the seller of property implicitly warrants that it has good title and if it is later found that it does not, the buyer can elect to treat the purchase contract as rescinded.\textsuperscript{136}

For this NEPA-as-contract approach to work, there would need to be some protections against overreaching, as well as protections against the agencies simply sitting on their rights to rescind. To those ends, an agency would be required to make formal findings that an environmental review by the company was grossly inadequate and/or dishonest, and those findings would be subject to judicial review. At the same time, citizens potentially affected by the environmental risks that had come to light since the environmental review was performed could sue to challenge the agency’s failure to exercise its rescission rights. We think such suits might be brought even in venues where traditional NEPA suits currently are not pursued, because they almost always would follow an “accident” or public disclosure that draws public attention and provides a strong basis for showing that the environmental review could not have been completed in good faith and with reasonable diligence. Note, however, that in the case of an accident such as a spill involving a single company in a particular area, our proposed regime could easily result in a re-examination by the agency of all the environmental reviews by all the companies that operate in that area, as has indeed happened with respect to reviews and disclosures involving all the oil companies operating in the Gulf in the wake of the BP spill.\textsuperscript{137}

Thus, any single company would know that the quality and comprehensiveness of its environmental review and mitigation planning could be called into question with potentially disastrous financial consequences if any of the operators in the relevant area experienced a major acci-

\textsuperscript{134} Pinette v. Assurance Co. of Am., 52 F.3d 407, 409 (2d Cir. 1995) (discussing state law grounds for insurance companies to deny converge); Stempel, supra note 133, § 3.07[E].

\textsuperscript{135} Restatement (Second) of Contracts § 164.

\textsuperscript{136} See id.

\textsuperscript{137} See Reorganization and Regulatory Reform, Bureau Ocean Energy Mgmt., Regulation & Enforcement, http://www.boemre.gov/ReorganizationRegulatoryReform.htm (last visited Apr. 15, 2011) (“In response to the Deepwater Horizon explosion and resulting oil spill in the Gulf of Mexico, the Obama Administration launched the most aggressive and comprehensive reforms to offshore oil and gas regulation and oversight in U.S. history.”).
dent or was otherwise exposed as causing environmental harm or being unprepared to prevent or remediate environmental harm.\textsuperscript{138}

The NEPA-as-contract reform we propose speaks directly to our rational, ruthless calculator account of why BP never prepared for the possibility of a blowout protector failure.\textsuperscript{139} A rationally calculating BP would consider the expected costs of not acting against risk to be more significant if a strategy of silence and inaction could result in losing very valuable lease rights or exploration and drilling permissions. Indeed, from a rational calculation perspective, under our regime a company like BP would want to invest resources in environmental review and mitigation in proportion to how productive it estimated the field or other resource to be. In other words, the more expected oil, the more environmental review and thorough consideration of mitigation. Because, all else being equal, the productivity of a field will correlate with its potential for causing environmental harm, we think our proposal would create exactly the right incentives. Of course, it is true that a company like BP might believe that it could exercise its influence over an agency enough to forestall the agency from making the finding that would lead to rescission of a lease or other permission. But the even a modest possibility that the company could not avoid rescission would change its \textit{ex ante} calculations about how much to invest in environmental review and mitigation planning. Indeed, we think that heavy industry influence over agencies is a reality that should make our proposal more palatable because it goes a distance toward ensuring that agencies will not fall sway to hindsight bias and seek rescission of leases and other permissions based on the failure of company reviews to consider risks and alternatives, which could not reasonably have been anticipated before an accident or other occurrence brought new information to light.\textsuperscript{140}

We think the NEPA-as-contract reform also speaks to the group pathologies account of why BP and others did not plan for a failure of blowout protectors. By making the NEPA process one that has potentially very important implications for the company’s valuable legal

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138 We think that because of this dynamic, companies actually might come to welcome more stringent industry-wide regulatory requirements and more meaningful government review of company environmental assessments, because tougher government action might be seen as the best way to protect against rescission threats emanating from accidents or bad practices of one’s competitors.

139 See discussion \textit{supra} Part III.

rights in resource extraction, NEPA-as-contract would change corporations’ internal dynamic surrounding environmental review. Environmental review could no longer be seen as simply an obstacle, chore, or tedium to get through; it would have to be seen as something that the company had a financial stake in getting right, even if the company knew that the agency would accept whatever it submitted. Top management, in-house counsel, and very likely outside counsel would take a closer look at reviews than they currently do, and would want to assure themselves that they “covered the bases” by calling on company staff to identify any arguable holes or weaknesses that could later, perhaps years later, be used to challenge the company’s legal rights in resource extraction.

In this way, the NEPA-as-contract model would counteract the pro-drilling leadership bias that likely contributed to the groupthink dynamic.\textsuperscript{141} Company leaders would now have a strong incentive to change the culture in which the engineers always dominate the biologists and cautions about drilling are routinely dismissed.\textsuperscript{142} Much like construction companies have used a safety first culture to reduce job-site accidents, oil companies would have a powerful incentive to implement a culture that takes a hard look at potential environmental harms.\textsuperscript{143} Indeed, if this cultural shift were strong enough, group polarization effects might shift to emphasize safety and harm-mitigation much more strongly than simple regulation would predict. Similarly, group confirmation bias may shift from emphasizing that “everyone knows drilling is safe” to “everyone knows you’ve got to fully assess the risks.” As the literature on so-called “norm cascades” has made clear, once a given norm becomes adopted by a sufficient number of actors, it may reach a tipping point, after which it becomes rapidly diffused.\textsuperscript{144} Government agencies, with their strong symbiotic relationship with industry, would likely not be immune from these new norms, but even if they somehow managed to be, industry caution alone would likely be sufficient to improve the level of environmental review.

\textsuperscript{141} See supra notes 70–74 and accompanying text.
\textsuperscript{142} See Eilperin, supra note 35.
Even if groupthink continued to dominate the company, and such groupthink dismissed a spill or other disaster as essentially unthinkable, the NEPA-as-contract reform would give permission, or if you will, cover, to potentially dissenting voices within companies. Indeed, such dissenting voices could acknowledge that the groupthink was the “right think” and still argue that protection had to be taken because of other companies’ possible “human” errors. Specifically, dissenting voices could point to the legal and financial risk from another company’s error, and from the relevant agency overreaching by punishing not just that company but all the companies with rescission based on a claim that past environmental reviews were grossly inadequate or dishonest. In this way, even if NEPA-as-contract did not overcome groupthink directly, it would sharply mitigate its impact on decision-making.

Finally, one of the advantages of this approach is that it would be easy to implement. No new agencies would be needed. No new complicated regulations would be necessary. The rescission clause could simply be inserted into leases, permits, and permissions. If a federal statute were required to enable agencies to do just that, or to authorize citizen suits for agencies’ failures to rescind, the bill could be very brief. That Congress would seem very unlikely to pass such a bill, we readily admit. But a proposal can have substantive merit as a policy solution even if the road from its articulation to its political adoption is hard to envision.

We note that the linkage we advocate—between opportunities to lease, explore, and drill, and environmental disclosure and planning—could be achieved by means other than rescissions. For example, companies that were found to have performed dishonest or grossly inadequate environmental reviews with respect to existing leases could be barred from obtaining new leases for a period of time. Or perhaps they could not be barred but would be subject to a harsher royalty schedule. But we think that there is a legal coherence and even elegance in treating companies engaged in NEPA and other reviews the same as other breaching parties when they are found to have not performed their end of the deal—namely, rescinding their contracts and their rights under the contracts.


146 See Jody Freeman, The Good Driller Award, N.Y. Times, July 1, 2010, at A31 (suggesting that companies could receive preferred royalty rates for good environmental performance as “carrots”).

147 See Restatement (Second) of Contracts § 235 (1981).
commitments made to private actors as part of the regulatory process under the general reasoning of contract law.\textsuperscript{148} There is good reason that, likewise, companies should be asked to meet the commitments and back the representations they make as part of the regulatory process, and then to be subject to the contract remedy of rescission if they fail to do so.

**Conclusion**

There are two plausible accounts for the failure of environmental reviews to contemplate, let alone plan for, the sort of disaster that struck the Gulf of Mexico on April 20, 2010. The first is that agency and industry personnel, subject to a groupthink assumption concerning risk, honestly believed that such a spill was highly unlikely and that existing technology was more than adequate to deal with it.\textsuperscript{149} The second is that industry, pursuant to a rational calculation, assumed that it could externalize much of the cost of any such spill, and prevented MMS from contemplating or planning for it through various mechanisms of agency capture.\textsuperscript{150} In either case, what was missing was a powerful incentive to conduct good environmental reviews.\textsuperscript{151} We believe that existing calls to reform NEPA are insufficient to provide such an incentive, and thus call for re-conceptualizing the law along the lines of an insurance model. Under such a model, industry would be subject to losing the benefit of its bargain if environmental reviews are found to be inadequate. Importantly, implementing such a reform would not require congressional action but could simply be written into leasing and other contracts going forward.

\textsuperscript{148} See United States v. Winstar Corp., 518 U.S. 839, 895 (1996) (broadly holding that regulators can bind the United States contractually to promises they make with regulated entities). For a critique of *Winstar* as applying a private contract model to public governance to an extensive degree, see David Dana & Susan P. Koniak, *supra* note 131, at 555.

\textsuperscript{149} See *supra* notes 80–86 and accompanying text.

\textsuperscript{150} See *supra* Part III.

\textsuperscript{151} See *supra* notes 113–120 and accompanying text.