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U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-1090

Attn: File No. S7-06-16, Docket No. 33-10064, Business and Financial Disclosure Required by Regulation S-K

The Institute for Policy Integrity at New York University School of Law,¹ University of Chicago Abrams Environmental Law Clinic,² and Oceana³ respectfully submit these comments in response to the Securities and Exchange Commission's "concept release" on business and financial disclosures. Specifically, in response to the SEC's question about increasing environmental disclosures,⁴ these comments advocate for either new rules or an interpretive release with guidance clarifying the disclosure requirements around the risks from offshore oil and gas operations, particularly in frontier areas like ultra-deepwater and the Arctic Ocean.

The SEC is tasked with the tripartite mission of protecting investors; maintaining fair, orderly, and efficient markets; and facilitating capital formation.⁵ In pursuit of that mission, the SEC requires certain mandatory disclosures by issuers of securities. This disclosure regime is driven by the concept that all investors should have access to certain facts about an investment.⁶ The disclosure of meaningful information to the public creates a common pool of knowledge that investors may use to evaluate for themselves whether to buy, sell, or hold a particular security.⁷ With changing

¹ Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decision-making through advocacy and scholarship in the fields of administrative law, cost-benefit analysis, and public policy. These comments do not necessarily reflect the views of NYU School of Law, if any.

² The Abrams Environmental Law Clinic at the University of Chicago Law School challenges those who pollute illegally; fights for stricter permits; advocates for changes to regulations and laws; holds environmental agencies accountable; and develops innovative approaches for protecting and improving the environment.

³ Oceana is an international, nonprofit, marine conservation organization dedicated to using science, law, and public engagement to restore and protect the world's oceans.

⁴ 81 Fed. Reg. 23916, 23935-36 (Apr. 22, 2016).

⁵ *What We Do*, U.S. SECURITIES AND EXCHANGE COMMISSION, <http://www.sec.gov/about/whatwedo.shtml> (last visited July 18, 2016).

⁶ *Id.*

⁷ *Id.*

circumstances and the passage of time, the total mix of information that investors may value in making investment decisions may change.⁸

The *Deepwater Horizon* oil spill in 2010 made salient some of the unique risks created by offshore oil and gas operations in frontier areas. BP shareholders faced the consequences of failures in the company's safety procedures, spill response preparedness, and corporate governance. As oil and gas companies continue to expand their operations in frontier areas,⁹ such as deepwater and the Arctic Ocean, investors will continue to bear new and unique risks. These regions have features that make accidents more likely and/or more severe and response more difficult than in traditional operations. The *Deepwater Horizon* disaster and Royal Dutch Shell's failed efforts in the Arctic region¹⁰ clearly demonstrated these risks, and it is more critical than ever that investors receive better information about the risks of company plans to drill in frontier areas.

We respectfully urge the SEC to provide rules or interpretive guidance that ensure consistent and effective disclosure of material risks from offshore oil and gas activities.

Our comments are summarized in three sections:

1. Offshore Oil and Gas Operations in Frontier Areas Create Material Risks
2. The New and Unique Risks of Offshore Oil and Gas Operations in Frontier Areas Are Not Being Adequately Disclosed
3. The Commission Should Clarify Disclosure Obligations for Oil and Gas Companies

In particular, in section 3, we recommend that SEC require additional disclosure addressing:

- Estimates of the likelihood and the total cost of a catastrophic well blowout, including a description of how the company would respond both technically and financially, and in the face of those costs and how the company would be affected;
- Narrative descriptions of companies' spill prevention policies and practices, including data-based descriptions of how well those policies work in practice as well as how they are tailored to particular environments; and
- More comprehensive data on companies' day-to-day environmental, health, and safety performance.

⁸ For instance, in response to the fraudulent use of off-balance sheet items by Enron and other companies, disclosure of such items was subsequently required. See Interagency Statement on Sound Practices Concerning Elevated Risk Complex Structured Finance Activities, Release No. 34-53773, 71 FR 28326 (May 6, 2006).

⁹ NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, A BRIEF HISTORY OF OFFSHORE OIL DRILLING 15 (2010), available at <http://cybercemetery.unt.edu/archive/oilspill/20121211011815/http://www.oilspillcommission.gov/sites/default/files/documents/A%20Brief%20History%20of%20Offshore%20Drilling%20Working%20Paper%208%2023%2010.pdf> (“[M]ost experts project the world's appetite for oil and other fuels to grow for the foreseeable future.”).

¹⁰ See Section II(C) of these comments; see also Karolin Schaps, *Royal Dutch Shell Pulls Plug on Arctic Exploration*, REUTERS (Sept. 28, 2015), <http://www.reuters.com/article/us-shell-alaska-idUSKCN0RS0EX20150928>.

I. Offshore Oil and Gas Operations in Frontier Areas Create Material Risks

Under the current SEC rules, oil and gas companies must disclose in their annual reports any environmental liabilities that arise from their drilling operations and that may have a material effect on their company's financial condition. Disclosure of the material risks of operations is important to investors, and operations in Arctic and frontier areas present new and unique material risks.

A. Securities Law Requires Disclosure of Material Risk

The SEC's rules currently require, among other things, publicly-held companies to file annual reports. Domestic companies must file Form 10-K and foreign companies must file Form 20-F. Certain categories of disclosure are required in these documents. Required disclosures of material environmental risks arise under both. Further, a duty to disclose material environmental risks may arise under the general anti-fraud provisions of the Securities Act of 1933 (the "Securities Act") or the Securities Exchange Act of 1934 (the "Exchange Act").¹¹

Regulation S-K sets forth specific requirements that apply to most public filings by domestic issuers. Item 101 requires a business description that covers the effects that compliance with environmental laws may have on capital expenditures, earnings, and competitive position, as well as the amounts budgeted for such compliance.¹² Item 103 requires a description of material legal proceedings, including administrative and judicial proceedings arising from federal, state, or local environmental laws.¹³ Item 303 requires "Management Discussion and Analysis" of the company's financial condition and the results of its operations, which includes, among other things, disclosure of the known trends, demands, commitments, events, or uncertainties that the company cannot conclude would not reasonably have a material effect on its financial condition or operation results.¹⁴ Within this discussion, companies must also include disclosure of any environmental liabilities that create a reasonable likelihood of a material effect on the company's financial condition or results of operations, and any environmental accounting policies, if critical.¹⁵ Finally,

¹¹ Exchange Act Rule 10b-5 states that "It shall be unlawful for any person, directly or indirectly, by the use of any means or instrumentality of interstate commerce, or of the mails or of any facility of any national securities exchange,

- a) To employ any device, scheme, or artifice to defraud,
- b) To make any untrue statement of a material fact or to omit to state a material fact necessary in order to make the statements made, in the light of the circumstances under which they were made, not misleading, or
- c) To engage in any act, practice, or course of business which operates or would operate as a fraud or deceit upon any person,

in connection with the purchase or sale of any security." 17 CFR § 240.10b-5 (2011).

¹² 17 CFR § 229.101(c)(1)(xii) (2011).

¹³ 17 CFR § 229.103 (2011); Instruction 5 of Item 103 explicitly requires disclosure of (1) proceedings "material to the business or financial condition of the registrant", (2) proceedings "involv[ing] primarily a claim for damages, or involves potential monetary sanctions, capital expenditures, deferred charges or charges to income and the amount involved, exclusive of interest and costs, exceeds 10 percent of the current assets of the registrant and its subsidiaries on a consolidated basis" and (3) proceedings to which a "governmental authority is a party [...] and such proceeding involves potential monetary sanctions, unless the registrant reasonably believes that such proceeding will result in no monetary sanctions, or in monetary sanctions, exclusive of interest and costs, of less than \$100,000; provided, however, that such proceedings which are similar in nature may be grouped and described generically."

¹⁴ 17 CFR § 229.303 (2011).

¹⁵ *Id.*

item 503(c) requires disclosure of risk factors, which includes environmental risks such as those relating to climate change, contamination, noncompliance, litigation, and hazardous material exposure.¹⁶

Form 20-F¹⁷ also sets forth specific requirements that “foreign private issuers” must make in their annual reports. It contains several provisions that mirror those set forth in Regulation S-K, including business overview, liquidity and capital resources disclosure, trend information, and legal proceedings.¹⁸ Additionally, it asks for a description of “any environmental issues that may affect a company’s utilization of [material tangible fixed] assets.”¹⁹

The SEC disclosure regime aims to strike a balance between creating a common pool of meaningful information and “simply bur[ying] the shareholders in an avalanche of trivial information.”²⁰ To that end, typically only the disclosure of “material” information is required. Information is considered material if there a “substantial likelihood that the disclosure...would have been viewed by the reasonable investor as having significantly altered the ‘total mix’ of information made available.”²¹ As to speculative or contingent events, materiality “will depend at any given time upon a balancing of both the indicated probability that the event will occur and the anticipated magnitude of the event in light of the totality of the company activity.”²² SEC guidance documents universally accept these judicially established standards.²³

The goal of the SEC disclosure regime is to enable investors to make informed decisions. Material misstatements or omissions that render statements misleading often affect stock prices.²⁴ Market reactions alone, however, are not necessarily dispositive of materiality.²⁵ In addition, shareholders tend to be heterogeneous groups with diverse interests, with stock price performance as just one of many priorities. Some only expect to hold on to stocks for short periods of time, while others expect to hold them for decades. Some investors are diversified and are concerned about how certain of their investments affect other of their investments and interests. Finally, some investors care only about their material gain, while others are willing to forego at least some gain in exchange for allowing a company to act in an ethically and socially responsible manner.²⁶

¹⁶ 17 CFR § 229.503(c) (2011).

¹⁷ Form 20-F is viewable at <http://www.sec.gov/about/forms/form20-f.pdf>.

¹⁸ Items 4.B, 5.B, 5.D, and 8.A, Form 20-F, *supra* note 17.

¹⁹ Item 4.D, Form 20-F, *supra* note 17.

²⁰ *TSC Industries v. Northway*, 426 U.S. 438 at 448-49 (1976).

²¹ *Id.* at 449.

²² *Basic Inc. v. Levinson*, 485 U.S. 224, 238 (1988).

²³ SEC Staff Accounting Bulletin No. 99 – Materiality (SEC Release No. SAB 99 (Aug. 12, 1999)) [hereinafter SAB No. 99].

²⁴ “[T]he demonstrated volatility of the price of a registrant’s securities in response to certain types of disclosures may provide guidance as to whether investors regard quantitatively small misstatements as material.” SAB No. 99.

²⁵ “Consideration of potential market reaction to disclosure of a misstatement is by itself ‘too blunt an instrument to be depended on’ in considering whether a fact is material.” *Id.*

²⁶ Lynn A. Stout, *The Shareholder Value Myth*, THE HARV. L. FORUM ON CORPORATE GOVERNANCE AND FIN. REGULATION (June 26, 2012, 9:16 AM), <https://corpgov.law.harvard.edu/2012/06/26/the-shareholder-value-myth/>.

B. The Unique Risks of Offshore Oil and Gas Operations in Frontier Areas Are Becoming Increasingly Important to Investors

Environmental accidents in frontier areas pose serious threats to shareholder's interests, as evidenced by subsequent market reactions.²⁷ Shareholders have reacted to these threats by seeking more information via requests for additional disclosure. Investors have also looked to third parties to evaluate certain environmental risks associated with oil and gas operations in frontier areas, suggesting an appetite for greater disclosure from companies themselves.

1. Market Reactions

Environmental accidents routinely reduce shareholder value when a company's stock price subsequently drops. In the first ten days following the 1989 Exxon Valdez spill, Exxon's stock price dropped 3.9%, while the rest of the S&P rose 2.8%.²⁸ While the stock price was restored four weeks later, cumulative abnormal returns, defined as the sum of the differences between a stock's actual performance and a broad index baseline, remained -15% after 50 trading days, and -18% after 6 calendar months.²⁹

The reaction following BP's 2010 *Deepwater Horizon* spill was even more dramatic, with stock prices dropping for companies along the contractor chain. In the first ten days after the Macondo spill, shares in BP, Halliburton (the handler of drilling processes aboard the rig), and Transocean (the owner and operator of the failed rig) dropped 8% or more.³⁰ BP and Halliburton went on to experience further drops as the spill continued, with notable drops occurring on the announcement of criminal investigations 30 days after the spill began.³¹

Even smaller incidents can produce stock price impacts. Shell experienced small drops in market price following the announcement of EPA fines for the 2012 Arctic drilling season.³²

2. Investor Initiatives

A number of investor initiatives have sought improved disclosure by oil and gas companies. In the wake of the *Deepwater Horizon* oil spill, the Investor Network on Climate Risk (INCR), a coalition of more than 98 institutional investors with assets totaling over \$9 trillion, led by Ceres, a non-profit that promotes investor activism in environmental and social issues, made a request to the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling asking for the

²⁷ Negative market reactions show that at least some current investors wish to dispose of their position in a stock while potential future investors do not believe that the stock is worth the original selling price. Both show that damage caused by the incident is considered significant to potential buyers and sellers, suggesting that prospective ex ante disclosure of such risk would be material.

²⁸ Matt Phillips, *Echoes of Exxon Valdez: How does BP Stock Hit Compare?*, WALL ST. J.: MARKETBEAT (April 30, 2010, 11:40 AM), <http://blogs.wsj.com/marketbeat/2010/04/30/echoes-of-exxon-valdez-how-does-bp-stock-hit-compare/>.

²⁹ Rory F. Knight & Deborah J. Pretty, *The Oxford Executive Research Briefings, The Impact of Catastrophes on Shareholder Value (1996)*, available at http://www.iei.liu.se/program/ekprog/civilek_internt/ar_4/722a20/filarkiv_m20/1.117874/Uppsatsfrslag5VT2010-CrisisMgmtrappportOxfordUniversity.pdf

³⁰ Phillips, *supra* note 28.

³¹ *In Deepwater: BP and Exxon share prices after oil spills*, THE ECONOMIST (June 2, 2010), <http://www.economist.com/node/16270972>.

³² See <http://www.bloomberg.com/quote/RDSA:LN/chart>; then view stock price change from Sept. 6 to Sept. 9.

Commission's final report to include recommendations that the SEC "develop rules or guidance under its existing regulatory authority to ensure consistent disclosure of material offshore drilling risks."³³ The letter requested recommendations that addressed information on environmental, health, and safety performance; investment in accident and spill prevention and response; spill contingency plans; contractor selection and oversight; and governance and management systems.³⁴ Letters requesting similar information were sent on behalf of 58 global investors holding more than \$2.5 trillion in assets to 27 oil and gas companies.³⁵ Additionally, letters were sent to 26 insurance companies that back policies for the industry, asking for disclosure on whether they were considering adjusting their exposure to the industry or changing their underwriting rules.³⁶ A more recent letter was published on behalf of 62 investors holding roughly \$2 trillion, requesting more disclosures about climate-related risks and citing high-cost Arctic and deepwater drilling projects as specific reasons for concern.³⁷

Ceres has also led the INCR in a number of other investor initiatives related to risks from oil and gas operations. In 2012, Ceres filed shareholder resolutions with 18 oil and gas companies requesting disclosure of plans for managing environmental and workplace challenges relating to hydraulic fracturing, greenhouse gas emissions, and workplace safety.³⁸ In 2013, Ceres again filed shareholder resolutions with nine companies relating to environmental risks associated with hydraulic fracturing and shale gas transmissions, focusing mostly on quantitative risk reporting.³⁹ In 2014, Ceres produced a report which included an examination of corporate disclosures of sustainability risks, strategies, and performance.⁴⁰ The report included a section on oil and gas producers, which found "minimal to no engagement with stakeholders on key environmental and social issues."⁴¹ The shareholders have demonstrated their interest in greater environmental disclosure through these repeated initiatives, particularly regarding risks inherent to oil and gas operations, and the SEC should take action to ensure that companies provide this information.

³³ Letter from the INCR to Ceres letter to Senators Graham and Reilly, co-chairs of the National Commission on the BP *Deepwater Horizon* Oil Spill and Offshore Drilling (Dec. 7, 2010), <http://www.ceres.org/files/letter-to-national-oil-spill-commission-december-2010>.

³⁴ *Id.*

³⁵ *Improving Management of Deepwater Oil Drilling Risks*, CERES (June 5, 2013), <http://www.ceres.org/press/press-clips/improving-management-of-deepwater-oil-drilling-risks>.

³⁶ *Id.* See also Nathaniel Groneworld, *Investors Ask Oil, Insurance Groups to Disclose Safety Plans*, N.Y. TIMES (Aug. 5, 2010), <http://www.nytimes.com/gwire/2010/08/05/05greenwire-investors-ask-oil-insurance-groups-to-disclose-67189.html>.

³⁷ *Investors Push SEC to Require Stronger Climate Risk Disclosure by Fossil Fuel Companies*, CERES (Apr. 17, 2015), <https://www.ceres.org/press/press-releases/investors-push-sec-to-require-stronger-climate-risk-disclosure-by-fossil-fuel-companies>.

³⁸ *Investors challenge 18 oil and gas companies on climate change, hydraulic fracturing, and sustainability risks*, CERES (Feb. 8, 2012), <http://www.ceres.org/press/press-releases/investors-challenge-18-oil-and-gas-companies-on-climate-change-hydraulic-fracturing-and-sustainability-risks-1>.

³⁹ *Investors Press Oil and Gas Companies to Reduce and Report Risks from Hydraulic Fracturing Operations*, CERES (Feb. 5, 2013), <http://www.ceres.org/press/press-releases/investors-press-oil-and-gas-companies-to-reduce-and-report-risks-from-hydraulic-fracturing-operations>.

⁴⁰ *The Ceres Roadmap for Sustainability: Disclosure*, CERES (2014), <http://www.ceres.org/roadmap-assessment/progress-report/performance-by-expectation/disclosure/disclosure-gaining-ground>.

⁴¹ *The Ceres Roadmap for Sustainability: Oil & Gas Producers*, CERES (2014), <http://www.ceres.org/roadmap-assessment/sector-analyses/oil-gas-producers>.

Investor advocacy groups have also pushed for better generalized social and environmental disclosure. The Social Investment Forum (SIF), a non-profit association of over 400 professionals, firms, and organizations committed to promoting socially responsible investment decisions, published a letter to President Obama in 2009 requesting action to promote corporate social responsibility.⁴² Ceres and the INCR have also reached out to heads of major oil and gas companies requesting voluntary disclosure of climate risks.⁴³

3. *Third-party resources*

A number of consultancies have responded to the demand for information on drilling risk in frontier areas by publishing reports on the attendant risks. Among the reports are:

- ERNST & YOUNG, BUSINESS PULSE: EXPLORING DUAL PERSPECTIVES ON THE TOP 10 RISKS AND OPPORTUNITIES IN 2013 AND BEYOND: OIL AND GAS REPORT (2013).

“In our view, and that of the survey respondents, [health, safety, and environmental risk] is unquestionably the number one hazard for oil and gas companies....[A]ny perceived negligence in this area [is] penalized heavily by both regulators (who hand out enormous fines) and the wider public (whose perception of the organization responsible can be irreparably damaged.). Of course...[s]afety and environmental health are of paramount important in their own right.”

- LLOYD’S, DRILLING IN EXTREME ENVIRONMENTS: CHALLENGES AND IMPLICATIONS FOR THE ENERGY INSURANCE INDUSTRY (2011).
- SUSTAINALYTICS, THE IMPACTS AND RISKS OF DEEPWATER AND ARCTIC HYDROCARBON DEVELOPMENT (2012).
- REPRISK, SPECIAL REPORT: ARCTIC DRILLING (2013).
- MARSH RISK MANAGEMENT RESEARCH, MANAGING RISK ON THE NEW FRONTIERS OF ENERGY EXPLORATION (2013).

C. Offshore Oil and Gas Operations in Frontier Areas Create Unique Material Risks

Oil and gas operations in frontier areas pose unique dangers that investors may deem material.

1. *Operating in frontier areas is especially dangerous*

While all drilling operations carry some risk, operating in frontier areas, like deepwater or the

⁴² Social Investment Forum Letter to President Obama (January 15, 2009), “New American Leadership for Environmentally and Socially Responsible Investing and Corporate Responsibility,” *available at* http://www.ussif.org/files/Public_Policy/Comment_Letters/Office%20of%20CSR%20Letter.pdf.

⁴³ *E.g.*, WATER SCARCITY AND CLIMATE CHANGE: GROWING RISKS FOR BUSINESS AND INVESTORS, CERES AND PACIFIC INSTITUTE (February 2013), *available at* www.pacinst.org/wp-content/uploads/2013/02/full_report30.pdf (recommending six specific actions for corporations with regard to improving disclosure); *see also* E. Lynn Grayson, *Water Scarcity: A Critical Climate Change Challenge for Business*, LexisNexis Emerging Issues Analysis, 2009 Emerging Issues 4174 (August 2009).

Arctic, compounds traditional risk with additional challenges.⁴⁴

Deepwater drilling subjects equipment to low temperatures and high pressures. The modifications required to deal with this added stress are expensive and prone to failure. Deeper wells are also subject to integrity issues that stem from the increase in drilling mud and cement needed to reinforce well walls. Spills and blowouts on deepwater rigs are more difficult to contain than those onshore or in shallow waters due to their distance from containment resources.⁴⁵ Deepwater and frontier area hydraulic fracturing (“fracking”) may cause additional challenges as well. Deepwater fracking is a relatively new endeavor, and little is known about the risks.⁴⁶ However, even traditional onshore fracking comes with its fair share of risks,⁴⁷ and, like with other drilling techniques, fracking in frontier areas will likely exacerbate those risks.

Operating in the Arctic Ocean creates unique challenges and risks due to volatile climate, sea ice, and the remote location of drill sites.⁴⁸ According to a recent law review article on offshore oil and gas activities:⁴⁹

The challenges of operating in the Arctic Ocean are different, but no less severe, than those in deepwater environments.⁵⁰ These challenges include “extreme cold, extended seasons of darkness, hurricane-strength storms, and pervasive fog,” and the need to protect rich, sensitive, and important ecosystems.⁵¹ There is very limited infrastructure in the region: the nearest Coast Guard station is in Kodiak, Alaska,

⁴⁴ See NAT’L COMM’N ON THE BP DEEPWATER HORIZON OIL SPILL AND OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING 51-52 (2010), available at <http://cybercemetery.unt.edu/archive/oilspill/20121211011815/http://www.oilspillcommission.gov/sites/default/files/documents/A%20Brief%20History%20of%20Offshore%20Drilling%20Working%20Paper%208%2023%2010.pdf>.

⁴⁵ SUSTAINALYTICS, DEEPER AND COLDER: THE IMPACTS AND RISKS OF DEEPWATER AND ARCTIC HYDROCARBON DEVELOPMENT 10 (2012) [hereinafter *Deeper and Colder*], http://www.sustainalytics.com/sites/default/files/unconventional-oil-and-gas-arctic-drilling_0.pdf.

⁴⁶ David Wethe, *Deep Water Fracking Next Frontier for Offshore Drilling*, BLOOMBERG (Aug. 27, 2014), <http://www.bloomberg.com/news/articles/2014-08-07/deep-water-fracking-next-frontier-for-offshore-drilling>.

⁴⁷ Impacts to the environment include stress on surface and ground water supplies, contamination of the drinking water supply, air pollution, and other adverse impacts from discharge and disposal. See *Hydraulic Fracturing*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/hydraulicfracturing> (last updated Apr. 27, 2016).

⁴⁸ The risks and uncertainties involved in Arctic drilling efforts are so great that in early 2012, German bank WestLB institute a policy against financing any Arctic oil projects. POLICY FOR BUSINESS ACTIVITIES RELATED TO OFFSHORE OIL DRILLING AND PRODUCTION, WESTLB (Feb. 2012); Matthew Carr, *WestLB, Oil Platform Lender, Won't Do Arctic, Antarctic Business*, BLOOMBERG (Apr. 27, 2012), <http://www.bloomberg.com/news/2012-04-27/westlb-oil-platform-lender-won-t-do-arctic-antarctic-business.html>.

⁴⁹ Michael LeVine, Andrew Hartsig, & Maggie Clements, *What About BOEM? The Need to Reform the Regulations Governing Offshore Oil and Gas Planning and Leasing*, 31 ALASKA L. REV. 231, 242 (2014).

⁵⁰ See Michael LeVine, et al., *Oil and Gas in America’s Arctic Ocean: Past Problems Counsel Precaution*, 38 SEATTLE U.L. REV. 1271 (2015).

⁵¹ *Oversight Hearing on “The Final Report from the President’s National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling Before the H. Comm. on Natural Res.*, 112th Cong. 37, 38 (2011) (joint statement of the Honorable Bob Graham, Co-Chairman, National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, and the Honorable William K. Reilly, Co-Chairman, National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling); see also *Legislative Hearing on H.R. 2231 Before the Subcomm. on Energy and Mineral Res. of the H. Comm. on Natural Res.*, 112th Cong. 2-7 (2013) (statement of Michael LeVine, Pacific Senior Counsel, OCEANA).

roughly 1,000 miles from the likely locations of oil and gas exploration,⁵² and the nearest large deepwater port is in Dutch Harbor.⁵³ There is no proven method to respond effectively in icy waters, and traditional response methods may be ineffective.⁵⁴ In addition, the Arctic region is changing rapidly as a result of warming climate, and the lack of information about the marine ecosystem or those changes makes it difficult to assess or mitigate the effects of industrial activities.^{55 56}

Traditional oil and gas extraction operations create environmental risks, and those risks are exacerbated in frontier areas. Deepwater installations disturb the habitats of many large marine mammals and fish, while offshore development in the Arctic has the potential to impact important migratory paths of marine mammals and birds, sensitive habitats, and relatively untouched ecosystems. In addition, oil must be transported to shore, which also has consequences. Shoreline degradation reduces natural storm defenses, an especially important factor in storm-prone regions like the Arctic and the Gulf of Mexico.⁵⁷ Drilling operations typically discharge drilling fluids, cuttings, producing water, and domestic waste. This discharge often contains hazardous and toxic compounds.⁵⁸ As a result of the greater depth of deepwater wells, greater quantities of discharge are released.⁵⁹

In addition to the environmental consequences of normal operations, unintended discharge of waste or well oil into the environment is a possibility. There are several ways for oil to enter the environment. Potential causes include malfunctioning valves, corrosion, blowout, and human error. Spills from isolated drilling rigs take longer to contain compared to onshore or shallow water spills.⁶⁰ The environmental consequences of accidents in frontier areas can be devastating. For instance, the *Deepwater Horizon* spill is estimated to have killed an unprecedented number of

⁵² Dan Joling, *Critics Say Grounding Shows Arctic Drilling Danger*, USA TODAY, (Jan. 3, 2013), <http://www.usatoday.com/story/news/nation/2013/01/02/arctic-drilling-danger/1805577/>.

⁵³ See Deborah Zabarenko, *Arctic Oil Spill Would Challenge Coast Guard*, REUTERS (Jun. 20, 2011), <http://www.reuters.com/article/2011/06/20/us-arctic-oil-idUSTRE75J60620110620> (quoting U.S. Coast Guard Adm. Robert Papp Jr. as saying that “[t]here is nothing up there to operate from at present and we’re really starting from ground zero”).

⁵⁴ See WORLD WILDLIFE FUND, NOT SO FAST: SOME PROGRESS IN SPILL RESPONSE, BUT US STILL ILL-PREPARED FOR ARCTIC OFFSHORE DEVELOPMENT (2009), available at http://assets.worldwildlife.org/publications/401/files/original/Not_So_Fast_Some_Progress_in_Spill_Response_but_US_Still_Unprepared_for_Arctic_Offshore_Development.pdf?1345754373 (showing difficulties with spill response in Alaska); PEW ENV’T GRP., OIL SPILL PREVENTION AND RESPONSE IN THE U.S. ARCTIC OCEAN: UNEXAMINED RISKS, UNACCEPTABLE CONSEQUENCES 73–75 (2010), available at http://www.pewtrusts.org/~media/legacy/oceans_north_legacy/page_attachments/Oil-Spill-Prevention.pdf (showing the particular risks associated with drilling in the Arctic); Jacob D. Unger, note, *Regulating the Arctic Gold Rush: Recommended Regulatory Reforms to Protect Alaska’s Arctic Environment from Offshore Oil Drilling Pollution*, 31 ALASKA L. REV. 263. (2014) (proposing a multi-factor reform to better align corporate incentives and to compensate harmed individuals for losses due to oil spills).

⁵⁵ INTERAGENCY WORKING GROUP ON COORDINATION OF DOMESTIC ENERGY DEVELOPMENT AND PERMITTING IN ALASKA, MANAGING FOR THE FUTURE IN A RAPIDLY CHANGING ARCTIC 8 (2013), available at http://www.afsc.noaa.gov/Publications/misc_pdf/IAMreport.pdf.

⁵⁶ LeVine et al., *supra* note 49, at 242.

⁵⁷ See LLOYD’S, ARCTIC OPENING: OPPORTUNITY AND RISK IN THE HIGH NORTH 42-43 (2012).

⁵⁸ A representative offshore installation in the North Sea discharged 1,681,916 cubic meters of discharge water into the ocean in 2008. *Deeper and Colder*, *supra* note 45, at 10.

⁵⁹ *Deeper and Colder*, *supra* note 45, at 10.

⁶⁰ *Id.*

animals, including between 50,000 to 84,000 birds, up to 1 billion fish, and up to 8.3 billion oysters.⁶¹ 56,000 to 166,000 small juvenile and 4,900 to 7,600 larger sea turtles were killed as well.⁶² Many more species suffered as a result of the spill, and studies are still being released that show the full extent of the damage done.⁶³ Standard oil spill response tactics (e.g., mechanical containment, in situ burning) can be hampered by remoteness, ice cover, or inclement weather.⁶⁴

A catastrophic oil spill in frontier areas can also result in severe financial consequences for the oil and gas company at fault. For example, the Bureau of Ocean Energy Management estimated in 2012 that a low-volume catastrophic spill in the Chukchi Sea or the Beaufort Sea would result in damages of approximately \$10.07 billion and \$12.16 billion, respectively, in social and environmental costs; a high-volume spill would result in damages of approximately \$15.75 billion and \$27.77 billion, respectively.⁶⁵ BOEM estimated that there is a 75% chance that operations in the Chukchi Sea will lead to “one or more large spills.”⁶⁶ These figures, however, do not include all of the potential costs incurred by a catastrophic spill.⁶⁷ BP and the U.S. Department of Justice, for instance, agreed to a settlement that requires BP to pay \$20.8 billion in fines.⁶⁸ Between that settlement, the settlement of civil claims, and required payments to a Trust Fund, the *Deepwater Horizon* incident, as of July 2016, has cost BP a staggering \$61.6 billion⁶⁹

⁶¹ NAT'L OCEANIC AND ATMOSPHERIC ADMIN., *Final Programmatic Damage Assessment and Restoration Plan and Final Programmatic Environmental Impact Statement* 4-561 (2016), <http://www.gulfspillrestoration.noaa.gov/restoration-planning/gulf-plan>.

⁶² *Id.* at 4-197.

⁶³ For a list of studies completed so far, see *NOAA Studies Documenting the Impact of the Deepwater Horizon Oil Spill*, NAT'L OCEANIC AND ATMOSPHERIC ADMIN., <http://response.restoration.noaa.gov/deepwater-horizon-oil-spill/noaa-studies-documenting-impacts-deepwater-horizon-oil-spill.html>

⁶⁴ LLOYD'S, ARCTIC OPENING: OPPORTUNITY AND RISK IN THE HIGH NORTH 39 (2012) There is some argument that oil cleanup in the Arctic could be more efficient than elsewhere. Oil has lower evaporation and biological degradation rates in cold temperatures and the ice may act as a barrier between the oil and the marine environment; those facts together may promote in situ burning and enable greater recovery. However, keeping oil in place for cleanup activities creates its own problems, such as air pollution from burning, and there is a great deal of uncertainty as to where trapped oil would end up as the ice shifts.

⁶⁵ BUREAU OF OCEAN ENERGY MGMT., ECONOMIC ANALYSIS METHODOLOGY FOR THE FIVE YEAR OCS OIL AND GAS LEASING PROGRAM FOR 2012-2017, at 43 (Table 13) (June 2012) [hereinafter BOEM Economic Analysis], *available at* http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Five_Year_Program/2012-2017_Five_Year_Program/PPF%20EconMethodology.pdf

⁶⁶ BUREAU OF OCEAN ENERGY MGMT., FINAL SECOND SUPPLEMENTAL ENVTL. IMPACT STATEMENT, CHUKCHI SEA PLANNING AREA OIL AND GAS LEASE SALE 193, at Vol. 1, 154-55 (Feb. 2015), *available at* http://www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Leasing_and_Plans/Leasing/Lease_Sales/Sale_193/2015_0127_LS193_Final_2nd_SEIS_Vol1.pdf

⁶⁷ BOEM Economic Analysis, *supra* note 65, at 72 (Table 25) (“Impacts not quantified include other health effects, commercial shipping, other impacts to the OCS oil and gas industry, property values, recreational and commercial fishing, and other consumer price impacts.”)

⁶⁸ Rakteem Katakey, Del Quentin Wilber & Margaret Cronin Fisk, *BP's Record Oil Spill Settlement Rises to More Than \$20 Billion*, BLOOMBERG (Oct. 5, 2015), <http://www.bloomberg.com/news/articles/2015-10-05/bp-s-record-oil-spill-settlement-rises-to-more-than-20-billion>.

⁶⁹ Steven Mufson, *BP's Big Bill for the World's Largest Oil Spill Reaches \$61.6 Billion*, WASHINGTON POST (July 14, 2016), https://www.washingtonpost.com/business/economy/bps-big-bill-for-the-worlds-largest-oil-spill-now-reaches-616-billion/2016/07/14/7248cdaa-49f0-11e6-acbc-4d4870a079da_story.html.

2. *The dangers of operations in frontier regions increase the regulatory and litigation risk faced by oil and gas companies*

The additional risks associated with drilling in frontier areas have resulted in new regulations and careful scrutiny. These regulations and scrutiny are important for helping to promote safety and environmental protection in riskier frontier areas but can also result in costs to companies' value that can be harmful to investors if not properly disclosed. Regulatory risk includes the risk arising from noncompliance with current environmental and safety rules. Regulator-imposed penalties and fines can damage a company's financial position. Further, opponents of these operations can lobby regulators, challenge permits or seek injunctions to halt or delay exploration and extraction projects. For example, Shell's exploration plans in Alaska were delayed by litigation and permitting challenges, among other factors from 2007 through 2014.⁷⁰

Additionally, the dangers of operating in frontier areas increases the litigation risk that an oil and gas company may face, which can expose shareholders to unexpected liabilities if not properly disclosed. Litigation arising from oil and gas operations can be broadly grouped into three categories: compensation claims from harmed third-parties, shareholder suits based on mismanagement of such operations, and litigation challenging licenses and permits. Third-party suits arise from personal injury, loss of business, and environmental damages.⁷¹ The costs of litigation and paying out compensation for these claims can add up quickly and, in the case of major spills, have significant impacts on profits.⁷² Often, in the wake of major incidents, shareholders initiate their own suits against companies. The best recent examples of this phenomenon are the multitude of shareholder suits against BP, alleging that the company misled investors in the years leading up to the spill. These suits proceeded under both federal securities and state laws.⁷³ Oil company litigation by third parties and shareholders tends to be long and drawn-out, which extends and delays the financial effects of a spill incident, creating longstanding uncertainty as to the true costs.⁷⁴

⁷⁰ Letter from Peter Slaiby, Shell to Mark Fesmire, BSEE re: Shell Offshore Inc. and Shell Gulf of Mexico Inc. request for an initial five-year Suspension of Operations (July 10, 2014) (SOO Request), *available at* http://oceana.org/sites/default/files/shell_soo_request_7_14.pdf.

⁷¹ For a summary of the types of claims raised in suits filed following the Macondo spill, *see* <http://eli-ocean.org/wp-content/blogs.dir/2/files/Claims-and-Litigation.pdf>.

⁷² BP's pre-tax expenditures stemming from oil spill compensation claims following the Macondo spill was nearly \$41 billion. In the first eight months following the 1989 Exxon Valdez spill over 150 suits were filed against the company, *see* Barnaby J. Feder, *Exxon Valdez's Sea of Litigation*, NY TIMES (Nov. 19, 1989), <http://www.nytimes.com/1989/11/19/business/exxon-valdez-s-sea-of-litigation.html?pagewanted=all&src=pm>, including a class action lawsuit, where the jury originally awarded \$5 billion to the 32,500 class members (later reduced to \$507.5 million after a 20 year fight by the company). *Oil Spill Lawsuits Come Quickly*, SOUTHSOURCE (Jun. 29, 2010), <http://source.southuniversity.edu/oil-spill-lawsuits-come-quickly-23808.aspx>. Three years after the spill, Exxon paid \$1 billion to settle government lawsuits. Press Release, Entvl. Prot. Agency, Exxon to Pay Record One Billion Dollars in Criminal Fines and Civil Damages in Connection with Alaskan Oil Spill (Mar. 13, 1991), <https://www.epa.gov/aboutepa/exxon-pay-record-one-billion-dollars-criminal-fines-and-civil-damages-connection-alaskan>.

⁷³ Alison Frankel, *BP's Other Victims: Shareholders Shut Out by Morrison*, REUTERS (Nov. 15, 2012), <http://blogs.reuters.com/alison-frankel/2012/11/15/bps-other-victims-shareholders-shut-out-by-morrison/>.

⁷⁴ A class action suit against Exxon regarding effects of the 1989 Valdez spill with a jury finding against the company reached the Supreme Court in 2007 and wasn't fully resolved until 2009. *Oil Spill Lawsuits Come Quickly*, *supra* note 72. Litigation against Chevron stemming from oil exploration in Ecuador's Lago Agrio oil field has been ongoing since 1993, as the company fights what is now an \$18.2 billion judgment. Chevron has gone so far as suing the opposing counsel for

II. The New and Unique Risks of Offshore Oil and Gas Operations in Frontier Areas Are Not Being Adequately Disclosed

Despite the many unique material risks created by oil and gas operations in frontier areas, corporate disclosure to date has been inconsistent and inadequate. Out of a handful of major oil and gas companies surveyed, BP provides the most complete disclosure of these risks. This disclosure can thus be used as a baseline from which both the disclosure of other companies as well as ideal disclosure can be evaluated.

A. BP's Disclosure Is Thorough but Could Be Improved

BP currently provides the most complete disclosure of drilling risks it faces and the processes in place to mitigate those risks. Its 2015 Annual Report provides, for instance, a detailed breakdown of oil spills and loss of primary containment experienced over a multiyear period. The display shows the number of loss of containment incidents, the number of resulting spills, the number of spills to land or water, the volume of oil spilled, and the volume of oil unrecovered.⁷⁵ Additionally, the analysis includes a multiyear display of worker injury frequency and distinguishes between employees and contractors.⁷⁶

BP's governance system receives detailed treatment. A safety and operational risk (S&OR) function that provides quarterly reports directly to the CEO regarding the company's health, safety, and environmental performance is described in depth,⁷⁷ as is its operating management system (OMS), which defines BP's principles for good operating practice, conducts initial assessments of compliance and safety plans, and provides for periodic updates thereafter to cure existing or new gaps.⁷⁸ OMS also includes safety and compliance training, although criteria for such testing are omitted.⁷⁹

In its 2012 Annual Report, BP provided a fairly detailed overview on its efforts to engage in safer drilling practices, including its complying with its agreements with the U.S. government following the *Deepwater Horizon* spill, seeking independent process safety advice, and undertaking operation-specific safety improvements such as well casing design improvements and audit checklists for rig intake and start-up operating procedures.⁸⁰ In its 2015 Annual Report, BP states that it has completed all of the 26 recommendations from its internal investigation of the *Deepwater Horizon* accident, and provides a link to the list of recommendations.⁸¹

allegedly concealing and promoting fraudulent information in the case. http://articles.washingtonpost.com/2013-06-29/business/40270607_1_patton-boggs-ecuador-case-plaintiffs

⁷⁵ BP Annual Report and Form 20-F 2015, p. 43.

⁷⁶ *Id.* at 43.

⁷⁷ *Id.* at 72.

⁷⁸ *Id.* at 72.

⁷⁹ *Id.* at 45; *Id.* at 52.

⁸⁰ BP Annual Report and Form 20-F 2012, p. 47-48.

⁸¹ BP Annual Report and Form 20-F 2015, p. 43.

BP states that 52% of its hours worked in 2015 were carried out by contractors.⁸² Guidance for contractors' conformance with OMS was prepared in 2012, and the 2015 report states that OMS now includes requirements and practices for contractors.⁸³

A section on oil spill preparedness and response is also included.⁸⁴ This section mentions exercises conducted in 2015 with government regulators in planning for oil spill response.⁸⁵ Additionally, BP states that it further developed its oil spill response plan requirements in 2012. Vague discussion of specialized modelling techniques and stockpiles of dispersant is also included without discussion of how and to what extent they will allow BP to better respond to oil spills.⁸⁶ BP also states that its use of emerging technologies is enhancing its oil spill response capability, and mentions use of aerial and underwater robotic vehicles, as well as satellite imagery.⁸⁷ Information substantiating or testing this claim, however, is omitted.

Finally, BP provides a multiyear breakdown of its environmental expenditures, distinguishing between expenditure pertaining to its Gulf of Mexico oil spill response and its other environmental expenditures. These categories are further disaggregated into operating expenditures, capital expenditures, clean-up costs, additions to environmental remediation provisions, and additions to decommissioning provisions, with some discussion of the major contributions to each segment, as well as how these numbers are assessed.⁸⁸

Though thorough, and a good starting place for other companies to follow, BP's environmental disclosures still do not fully inform investors of all material risks relating to drilling in frontier areas. Suggestions for further improvement are made in Section III of these comments. But other companies do not even match the minimal level of BP's disclosures. This lack of information about the risks impedes investors' abilities to make informed decisions. With a higher level of disclosure, investors are able to more accurately understand both the risks inherent to the operations, and the company's ability to prevent and respond to such situations.

B. Other Oil and Gas Companies' Disclosures Fall Short of BP's

In contrast to BP's description of its safety programs and corresponding governance checks, other companies' disclosures remain at a high level of generality. Shell mentions a "safety-focused culture" and provides as a single example that its offshore wells are designed with at least two independent barriers to mitigate the risk of loss of containment incidents, and that these barriers are regularly tested and maintained.⁸⁹ Employees who break certain safety rules may face termination and contractors may face removal from the worksite.⁹⁰ Further information on these rules or the frequency with which such disciplinary action occurs is omitted. ConocoPhillips

⁸² *Id.* at 43.

⁸³ *Id.* at 45.

⁸⁴ *Id.* at 47.

⁸⁵ *Id.*

⁸⁶ *Id.*

⁸⁷ *Id.*

⁸⁸ *Id.* at 223.

⁸⁹ Shell Annual Report and Form 20-F 2015 at 53.

⁹⁰ *Id.*

discusses improvements in its HSE (health, safety, and environment) Management System Standard, which clarified company requirements⁹¹ Further details on these systems and processes are omitted. ConocoPhillips does not include statistics describing its injury rate and process safety incident rates, though they were included in previous reports.⁹² ExxonMobil describes its Operations Integrity Management System (OIMS) which “is a cornerstone of [its] approach to managing safety, security, health, and environmental risks, as well as to achieving excellence in performance.”⁹³ This system is said to be continually assessed and compliance is said to be regularly tested.⁹⁴ While the 11 elements of the OIMS Framework are listed, further information on how OIMS works or how it is tested is omitted.

Among Shell, ConocoPhillips, ExxonMobil, and Chevron, only Shell addresses its oil spill response plans in any detail. Shell discloses that oil spills may result in significant clean-up costs, fines, and other damages, but does not provide any estimates or analysis of what these might sum to or the impact that they might have on the company.⁹⁵ All offshore installations are said to have spill response plans in place that detail strategies, techniques, available equipment, and trained personnel and contacts.⁹⁶ Additionally, Shell says that it may call upon resources such as containment booms, collection vessels, aircraft, and the services of oil spill response organizations, and that it conducts regular exercises to ensure the continued efficacy of these plans.⁹⁷ Substantiation of these plans’ efficacy and further details of testing criteria are omitted. Shell also says that it maintains site-specific emergency response plans, but does not further describe them.⁹⁸ The number of operational spills in both 2015 and 2016, however, is included.⁹⁹ Neither ConocoPhillips nor ExxonMobil provide information regarding their oil spill preparedness. ConocoPhillips only references its membership in several Oil Spill Response Removal Organizations (OSROs).¹⁰⁰

ExxonMobil, ConocoPhillips, and Chevron (but not Shell) disclose their environmental expenditures. ExxonMobil distinguishes between capital expenditures and other expenditures, stating that these expenditures include investment in infrastructure and technology, as well as preventative and remediation steps to minimize the environmental impacts of its operations.¹⁰¹ The amount set aside for environmental liabilities is also disclosed, although the sources of these liabilities is omitted as the company finds that no individual site is expected to create material losses.¹⁰² Chevron discloses its environmental remediation reserves and additions that it has had to make over the period from 2013 to 2015, and provides a breakdown of the approximate sources of

⁹¹ ConocoPhillips 2015 Annual Report at 23.

⁹² *See, e.g.*, ConocoPhillips 2012 Annual Report at 18.

⁹³ ExxonMobil 2015 Summary Annual Report at 11.

⁹⁴ *Id.*

⁹⁵ Shell Annual Report and Form 20-F 2015 at 56.

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ ConocoPhillips 2015 Annual Report at 21.

¹⁰¹ ExxonMobil 2015 Annual Report.

¹⁰² *Id.*

its liabilities.¹⁰³ ConocoPhillips discloses its expensed and capitalized environmental costs in 2015, and its expected costs in 2016 and 2017.¹⁰⁴ It also discloses its total accrued environmental costs in both 2014 and 2015, and states that it “expect[s] to incur a substantial amount of these expenditures within the next 30 years”¹⁰⁵

Shell discloses that is subject to “a variety of environmental laws, regulations, and reporting requirements” and that noncompliance could lead to significant costs.¹⁰⁶ This disclosure, however, remains hypothetical, and Shell declares that none of the actual costs it has faced have been material.¹⁰⁷ The risk of certain operations increasing seismic activity is disclosed, although the extent and effects of this risk are not discussed.¹⁰⁸ ConocoPhillips discloses that it is subject to “numerous international, federal, state and local environmental law and regulations,” and provides a list of several of the federal and international laws.¹⁰⁹ Chevron also discloses that it is subject to “various international, federal, state and local environmental, health and safety laws, regulations and market-based programs,” and discloses its estimated worldwide environmental spending for 2015 and expected environmental capital expenditures for 2016.¹¹⁰

None of the companies discussed in this section described governance or audit processes that pertain to their safety management systems. Shell discloses that its Audit Committee does review the management of “health, safety, security, environmental and social impacts of projects and operations,” but does not list the process itself.¹¹¹ Shell does also disclose that its Committee visits Shell locations to observe how standards are being implemented.¹¹² Also, none of the companies discussed in this section included contractor risk management processes. Without this disclosure, investors lack information about the implementation of safety and risk management systems, and are unable to fully assess the companies’ ability to manage and respond to potential impacts and risks.

C. Case Study: Shell’s Disclosure Regarding 2012 Arctic Operations to Present

Shell’s problems in the Arctic Ocean have been well documented.¹¹³ The company invested more than \$7 billion to purchase leases and undertake exploration in the U.S. Arctic Ocean. After more than a decade, the company managed to complete one well and has now walked away almost entirely from its investment.¹¹⁴ The company has announced that its exploration program is

¹⁰³ Chevron Corporation 2015 Annual Report at 24.

¹⁰⁴ *Id.* at 64.

¹⁰⁵ *Id.*

¹⁰⁶ Shell Annual Report and Form 20-F 2015 at 60.

¹⁰⁷ *Id.*

¹⁰⁸ *Id.*

¹⁰⁹ ConocoPhillips 2015 Annual Report at 62.

¹¹⁰ Chevron Corporation 2015 Annual Report at 24.

¹¹¹ BP Annual Report and Form 20-F 2015 at 72.

¹¹² *Id.*

¹¹³ See Frozen Future: Shell’s Ongoing Gamble in the Arctic Ocean.
http://oceana.org/sites/default/files/reports/Shells_Frozen_Future_2_25_14.pdf

¹¹⁴ See <http://usa.oceana.org/companies-give-arctic-ocean-leases> (showing that Shell and other companies relinquished their leases).

stopped for the foreseeable future, and it has given up leases. Along the way, the company's proposals were met with litigation, controversy, and near disaster. Famously, the company's efforts in 2012 led to the grounding of its drill rig, *the Kulluk*, fines for violating permits, problems with its containment dome and spill response barge, and myriad other problems. Attachment A to this letter is a petition seeking to have the SEC open an investigation into Shell's operations. It provides additional details about Shell's problems in 2012.¹¹⁵

Shell, in its 2012 Annual Report, disclosed that "there were challenges" in its 2012 Alaskan exploration operations. Among the many challenges, Shell disclosed that the containment dome was damaged during its first full-scale deployment test, that there were challenges in moving its rigs to and from the area of operations, and that the *Arctic Challenger* was certified too late to be used during the 2012 drilling season. Shell provided further discussion of the *Kulluk's* grounding, but claimed that it "occurred after the completion of [its] exploration programme and did not involve drilling operations."¹¹⁶

Shell asserted that its drilling in the Arctic Ocean (the site of its exploratory wells) was "conducted safely, in accordance with permits and regulatory standards."¹¹⁷ However, there was no mention of the pending EPA investigation or of the special permits Shell was given with more lenient emissions standards.

More critically, Shell provided no analysis of the particular safety issues that its Arctic operations faced. For instance, despite mentioning the failure of its containment dome and its inability to deploy one of its spill containment vessels, Shell still asserted that its operations were conducted safely without providing a basis for that conclusion.

Shell also asserted its familiarity with and preparedness for drilling off of the coast of Alaska while providing no analysis regarding the problems it faced due to severe, but routine, Arctic weather. Earlier annual reports discuss plans to begin drilling in these waters and also have no discussion of the significant weather-related risks inherent in Arctic drilling operations. The permanence of these risks suggests that they ought to have been anticipated and disclosed before they materialized. However, the 2011 Annual Report only contains boilerplate language about how the company takes all necessary precautions to limit environmental risks, but that some cannot be assessed or foreseen beforehand. Similar nondescript language appears in several previous annual reports, including in 2010, 2009, 2008, and 2006.

Shell's 2014 proposed exploration plan stated that its "2012 exploration drilling operations in the Arctic were conducted safely, and with no serious injuries or environmental impact."¹¹⁸ However, a DOI review in 2013 had come to a very different conclusion, stating that "Shell's difficulties have raised serious questions regarding its ability to operate safely and responsibly in the challenging and unpredictable conditions offshore Alaska."¹¹⁹ The company's 2014 Annual Report claimed that

¹¹⁵ See Attachment A at 7-11.

¹¹⁶ Shell Annual Report and Form 20-F 2012 at 49.

¹¹⁷ *Id.*

¹¹⁸ See Sean Cockerham, *Administration Considers Whether to Allow Shell to Resume Arctic Oil Exploration*, McCLATCHYDC (Nov. 27, 2013), <http://www.mcclatchydc.com/2013/11/27/209993/administration-considers-whether.html> (quoting Shell's proposed 2014 exploration plan).

¹¹⁹ U.S. DEP'T OF THE INTERIOR, REVIEW OF SHELL'S 2012 ALASKA OFFSHORE OIL AND GAS EXPLORATION PROGRAM 16 (Mar. 8, 2013), <http://www.doi.gov/news/pressreleases/upload/Shell-report-3-8-13-Final.pdf>.

its Arctic Containment System had been improved,¹²⁰ but omitted the fact that it had not been tested and had previously been rejected as “unfeasible” in the Arctic.¹²¹

Despite its difficulties, Shell continued making efforts to operate in the Arctic. In 2015, Shell sought to undertake two simultaneous drilling operations in the Chukchi Sea, and requested approval to drill up to six wells.¹²² Eventually, the company was allowed to complete one well in the Chukchi Sea. Upon completing that well, Shell announced that it was halting its exploration program in the Arctic Ocean “for the foreseeable future.” Ultimately, the company has given up its leases and walked away almost entirely from its multi-billion-dollar investment.

Up through its 2014 report, Shell never disclosed the risk of needing to abandon all drilling efforts in the Arctic.¹²³ Better disclosure would have provided investors with a more accurate picture of the risks inherent in these activities and allowed a more informed assessment of the company’s choices.

III. The Commission Should Clarify Disclosure Obligations for Oil and Gas Companies

In order to promote consistent and effective disclosure, the SEC should clarify existing disclosure obligations for offshore oil and gas operations in frontier areas. The SEC could accomplish this either by interpreting its existing rules to require greater disclosure of environmental and financial risks related to frontier drilling, or could develop new regulations on environmental disclosures. The SEC Division of Corporate Finance has, in the past, issued expressions of its policies and practices regarding the specific kinds of disclosure that should be made in certain industries, including oil and gas, in addition to mining, banking, insurance, and real estate.¹²⁴ For instance, certain changes to oil and gas reserve reporting requirements were made in order to “provide investors with a more meaningful and comprehensive understanding of oil and gas reserves, which should help investors evaluate the relative value of oil and gas companies.”¹²⁵ These proposals were spurred by “significant changes in the oil and gas industry.”¹²⁶

¹²⁰ See Shell Annual Report and Form 20-F 2014 at 55.

¹²¹ SHELL OFFSHORE INC., BEAUFORT SEA REG’L EXPLORATION OIL DISCHARGE PREVENTION AND CONTINGENCY PLAN 4-3 (Jan. 2010), http://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Plans/Regional_Plans/Alaska_Exploration_Plans/2012_Shell_Beaufort_EP/2010_BF_rev1.pdf (“Well capping is not feasible for offshore wells from moored vessels with BOPE sitting below the mud line in a well cellar (glory hole). . . .”); *Id.* at 4-5 to 4-6 (Table 4-1) (stating that “[p]roven technology is not available” for well capping).

¹²² See SHELL GULF OF MEXICO INC., REVISED OUTER CONTINENTAL SHELF LEASE EXPLORATION PLAN: CHUKCHI SEA, ALASKA 1-2 (Mar. 2015), http://www.boem.gov/uploadedFiles/BOEM/About_BOEM/BOEM_Regions/Alaska_Region/Leasing_and_Plans/Plans/2015-03-31-EP-Revision-2.pdf

¹²³ Shell’s 2012 report explicitly mentioned that the company was were only “paus[ing]” their drilling activity in Alaska, and described it as “a long-term programme that [it] intend[s] to pursue in a safe and measured way.” See Shell Annual Report and Form 20-F 2012 at 49. While Shell mentioned the existence of drilling risks that might lead to a “loss of license to operate” in each prior report, Shell continued to describe Arctic drilling as part of its “longer-term” strategy and included it in its list of “future opportunities” in its 2014 Report. See Shell Annual Report and Form 20-F 2014 at 15. Its 2014 report also, in describing its Arctic Containment System, explicitly mentioned its “exploration season in Alaska in 2015.” It made no mention of ceasing all operations in the Arctic anywhere else in this report, or any prior reports. See *Id.*

¹²⁴ See Regulation S-K Items 801-802.

¹²⁵ See Release No. 33-6384 (Mar. 16, 1982) [47 FR 11476].

¹²⁶ *Id.*

The impetus for additional disclosure today is not technological change, but rather expansion into frontier areas that pose new and unique risks as well as greater realization and appreciation of these risks. Given that these risks have proven to be substantial, consistent and effective disclosure of particularized risks would, just as in the context of reserve reporting, provide investors with a more meaningful and comprehensive understanding of the relative value of oil and gas companies.

The guiding concern behind our recommendations is that the many risks related to offshore oil and gas drilling can have potentially devastating consequences to company valuation and thus ought to be disclosed. The drilling risks that we have described above are particular and unique to the day-to-day operations of oil and gas companies (particularly their operation in frontier offshore areas) and go well beyond the generic risks that afflict all companies. Information reflecting a company's care in its daily operations, its preparedness for worst case scenarios, and the total losses it might incur under worst case scenarios is, in aggregate, valuable to investors seeking to differentiate between companies in an industry that faces singular, large-scale risks.

A. Additional Requested Disclosure

Specifically, rules or clarification of required disclosure could occur under three broad banners: (1) catastrophic accident disclosure and management, (2) spill risk management systems and response capabilities, and (3) environmental, health, and safety performance, generally. The following are recommendations as to what information is material to investors and should be provided.

1. Catastrophic Accident Disclosure and Management

Companies should include estimates of the likelihood and the total cost of a catastrophic well blowout during both exploration and development, with a description of how the company would (1) respond technically in the face of those costs, and (2) be affected by those costs. Disclosure of this information provides investors with a better basis than currently exists to understand how a company will be able to withstand a catastrophic event. Whether a worst-case scenario will result in insolvency or simply a large loss is important to an investor in determining the relative value of firms of various sizes taking on various levels of risk.

A company should also include information about how it envisions it would absorb the financial shock from a catastrophic well blowout. This disclosure could include a disaggregated description of how the company is meeting its minimum oil spill financial responsibility for its covered offshore facilities, including contractors' insurance. It could also include description of how treasury risk management systems hedge against catastrophic offshore drilling risk through reinsurance sidecars, catastrophe bonds, and other derivative financial instruments.

2. Spill Risk Management

Companies should provide narrative descriptions of their spill prevention policies and practices, including data-based descriptions of how well those policies work in practice as well as how they are tailored to particular environments. These descriptions should include, explicitly or by integration, identification of the particular risks within drilling processes and what safeguards are in place to prevent accidents at each step. This should include disclosure of any testing performed and precautions taken at each point of the operations, and should include whether a company has prepared Integrated Operations Plans. There should also be narrative description of contractor oversight policies and practices.

The information should be supplemented by narrative descriptions of the corporate governance policies in place to ensure that these risk management policies and practices are particularized, up to date, and effective. Here, too, a company should supply investors with key performance indicators that investors may use to track its progress from year to year, and should also disclose any mechanisms in place for contractor risk management and oversight.

Companies should include narrative descriptions of plans to manage blowouts, should their drilling risk management systems fail, including information on the frequency of plan updates as well as collaboration with other companies and governments as part of response plans. Plans should detail the available response equipment, including the cost of renting or building such equipment, how and where such equipment was tested, its likely efficacy, who will operate the equipment, and how the operation will be supervised. They should also include a narrative description of the size of spills that the company is prepared to respond to, including information on the basis for the company's conclusions.

3. Other Environmental, Health, and Safety Risk Management

Companies should provide clear data on their environmental, health, and safety performance in a disaggregated manner that differentiates between personal and process incidents. While small accidents may not rise to the level of materiality on their own, a company's day-to-day performance in this context provides investors with a sense of the overall care with which the company operates, and a better sense of the likelihood that a larger accident may occur.

In addition to data on the frequency of incidents, companies should provide estimates of the potential costs posed by these risks in frontier areas.

The data should be supplemented by narrative description of policies surrounding data, e.g., whether there is third-party monitoring and auditing with reporting to the Board. Further, a company should supply investors with key performance indicators that investors may use to track its progress from year to year.

B. The Additional Requested Disclosure Can Help to Reduce Stock Price Volatility

The additional disclosures described above may serve to reduce stock price volatility following environmental disasters. After a disaster occurs, a firm's stock price may be affected by changes in investors' assessments of the probability of increased regulatory costs as well as the likelihood of other similar accidents.¹²⁷ Disasters also increase investors' awareness of the potential for and magnitude of certain risks.¹²⁸ The negative stock price effects of environmental disasters may be partially mitigated, however, if high quality information is already in place.¹²⁹

Heflin and Wallace empirically tested these propositions by examining shareholder wealth changes for the oil and gas industry as a whole following the *Deepwater Horizon* spill. They found that, while there were no shareholder wealth changes for the industry as a whole, shareholders in firms with U.S. deepwater offshore operations faced significant declines in wealth.¹³⁰ This result suggests

¹²⁷ Frank Heflin and Dana Wallace, *The BP Oil Spill: Shareholder Wealth Effects and Environmental Disclosures* at 1 (2011), available at <http://ssrn.com/abstract=1933531>.

¹²⁸ *Id.*

¹²⁹ *See id.*

¹³⁰ *Id.* at 2.

that investors increased their expectations of regulatory or disaster costs only for firms with deepwater offshore operations. Heflin and Wallace tested whether disclosures mitigated negative stock price effects by constructing environmental disclosure rating scores from various firms' 10-K reports, and found that firms with U.S. offshore operations with better environmental disclosure suffered small losses in shareholder wealth, suggesting that "investors anticipate firms with more expansive environmental disclosures are better prepared to handle potential regulatory or disaster costs following [a] spill."¹³¹

The above described disclosures, if made mandatory, would require oil and gas companies operating in frontier areas to demonstrate to investors that (i) they have identified and understood the risks they face, and (ii) they have thoroughly considered how will react to, respond to, and work to mitigate such risks. When accidents do happen, investors can have faith that companies will be able to resolve them without the prospect of massive future costs.

We look forward to the Commission's action on these comments and would gladly answer any questions the Commission or its staff has.

Sincerely,

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¹³¹ *Id.* at 3.