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Via Email and First Class Mail

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RE: Petition to Inspect Offshore Pipelines in the Pacific Ocean

The Center for Biological Diversity (the "Center") requests that you take immediate action to protect California's coastal environment from suffering the devastating impacts of yet another oil spill. Specifically, the Center petitions the Bureau of Safety and Environmental Enforcement ("BSEE") and the Pipeline and Hazardous Material Safety Administration ("PHMSA") to inspect all offshore pipelines on the Pacific Outer Continental Shelf and in state waters off the coast of California. Inspecting the more than 200 miles of offshore pipelines that litter the Pacific Ocean off California's coast would help ensure problem areas are identified and fixed before an oil spill occurs — not after.

The recent Refugio Oil Spill near Santa Barbara that dumped more than 100,000 gallons of heavy crude oil into the environment shows why dirty fossil fuel development and transportation should not be allowed along California's coast or in its offshore waters, and why offshore oil and gas development and transportation must be phased-out of these areas. But until they are, the millions of gallons of crude oil pumped through offshore pipelines every day pose a toxic threat to the people, wildlife and unique coastal environment of California.

The Plains All American pipeline that ruptured and caused the Refugio Oil Spill was 28 years old. Preliminary findings indicate that the pipeline was badly corroded, and that the company that owned and operated the pipeline did not have accurate reports on the extent of damage. Many of the offshore pipelines in the Pacific Ocean were built in the late 1960s — they

are much older than the pipeline responsible for the recent spill, and well past the 30-years of age that federal data show significantly increases the risks of failure. And these offshore pipelines face additional stressors from salt water, storms, vessel collisions and unconventional well stimulation techniques such as hydraulic fracturing that increase the risk of accidents and spills.

In other words, the pipelines off California's coast may be extensively corroded and damaged, placing California at risk of yet another devastating oil spill. While pipeline operators have some obligations to examine pipelines and repair damage, the preliminary findings regarding the cause of the Refugio Oil Spill indicate that self-policing does not lead to accurate reports on pipeline damage and corrosion. PHMSA and BSEE must therefore inspect offshore pipelines in the Pacific Ocean to ensure the safety of the public and protection of the environment, and thereby comply with their obligations under the law.

The Refugio Oil Spill Reveals the Urgent Need for Federal Inspection of Offshore Pipelines in the Pacific Ocean

On May 19, 2015, Line 901 of Plains All American Pipeline ("Plains") ruptured near Refugio State Beach in Santa Barbara County, dumping more than 100,000 gallons of heavy crude oil into the environment, fouling coastlines and threatening wildlife and coastal communities. At least 21,000 gallons spilled into the Pacific Ocean; the oil contaminated more than nine square miles of ocean and more than 90 miles of shoreline.

The oil spill has already killed hundreds of animals. So far, official reports document at least 195 dead birds and 106 dead mammals, including 16 dolphins and over 80 sea lions.[1] The State Department of Fish and Wildlife closed 138 square miles to fishing and shellfish harvesting, two State Parks were closed, and Governor Brown declared a state of emergency in Santa Barbara County. Clean-up costs have already exceeded $90 million, and the damage from the oil spill will linger for years, threatening humpback whales, sea turtles and other endangered species.[2]

While the cause of the oil spill is still being investigated, preliminary reports indicate that the spill was due to extensive corrosion of Line 901. Specifically, inspectors determined that the part of the pipeline that failed was so corroded that it degraded *to 1/16 of an inch*.[3] The inspectors also noted that this level of degradation was greater than the company's test two weeks before the oil spill that indicated the pipeline wall had decreased to 45% of its original wall thickness. That same test by Plains revealed extensive external corrosion of other portions

[1] UC Davis Veterinary Medicine, Oiled Wildlife Care Network, http://www.vetmed.ucdavis.edu/owcn/ (last updated June 26, 2015).
[2] *See e.g*., Venn-Watson, S. *et al.* Adrenal Gland and Lung Lesions in Gulf of Mexico Common Bottlenose Dolphins (Tursiops truncatus) Found Dead following the Deepwater Horizon Oil Spill. *PLoS ONE* 10, e0126538 (2015) (finding that the Deepwater Horizon oil spill continues to kill dolphins years after the spill); National Wildlife Fed'n, Five Years & Counting: Gulf Wildlife in the Aftermath of the Deepwater Horizon Disaster, 2015, *available at* http://www nwf.org/~/media/PDFs/water/2015/Gulf-Wildlife-In-the-Aftermath-of-the-Deepwater-Horizon-Disaster_Five-Years-and-Counting.pdf (documenting ongoing impacts to marine life in the Gulf of Mexico).
[3] PHMSA, Amendment 1 to the Corrective Action Order, No. CPF No. 5-2015-5011H, June 3, 2015, *available at* http://www.phmsa.dot.gov/pipeline/phmsa-statement-regarding-the-crude-oil-pipeline-release-in-santa-barbara-county-california.

of the pipeline, with the deepest metal loss of 74% of the original pipe wall thickness.[4] In light of all of this information, PHMSA officials found that that continued operation of Line 901, as well as and Line 903, "would be hazardous to life, property, or the environment" and ordered it shut down unless and until Plains took several specific corrective actions.[5]

Ruptured portion of Plains pipeline, Line 901 Photo credit: Bruce Reitherman/Santa Barbara County

The Plains pipeline accident and Refugio Oil Spill show that pipelines pose a toxic threat to people and wildlife in California. Offshore, or subsea, pipelines in the Pacific Ocean increase that threat given the significant age of the pipeline systems and the added stressors inherent in the ocean environment.

The Plains pipeline that ruptured on May 19 was built in 1987. The environmental impact statement that was prepared for the construction and operation of the Plains pipeline in 1985 by the Bureau of Land Management and California State Lands Commission acknowledged that spills happen, and determined that the risk of a spill *more than doubles* as the pipeline aged from 20 to 40 years.[6] Many of the offshore pipelines in the Pacific Ocean have reached 40 years of age. For example, the offshore pipeline running from Platform Holly to the Ellwood Onshore Facility is 42 years old, with a surf-zone crossing that was replaced in 1997. A "June 2010 inspection of the crude oil emulsion pipeline identified 'extensive' corrosion, primarily internal and found along the bottom half of the pipeline, ranging in wall loss from 20 percent to 67.3 percent."[7]

According to scientists, aging poses risks of corrosion, erosion and fatigue stress to subsea pipelines.[8] Subsea pipeline corrosion appears to accelerate over time,[9] and can act

[4] *Id.*
[5] *Id.*
[6] California State Lands Commission & Bureau of Land Management, Draft Environmental Impact Report/ Environmental Impact Statement for the Celeron/All American And Getty Pipeline Projects (Aug. 1984) at 4-166.
[7] County of Santa Barbara, Line 96 Pipeline Modification Project Final Environmental Impact Report at 4.2-10 (June 2011) (noting that the EIR stated that none of the defects warranted replacement or repair).
[8] Petroleum Safety Authority Norway. 2006. Material Risk – Ageing offshore installations. Prepared by Det Norske Veritas on request from Petroleum Safety Authority Norway. Available at http://www.psa.no/report-archive/category1033 html.

synergistically with fatigue stress to increase the rate of crack propagation.[10] Marine environments are especially known to produce significant corrosion on steel surfaces, and when a steel structure is at or beyond its elastic limit, the rate of corrosion increases 10-15%.[11] One offshore pipeline study found that after 20 years the annual probability of pipeline failure increases rapidly, with values in the range of 0.1 to 1.0, which equates to a probability of failure of 10% to 100% per year.[12] Another study covering 1996-2010 found that accident incident rates, including spills, increased significantly with the age of infrastructure.[13]

The U.S. Department of Transportation itself found that offshore pipelines can be more vulnerable than onshore pipelines. They have a greater vulnerability to severe weather conditions than onshore pipelines, especially during hurricane events. And massive wave action can alter the pipeline stability, causing gradual displacement, especially in small diameter pipelines.[14] Offshore pipelines can also face more corrosion than onshore pipelines due to higher temperature and pressure conditions that occur during the laying of these pipelines.[15]

Consistent with these findings, a report published in 2010 found that the number of oil spills from offshore rigs and pipelines between 2000 and 2009 *more than quadrupled* the rate of spills in prior decades.[16] In particular, from the early 1970s through the 1990s, offshore rigs and pipelines averaged about four spills per year of at least 50 barrels (or 2,100 gallons). The average annual total skyrocketed to more than 17 from 2000 to 2009, and averaged 22 per year from 2005 to 2009 alone.[17] And the number of spills, as well as the quantity of spilled oil, grew significantly worse even when taking increased production in account.[18]

In other words, another oil spill in California's ocean environment is not a question of if, but a question of when. And while BSEE and PHMSA require operators to inspect offshore pipelines, such self-policing does not lead to accurate or complete information. Indeed, when asked about the cause of the recent Refugio Oil Spill and the level of corrosion of the pipeline by California state legislators at a legislative hearing on the oil spill, Patrick Hodgins, Senior

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[9] Mohd, M.H. and J.K. Paik. 2013. Investigation of the corrosion progress characteristics offshore oil well tubes. Corrosion Science 67:130-141.
[10] PSA Norway 2006.
[11] Mohd, M.H. and J.K. Paik (2013) Investigation of the corrosion progress characteristics of offshore subsea oil well tubes. Corrosion Science 67: 130-141; A. Igor, R.E. Melchers, Pitting corrosion in pipeline steel weld zones, Corros. Sci. 53 (12) (2011) 4026–4032; R.E. Melchers, M. Ahammed, R. Jeffrey, G. Simundic, Statistical characterization of surfaces of corroded, Mar. Struct. 23 (2010) 274–287.
[12] Bea, R., C. Smith, B. Smith, J. Rosenmoeller, T. Beuker, and B. Brown. 2002. Real-time Reliability Assessment & Management of Marine Pipelines. 21st International Conference on Offshore Mechanics & Arctic Engineering. ASME.
[13] Muehlenbachs, et al. 2013. The impact of water depth on safety and environmental performance in offshore oil and gas production. Energy Policy 55:699-705.
[14] U.S. Department of Transportation: Federal Highway Administration. Impacts of Climate Change and Variability on Transportation Systems and Infrastructure: The Gulf Coast Study, Phase 2. 2015.
[15] Keuter, J. (2014). In-line Inspection of Pipes Using Corrosion Resistant Alloys (CRA). Rosen Technology and Research Center GmbH, Rosen Group, Germany; Standard Oil Company (1981) Drilling fluid bypass for marine riser. U.S. Grant. US4291772 A.
[16] Alan Levin, *Oil Spills Escalated in this Decade*, USA Today, June 8, 2010, *available at* http://usatoday30.usatoday.com/news/nation/2010-06-07-oil-spill-mess_N htm.
[17] *Id.*
[18] *Id.*

Director of Safety and Security for Plains, responded that "[t]he first time I heard anything about the corrosion is what I read in the papers" and that he was "shocked" by that news.[19]

BSEE and PHMSA must therefore inspect offshore pipelines in the Pacific Ocean and ensure the safety of the public and protection of the environment, and thereby comply with their obligations under the law. Inspecting offshore pipelines on the Pacific OCS and in California state waters would help ensure problem areas are identified and fixed before a devastating oil spill occurs — not after.

The Agencies Have a Legal Duty to Ensure Safe Operations of Offshore Pipelines and Have the Authority to Inspect Offshore Pipelines

BSEE and PHMSA have more than ample authority to grant this inspection request. Indeed, both agencies have a legal obligation to ensure that pipelines are operated in a manner that protects public health, public safety and the environment from the grave dangers inherent in oil and gas transportation.

The Outer Continental Shelf Lands Act ("OCSLA") prescribes a procedural framework under which the Department of the Interior may lease areas of the outer continental shelf ("OCS") for purposes of exploring and developing the oil and gas deposits of the OCS's submerged lands. 43 U.S.C. §§ 1331, *et seq*. OCSLA specifically requires that oil exploration and production be balanced "with protection of the human, marine, and coastal environments," *Id.* § 1802(2), and requires BSEE to ensure that oil and gas activities on the OCS are carried out in a manner that provides for safety and protection of the environment, among other considerations. *Id.* § 1337(p)(4).

To meet these goals, OCSLA mandates that BSEE require offshore oil and gas operators to use the best available and safest technologies that are economically feasible where failure of equipment would have a significant effect on safety, health or the environment. *Id.* § 1347(b). BSEE's regulations require, *inter alia*, that pipelines and associated valves, flanges and fittings be designed, operated and maintained in a manner that provides safe and pollution-free transportation of fluids, 30 C.F.R. § 250.1000(a), and contain specific requirements for offshore pipeline installation, testing and repairs. *Id.* §§ 250.1003; 250.1005; *see also id*. § 250.1004 (pipeline safety equipment requirements, including flow safety valves and automatic shutdown valves).

OCSLA also requires BSEE to conduct scheduled and unscheduled inspections to ensure compliance with control technology requirements and other regulations. 43 U.S.C. § 1348(c). The statute specifically mandates that holders of an offshore oil and gas lease or permit "allow prompt access at the site of any operation subject to safety regulations to any inspector" and provide any records "pertinent to occupational or public health, safety, or environmental protection" requested by the inspectors. *Id.* § 1348(b)(3). Such requirements help to ensure the protection of public safety and the environment from the risks inherent in oil and gas development and transportation.

[19] *See e.g.*, Steve Lopez, Pipeline Firm Aims to Control Conversation on Santa Barbara Oil Spill, LA Times, July 1, 2015, *available at* http://www.latimes.com/local/california/la-me-0701-lopez-spill-20150701-column.html.

Similarly, PHMSA also has a duty to protect the public and the environment from the dangers of transporting oil by pipeline. Specifically, the Pipeline Safety, Regulatory Certainty and Job Creation Act ("PSA"), 49 U.S.C. §§ 60101, *et seq*., seeks to "provide adequate protection against risks to life and property posed by pipeline transportation and pipeline facilities by improving the regulatory and enforcement authority of [PHMSA]." *Id.* § 60102. Accordingly, the PSA requires PHMSA to establish safety standards for pipeline transportation and facilities to protect public safety and the environment. *Id*. § 60102(a), (b). The PSA also mandates that PHMSA conduct inspections and require appropriate testing of pipelines, *id*. § 60108(b), and "establish a mandatory, systematic, and where appropriate, periodic inspection program of all offshore pipeline facilities." *Id.* § 60108(c).

To carry out these duties, the PSA provides PHMSA with broad information gathering powers to assist in carrying out the statute. Specifically, the PSA includes the following provision:

> An officer, employee, or agent of the Department of Transportation designated by the Secretary, on display of proper credentials to the individual in charge, may enter premises to inspect the records and property of a person at a reasonable time and in a reasonable way to decide whether a person is complying with [the PSA] and standards prescribed or orders issued under [the PSA].

49 U.S.C. § 60117. The PSA requires owners and operators of pipeline facilities to allow entry and inspection of pipeline facilities. *Id*. at § 60118(a)(3).

The importance of pipeline inspections to the statutory scheme are underscored by the numerous mechanisms PHMSA has in the event a pipeline company refuses entry to an inspector. For example, the statute authorizes PHMSA to issue a compliance order demanding entry in the event a pipeline owner or operator declines to permit such entry and inspection of a pipeline facility, *id*. at § 60118(b), and the imposition of civil penalties on "a person who obstructs or prevents [PHMSA] from carrying out inspections or investigations…." *Id*. at § 60118(e)(2)(A).

In recognition of these various requirements, and to avoid duplication of effort, BSEE and PHMSA have a memorandum of understanding ("MOU") regarding the regulation and inspection of offshore pipelines. Under the MOU, BSEE has authority over OCS pipelines located upstream of the point at which operating responsibility transfers from a producing operator to a transporting operator, and PHMSA has authority over pipelines downstream of that point to shore.[20] BSEE also has jurisdiction over producer pipelines that cross into state waters without first connecting to a transporting operator's facility on the OCS, though a facility can choose the regulatory boundaries by petitioning the agencies to operate under PHMSA's regulations regarding pipeline design, construction, operation and maintenance.[21] Under the

[20] Memorandum of Understanding Between the Department of Transportation and The Department of the Interior Regarding Outer Continental Shelf Pipelines, Dec. 10, 1996, *available at* http://www.bsee.gov/WorkArea/DownloadAsset.aspx?id=85899347674; 63 Fed. Reg. 43,876 (Aug. 17, 1998); 68 Fed. Reg. 46,109 (Aug. 5, 2003).

[21] 68 Fed. Reg. at 46,109; 49 C.F.R. § 191.1.

MOU, BSEE performs authorized inspection tasks for OCS pipelines under PHMSA's jurisdiction, as an agent of PHMSA.[22] However, the agencies may perform joint inspections of pipeline segments and facilities where either has jurisdiction.[23]

BSEE and PHMSA must exercise their ample authority to inspect the more than 200 miles of offshore pipelines that litter the waters off California's coast. The recent Refugio Oil Spill highlights that the industry's self-policing is inadequate, and that the pipelines might be badly corroded or otherwise damaged. Inspecting these offshore pipelines is therefore necessary to ensure the protection of public health, safety and the environment from the dangerous threat of oil transportation.

Conclusion

The recent Refugio Oil Spill near Santa Barbara that dumped more than 100,000 gallons of heavy crude oil into the environment shows that self-policing by the industry does not work. The spill also highlights why dirty fossil fuel development and transportation should not be allowed along California's coast or in its offshore waters, and why offshore oil and gas wells and infrastructure in these areas must be decommissioned. But until they are, the millions of gallons of crude oil pumped through offshore pipelines every day pose a toxic threat to the people, wildlife and unique coastal environment of California.

Many of the more than 200 miles of offshore pipelines littering the Pacific Ocean off California's coast were built in the late 1960s, are much older than the Plains pipeline responsible for the recent spill, and well past the 30 years of age that federal data show significantly increases the risks of failure. BSEE and PHMSA must therefore inspect these pipelines to ensure that any corrosion or other damage is discovered and repaired, thereby preventing the real possibility of yet another devastating oil spill from becoming a reality.

Sincerely,

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[22] MOU, *supra* n. 20.
[23] *Id.*