*** Alliance for the Great Lakes * Center for Biological Diversity ***
*** FLOW (For Love of Water) * National Wildlife Federation ***
*** Natural Resources Defense Council ***

January 8, 2016

Pipeline and Hazardous Materials Safety Administration
U.S. Department of Transportation
East Building, 2nd Floor
1200 New Jersey Ave., SE
Washington, D.C. 20590

Re: PHMSA-2010-0229-0041, Notice of Proposed Rulemaking on Safety of Hazardous Liquid Pipelines

Sir or Madam,

Please accept these comments on behalf of the Alliance for the Great Lakes, Center for Biological Diversity, FLOW (For Love of Water), National Wildlife Federation, and Natural Resources Defense Council regarding the Pipeline and Hazardous Materials Safety Administration's ("PHMSA's") Notice of Proposed Rulemaking ("NPRM") on the safety of hazardous liquid pipelines. We are pleased that PHMSA is contemplating action to enhance pipeline safety, but the proposed rules fail to properly address many important concerns which recent pipeline accidents have brought to light.

As PHMSA notes in the introduction to its NPRM, the 2010 Marshall, Michigan, incident and ensuing multi-year cleanup process marked the first of several major pipeline incidents that indicate that our current regulatory framework is insufficient for preventing, detecting, stopping, and cleaning up hazardous material pipeline spills. Subsequent incidents resulting in major releases in Mayflower, Arkansas,[1] Santa Barbara, California,[2] and Glendive, Montana,[3] to name a few, provide further evidence of the problem. However, though PHMSA acknowledges that these issues demand action, its NPRM reveals that the scope of its proposed changes is overly narrow and the proposal must be significantly expanded to meet the recommendations of the National Transportation Safety Board ("NTSB"), the National Academy of Sciences ("NAS"), and PHMSA's own investigations.

Thus, the following comments provide recommendations for expanding the scope of PHMSA's current rulemaking. In Part I, they address the need to expand the scope of definitions applicable to "high consequence areas" and "unusually sensitive areas. In Part II, they address the need for additional measures related to flow control technologies. In Part III, these comments address

[1] Jonathan Stempel, *Exxon Mobil to Pay $5.07 Million for 2013 Arkansas Oil Spill*, Reuters, April 22, 2015, http://www.reuters.com/article/us-exxonmobil-settlement-idUSKBN0ND1FU20150422.
[2] Javier Panzar, *Texas Firm in Santa Barbara Oil Spill Ordered to Fix "Probable" Safety Violations*, L.A. Times, Sept. 11, 2015, http://www.latimes.com/local/lanow/la-me-ln-pipeline-spill-violations-20150911-story.html.
[3] Mont. Dept. of Envtl. Quality, Poplar Pipeline Oil Spill on the Yellowstone River Near Glendive (updated Nov. 23, 2015), http://www.deq.mt.gov/yellowstonespill2015.mcpx.

valve spacing. In Part IV, these comments address the new "stress corrosion cracking" measures. In Part V, these comments address PHMSA's failure to include strengthened oil spill response measures in its NPRM. And finally, in Part VI, these comments address specific provisions contained in the NPRM's proposed regulatory text. As these comments demonstrate, there is a pressing need for PHMSA to adopt further regulatory measures to diminish the risks associated with the pipeline transport of hazardous liquids.

I. High Consequence Areas

The scope of High Consequence Areas ("HCAs") should be broadened to cover more environmentally-sensitive areas. Congress directed the Department of Transportation ("DOT"), which oversees PHMSA, to consider areas where damage caused by a pipeline spill would "likely cause permanent damage or long-term environmental damage" in 1996.[4] However, the Presidential memorandum which accompanied the amendment directed DOT to also consider the potential for short-term damage from spills[5] and noted that Unusually Sensitive Areas ("USAs") should not be limited to those explicitly stated in the act's text.[6] In addition, the Environmental Protection Agency and Department of Justice "strongly urged" DOT to classify more areas as HCAs.[7]

A. PHMSA should lower the threshold level for "high population" and clarify "other populated area."

HCAs currently protect "high population areas" and "other population areas," as defined by the Census Bureau. High population areas are areas that contain 50,000 or more people and have a population density of at least 1,000 people per square mile.[8] This definition sets arbitrary numerical population thresholds, excluding important areas from protection as HCAs. "Other population areas" are places containing "a concentrated population, such as an incorporated city, town, village, or other designated residential or commercial area."[9]

The numerical thresholds for "high population areas" should be lowered. The current definition produces unfair results, providing protection to an area with 51,000 persons but not an area of 49,000 persons, or denying coverage to a population of over 50,000 if the density falls just short of 1,000.

Although "other population areas" seem to provide back-up protection to areas not classified as "high population areas," some areas still remain unprotected. "Other population areas" are based on a concentration requirement, indicating that protection may be denied to more sparsely

[4] 49 U.S.C.A. § 60109(b).
[5] Pipeline Safety: Areas Unusually Sensitive to Environmental Damage, 64 Fed. Reg. 73464, 73465 (Dec. 30, 1999).
[6] Pipeline Safety: Areas Unusually Sensitive to Environmental Damage, 64 Fed. Reg. 73464 (passim) (Dec. 30, 1999).
[7] Pipeline Integrity Management in High Consequence Areas (Hazardous Liquid Pipeline Operators with 500 of More Miles of Pipeline), 65 Fed. Reg. 75378, 75391 (Dec. 1, 2000).
[8] 49 C.F.R. § 195.450(2) (2015).
[9] 49 C.F.R. § 195.450(3) (2015).

populated residential areas that nevertheless contain a fairly large population, such as farms and even some residential neighborhoods.

PHMSA should eliminate numerical definitions and instead define a HCA in terms of the distance a discharge from a pipeline is likely to travel. This would afford protection to less populated areas along routes of pipelines. In addition, PHMSA should amend the definitions of "high population area" and "other protected area" to protect all residential and commercial areas.

B. PHMSA should expand High Consequence Areas by revising the definition of Unusually Sensitive Areas.

Unusually Sensitive Areas ("USAs") currently include drinking water and ecological resources. However, because USAs seem to only apply to areas where a pipeline spill could cause long-lasting or permanent damage, the current regulations omit important areas.[10] HCAs should include areas of transportation infrastructure (such as rail crossings and major roadways), public lands, all populated areas (based on the Class 2 location definition under 49 C.F.R. § 192.5), waterways and wetlands protected by the Clean Water Act, waterways used for subsistence and recreation, wild and scenic rivers, as well as places of ecological, cultural or national significance (*i.e.*, national parks and monuments, etc.).

PHMSA justifies not including these important areas in HCAs on the ground that it is in the process of proposing standards for non-integrity management pipelines.[11] However, non-integrity management pipelines receive less careful risk analysis and less comprehensive safety planning than IM pipelines. Therefore, new standards for non-integrity management pipelines would only provide a fraction of the protection that HCAs are given.

PHMSA also asserts that the "use of a more lenient standard in making HCA determinations would not provide adequate protection for these sensitive areas."[12] However, PHMSA does not cite to any studies to support such a conclusion. Furthermore, in making these assertions, PHMSA essentially agrees that its current definition of HCAs with regard to USAs is inadequate to protect these sensitive areas, and it seems illogical for PHMSA to agree that these areas are "sensitive" yet fail to provide them heightened protection as HCAs in a timely manner.

PHMSA should immediately address the inclusion of subsistence areas, as well as ecologically, culturally, and nationally significant areas that would be greatly affected by a pipeline spill, even if the effects would not be permanent. Addressing such areas in a separate rulemaking process could take years, risking the loss of important and invaluable resources. Furthermore, Congress specifically directed the DOT Secretary, "[w]hen describing areas that are unusually sensitive to environmental damage if there is a hazardous liquid pipeline accident," to consider areas such as

[10] *See* Carol M. Parker, Primer on Pipeline Safety Laws and Regulations 13 (Sept. 5, 2004), http://pstrust.org/docs/pipeline_safety_regs_primer.pdf.
[11] 80 Fed. Reg. 61610, 61622 (Oct. 13, 2015).
[12] 80 Fed. Reg. 61610, 61622 (Oct. 13, 2015).

"national parks, wilderness areas, wildlife preservation areas or refuges, wild and scenic rivers . . . or critical habitat areas."[13]

1. PHMSA should expand USAs to better protect endangered and threatened species.

The criteria for an USA ecological resource currently do not provide sufficient protection to endangered and threatened species. In terms of species, only those with large ranges or the areas designated as occupied are included.[14] This leaves out other areas that are geographically smaller but may be necessary to a species' or population's survival.[15] Even where a species meets the minimum concentration threshold, PHMSA can preclude HCA protection if it determines there is insufficient data. For instance, DOT considered defining USAs to include colonial water bird nesting sites based on research gathered by state agencies, but ultimately declined to do so because of variability in the format and availability of the data.[16]

In order to align with Congress's intent to protect endangered species, PHMSA should also classify any area containing critical habitat as a USA. PHMSA should also include areas containing "vulnerable species," as defined by the Nature Conservancy's Global Conservation Status Rank.[17]

2. PHMSA should afford greater protection to water supply systems as USAs.

PHMSA should provide water supply systems with the greatest protection. Currently, water supply systems are only protected as USAs where there is no "adequate alternative drinking water source."[18] An "adequate alternative drinking water source" is a currently existing water source that can meet the needs of the impacted population for at least a month for a surface water source and six months for a groundwater source.[19] To ensure adequate and secure access to drinking water, water supply systems should be classified as USAs regardless of the existence of an alternative source.

As evidenced by the Kalamazoo River oil spill, a month's worth of alternative water supply could be insufficient to meet public needs, as clean-up efforts in response to spills from hazardous liquid pipelines can take up to a year or more.[20] Furthermore, droughts or other unexpected circumstances may affect the alternative water supply, such that it may no longer

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[13] 49 U.S.C.A. § 60109(b).
[14] Pipeline Safety: Areas Unusually Sensitive to Environmental Damage, 65 FR 80530-01, 80537 (Dec. 21, 2000).
[15] National Wildlife Federation, After the Marshall Spill: Oil Pipelines in the Great Lakes Region 8 (2012), https://www.nwf.org/pdf/Tar-Sands/Oil_Pipelines_in_the_Great_Lakes_Region_Report_v3_(2).pdf.
[16] Pipeline Safety: Areas Unusually Sensitive to Environmental Damage, 65 FR 80530-01, 80535 (Dec. 21, 2000).
[17] Nature Conservancy, National and Subnational Conservation Status Ranking Definitions, http://explorer.natureserve.org/nsranks.htm.
[18] 49 C.F.R. § 195.6(a)(1-2) (2015).
[19] 49 C.F.R. § 195.6(c) (2015).
[20] Alex Mitchell, *Timeline of Major Events in Kalamazoo River Oil Spill*, MLive (July 20, 2015) http://www.mlive.com/news/kalamazoo/index.ssf/2015/07/kalamazoo_river_oil_spill_time.html.

serve as a true alternative. In a situation of drought, it is doubtful that PHMSA would be able to quickly upgrade an area to USA status and ensure the added protections are implemented. Therefore, places that experience unexpected drought could have their back-up water supply compromised, offering them no alternative in the case of a spill into their normal water supply. States like California are currently experiencing extreme drought, and it is likely that drought will become more commonplace and severe as a result of climate change.

Protection should be afforded to all aquifer recharge areas, as opposed to just karst aquifers as the rule currently prescribes.[21] Large aquifers, such as the Ogallala, also warrant protection as HCAs. Groundwater supplies are being depleted at a rapid rate.[22] Since 2000, the groundwater depletion rate has been 25 cubic kilometers (6 cubic miles) per year, an increase from the 1900 to 2008 rate of 9.2 cubic kilometers (1.48 cubic miles).[23] Climate change and water-intensive uses of groundwater, such as fracking, threaten to further deplete the water supply. It is therefore vital that groundwater resources receive the utmost protection from pipeline spills.

C. Increased Public Input into the HCA Process

As noted by PHMSA, the Pipeline Safety Act of 2011 encourages transparency about HCAs and pipelines generally by requesting PHMSA to maintain a map of HCAs, establish a program spreading awareness of the National Pipeline Management Systems, and issuing guidance for the provision of pipeline information to first-responders.[24] However, more could and should be done to inform and involve the public. The map of HCAs should have clearly defined boundaries and there should be an associated platform that allows the public and local governments to provide feedback as to whether or not they think an area was improperly classified.

II. Flow Control Technology

A. PHMSA should issue requirements prescribing Emergency Flow Restricting Devices ("EFRD") use in particular circumstances.

By 1994, Congress required the Office of Pipeline Safety to "survey and assess the effectiveness of emergency flow restricting devices,"[25] and within two years, "prescribe standards on the circumstances under which an operator of a hazardous liquid pipeline facility *must* use an emergency flow restricting device."[26] Such an analysis was never issued. PHMSA currently allows pipeline operators to determine if an EFRD is needed through their own operator pipeline risk analysis, even if the pipeline segment is located in a HCA.[27] PHMSA should mandate the

[21] 49 C.F.R. § 195.6 (a)(3) (2015).
[22] Dennis Dimick, *If You Think the Water Crisis Can't Get Worse, Wait Until the Aquifers Are Drained*, National Geographic, Aug. 21, 2014, http://news.nationalgeographic.com/news/2014/08/140819-groundwater-california-drought-aquifers-hidden-crisis/.
[23] *Id.*
[24] 80 Fed. Reg. 61610, 61624 (Oct. 13, 2015).
[25] 49 U.S.C.A. § 60102(j)(1).
[26] 49 U.S.C.A. § 60102(j)(2) (emphasis added).
[27] 49 C.F.R. 195.452(i)(4) (2015); 80 Fed. Reg. 61610, 61627 (Oct. 13, 2015).

installation of EFRDs on *all* pipelines and should prescribe the circumstances and locations that warrant EFRDs. At the very least, such a mandate should apply to pipelines located in HCAs and USAs.

Although PHMSA requires pipeline operators to consider certain factors in analyzing whether or not an EFRD is necessary to protect a HCA,[28] this discretion seems contrary to Congress's intent as expressed in 49 U.S.C.A. § 60102.[29] PHMSA only requires operators to maintain a record of their analyses for inspections, and therefore such analyses are not subject to agency review or approval. The wide discretion given to operators makes PHMSA's approach towards EFRDs essentially unenforceable. To fulfill Congress's intent and more effectively prevent oil spills, a review and approval process is necessary to catch errors before they lead to a spill. This process would more closely align with Congress's intent based on their request to OPS to provide standards for the use of EFRDs.

In addition, EFRD technology should be installed on all pipelines that traverse HCA areas generally, as opposed to simply when an operator determines through their own risk assessment that an EFRD is necessary.[30] PHMSA should not defer requiring this while it studies the issue.[31] PHMSA should address the application of EFRD in HCAs by amending the current rule now.

B. PHMSA should include a requirement for best available technology, especially for automatic shut-off valves, in its new regulations.

We strongly urge PHMSA to include regulations requiring the installation of automatic shutoff valves for all pipelines, rather than for just those that are newly built or have been entirely replaced.[32] PHMSA should not defer this until the future[33] because a delay would perpetuate serious risks associated with the regulations requiring automatic shutoff valves. The May 2015 pipeline spill in California of more than 100,000 gallons of crude oil demonstrates the pressing need for automatic shutoff technology for all federally regulated pipelines.[34]

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[28] 49 C.F.R. 195.452(i)(4) (2015); 80 Fed. Reg. 61610, 61627 (Oct. 13, 2015). ("Part 195 requires that EFRDs be considered as [a] potential mitigation measure on pipeline segments that could affect HCAs, but it does not specify any particular location for the use of those devices.")

[29] "The purpose of this chapter is 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 the Secretary of Transportation." 49 U.S.C.A. § 60102(a)(1).

[30] 49 C.F.R. § 195.452(i)(4) (2015) ("If an operator determines than an EFRD is needed on a pipeline segment to protect a high consequence area in the event of a spill, an operator must install the EFRD.") ; 80 Fed. Reg. 61610, 61630 (Oct. 13, 2015).

[31] 80 Fed. Reg. 61610, 61630 (Oct. 13, 2015).

[32] Alex Kacik, *Feds Propose Tougher Oil Spill Safety Tracks*, Pacific Coast Business Times, Oct. 2, 2015, http://www.pacbiztimes.com/2015/10/02/feds-propose-tougher-oil-pipeline-safety-rules/.

[33] 80 Fed. Reg. 61610, 61628 (Oct. 13, 2015). ("PHMSA is studying issues concerning the development of additional safety standards for the use of EFRDs.").

[34] Associated Press, *California Oil Spill Pipeline Was Badly Corroded, Government Report Finds* Wall Street Journal, June 3, 2015, http://www.wsj.com/articles/california-oil-spill-pipeline-was-badly-corroded-government-report-finds-1433384355.

PHMSA should also require the installation of remotely controlled valves on all pipelines. In September 2010, a leak from a natural gas pipeline in California was not halted until 90 minutes after it began. A subsequent investigation by National Transportation Safety Board ("NTSB") determined that the leak's effects could have been mitigated if EFRD technology such as automatic shutoff valves or remotely controlled valves had been installed.[35] Remotely controlled valves allow for quicker responses to emergencies and are more effective response measures if operators are faced with conditions that may delay or prevent personnel from quickly accessing manual valves, such as adverse weather conditions.

III. Valve Spacing

A. PHMSA should adopt additional standards for valve spacing

While PHMSA does provide general requirements for locations of valves,[36] PHMSA should propose valve spacing requirements that provide more specific standards for pipeline operators to use in determining the maximum distance between valves. PHMSA claims that it will consider additional regulations for valve spacing in compliance with the Pipeline Safety Act of 2011. Any new valve location requirements should certainly be applied to newly built or replaced pipelines. In addition, these requirements should be applied to older pipelines within or near to HCAs.

At a minimum, PHMSA should adopt a modified version of the ASME B31.4 industry standard of a 7.5 mile minimum between valves for pipelines carrying liquefied petroleum gas and anhydrous ammonia. In doing so, PHMSA should require that all segments of the pipeline comply with this valve spacing standard..

B. PHMSA should require valves for pipeline crossings less than 100 feet

PHMSA should issue new valve location requirements that protect water crossings less than 100 feet wide[37] and consider extending such protection to crossings as little as 25 feet wide. We recommend that such valve placement requirements should also extend to pipeline crossings in feeder streams and/or creeks that lead to water crossings 25 feet or greater. If PHMSA plans to continue to use its >100-foot threshold, we nevertheless support valve requirements for the pipeline segments which cross feeder streams and/or creeks that lead to 100-foot crossings. By extending valve requirements to feeder streams and/or creeks, PHMSA more effectively protects the crossings to which it has already afforded a commitment of protection.

IV. Stress Corrosion Cracking

PHMSA's proposed new term "significant stress corrosion cracking" is a step forward because it could allow for more accuracy in addressing the problem of corrosion. PHMSA should also establish standards for the prevention, detection, and remediation of "significant stress corrosion

[35] National Transportation Safety Board (NTSB), Pacific Gas and Electric Company Natural Gas Transmission Pipeline Rupture and Fire San Bruno, California September 9, 2010, NTSB/PAR-11/01, August 30, 2011.
[36] 49 C.F.R. § 195.260 (2015).
[37] 49 CFR 195.260(e) (2015).

cracking" and stress corrosion cracking ("SCC") generally. PHMSA should require corrosion prevention measures for gathering lines. PHMSA should not wait to prescribe ILI standards in a separate rulemaking process.

V. Oil Spill Response Measures

Following the Marshall, Michigan, pipeline incident in 2010, the NTSB found that a key contributor to the challenge and inadequacy of initial spill response was the "[i]nadequate regulatory requirements for facility response plans under 49 CFR [§] 194.115, which do not mandate the amount of resources or recovery capacity required for a worst-case discharge."[38] The NTSB concluded:

> "Because the current PHMSA regulation provides no assurance that oil pipeline operators will develop adequate facility response plans to provide for response to worst-case discharges, the NTSB recommends that PHMSA amend 49 CFR Part 194 to harmonize onshore oil pipeline response planning requirements with those of the Coast Guard and the EPA for facilities that handle and transport oil and petroleum products to ensure that pipeline operators have adequate resources available to respond to worst-case discharges."[39]

The necessity for taking these steps was reiterated in December 2015, when the National Academy of Sciences completed its study of spills from pipelines carrying diluted bitumen.[40] There, the NAS reached a conclusion similar to the one reached by the NTSB, recommending that:

> "[T]he Part 194 regulations implemented by PHMSA should be modified so that spill response plans are effective in anticipating and ensuring an adequate response to spills of diluted bitumen. These modifications should
>
> > a. Require the plan to identify all of the transported crude oils using industry standard names, such as Cold Lake Blend, and to include safety data sheets for each of the named crude oils. Both the plan and the associated safety data sheets should include spill-relevant properties and considerations;

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[38] Nat'l Transp. Safety Bd., Enbridge Inc., Hazardous Liquid Pipeline Rupture and Release, Marshall Michigan, July 25, 2010: Accident Report xiii (2012), *available at* http://www.ntsb.gov/investigations/AccidentReports/Reports/PAR1201.pdf; *see also id.* at 73-74 (discussing inadequacies in PHMSA's approved spill response plan for Enbridge, Inc.).

[39] *Id.* at 110.

[40] *See generally* Nat'l Acad. of Sci., Spill of Diluted Bitumen from Pipelines: A Comparative Study of Environmental Fate, Effects, and Response (2015), *available at* http://www.nap.edu/download.php?record_id=21834#.

b. Require that plans adequately describe the areas most sensitive to the effects of a diluted bitumen spill, including the water bodies potentially at risk;

c. Require that plans describe in sufficient detail response activities and resources to mitigate the impacts of spills of diluted bitumen, including capabilities for detection, containment, and recovery of submerged and sunken oil;

d. Require that PHMSA consult with USEPA and/or USCG to obtain their input on whether response plans are adequate for spills of diluted bitumen;

e. Require that PHMSA conduct reviews of both the completeness and the adequacy of spill response plans for pipelines carrying diluted bitumen;

f. Require operators to provide to PHMSA, and to make publicly available on their websites, annual reports that indicate the volumes of diluted bitumen, light, medium, heavy, and any other crude oils carried by individual pipelines and the pipeline sections transporting them; and

g. Require that plans specify procedures by which the pipeline operator will (i) identify the source and industry-standard name of any spilled diluted bitumen to a designated Federal On-Scene Coordinator, or equivalent state official, within 6 hours after detection of a spill and (ii) if requested, provide a 1-L sample drawn from the batch of oil spilled within 24 hours of the spill, together with specific compositional information on the diluent." [41]

Unfortunately, with this NPRM, PHMSA has chosen to not address these pressing issues, which have remained outstanding for at least the past decade. Therefore, we strongly urge PHMSA to broaden the scope of its current rulemaking to include the spill response reforms necessary to ensure that the mistakes, lack of preparedness, and significant impacts witnessed during oil pipeline spills over the past five years are not repeated.

VI. Comments on Proposed Changes

A. Requirements imposed on all hazardous liquid lines.

We approve of PHMSA's decision to extend reporting requirements for annual, safety-related condition, and incident reports to gravity lines and gathering lines.[42] However, in order to "effectively analyze safety performance and pipeline risk of gathering lines," which was PHMSA's stated purpose in expanding the reporting requirements,[43] PHMSA should require

[41] *Id*. at 5-6.
[42] 80 Fed. Reg. 61610, 61611 (Oct. 13, 2015).
[43] 80 Fed. Reg. 61610, 61612 (Oct. 13, 2015).

GIS mapping information. PHMSA should also put forward minimum standards for these lines to ensure that they are actually subject to PHMSA regulation. Approximately 90 percent of onshore gathering line mileage does not have to adhere to minimum federal standards on pipeline safety – less than 4,000 miles of the estimated 30,000 to 40,000 miles of onshore hazardous liquid gathering lines are subject to PHMSA regulation.[44]

B. Inspections of pipelines affected by extreme weather, natural disasters, and similar events.

PHMSA proposes that operators must inspect their pipelines in areas which are affected by disasters such as extreme weather and other natural events (tornados, hurricanes, flooding, etc.). We support this added protection measure, but also suggest the addition of proactive measures. For instance, if a pipeline is located in a state that has been affected numerous times by hurricanes, the pipeline should be inspected generally and regularly, as opposed to just following a disaster. Pipeline water crossings should also be inspected before and after high flow events, and other typical high-flow periods, to ensure pipeline integrity.

C. Pipeline Assessments

We approve of PHMSA's proposal to require non-IM pipeline operators to perform pipeline assessments. However, the 10 year timeframe associated with the inspection mandate should be reduced to the 5-year standard applied to IM-pipelines. PHMSA should also propose a requirement and associated standards for risk assessment on non-IM pipelines.

D. Repair Criteria

We concur with PHMSA's expansion of the conditions that require immediate repair and its application of the new repair rule to non-IM pipelines. Nevertheless, we urge PHMSA to reduce the 80% corrosion-loss threshold to better prevent pipeline spills like the 2015 Santa Barbara, California oil spill, which was caused by corrosion.[45] We further disagree with the decision to replace the 60-day and 180-day repair categories with a 270-day repair category for non-immediate repairs.[46] While the 270-day timeframe may have been created to ease the administrative burden on pipeline operators given PHMSA's expansion of the conditions which require immediate repair, some of the non-immediate repair conditions are still serious enough to warrant quicker action. For instance, the proposed regulation categorizes "an area of general corrosion with a predicted metal loss greater than 50% of nominal wall" and "corrosion of or along a longitudinal seam weld" as 270-day repairs. We urge PHMSA to maintain a 180-day repair timeframe for all repairs that are not classified as immediate.

[44] 80 Fed. Reg. 61610, 61612 (Oct. 13, 2015).
[45] Michael R. Blood & Brian Melley, *Pipeline in Santa Barbara Spill Was Corroded: Report*, Huffington Post, June 3, 2015, http://www.huffingtonpost.com/2015/06/03/pipeline-that-spilled-oil_n_7507030.html.
[46] 80 Fed. Reg. 61610, 61642 (Oct. 13, 2015).

E. Leak Detection System Expansion

While we agree with PHMSA that leak detection systems must be required for all hazardous liquid pipelines which transport liquid in a single phase, we have serious concerns about the effectiveness of the rule as proposed. In the NPRM, PHMSA states that computational pipeline monitoring ("CPM") systems comply with "section 4.2 of API RP 1130."[47] However, a 2011 study on leak detection systems and regulations—commissioned by PHMSA—found that the preferred pipeline operator method for detecting pipeline issues involved CPM, Pressure/Flow monitoring, and supervisory control and data acquisition ("SCADA") systems.[48] Because API 1130 "leaves it up to the operator to utilize the methodology that best suits them since each pipeline system is unique and has its own set of conditions," the study found that such systems "provide at best large rupture detection and all interviewed operators conceded this."[49] Additional issues with CPM systems involved the need for significant "interpretation and analysis" of data, a lack of standardization of systems, and a lack of guidance on how to address the effectiveness of a given leak detection system on a given pipeline due to significant differences in pipeline design.[50]

These findings strongly suggest that the existing rule, which appears at 49 C.F.R. § 195.134, and is expanded to apply to all hazardous liquid pipelines which transport liquid in a single phase in PHMSA's current NPRM, is woefully inadequate. Indeed, a study of leak detection systems conducted in 2012 found that only 5% of leaks between 2002-2012 (with sufficient data to determine how the leak was detected) were detected by remote leak detection systems.[51] Further, the NTSB, in its report on the Marshall, Michigan, oil spill, found that weak PHMSA oversight, the complexity of interpreting CPM data, and inappropriate operator interpretations all contributed to the operator's failure to quickly shut down the pipe after it had ruptured.[52]

These findings, which PHMSA appears to have not taken into account in this NPRM, necessitate a significant reevaluation of PHMSA's existing regulations. While we agree that such regulations must be expanded to all pipelines mentioned above, this is a largely symbolic requirement in the absence of stricter performance standards, technology standards, and standardized operating procedures. We also advise that PHMSA address more rigorous leak detection requirements for sensitive areas, valve spacing and location, and minimum rupture detection standards in the current rule, rather than in a separate rulemaking process. A

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[47] 80 Fed. Reg. 61610, 61639 (Oct. 13, 2015).
[48] David Shaw et al, U.S. Dept. of Transp. Pipeline Hazardous Materials Safety Admin., Final Report: Leak Detection Study – DTPH56-11-D-000001 7-22-23 (2012), *available at* http://www.phmsa.dot.gov/pv_obj_cache/pv_obj_id_4A77C7A89CAA18E285898295888E3DB9C5924400/filename/Leak%20Detection%20Study.pdf.
[49] *Id.* At 7-23.
[50] *Id.*
[51] Lisa Song, *Few Oil Pipeline Spills Detected by Much-Touted Technology*, InsideClimate News, Sept. 19, 2012, http://insideclimatenews.org/news/20120919/few-oil-pipeline-spills-detected-much-touted-technology.
[52] Nat'l Transp. Safety Bd., Enbridge Inc., Hazardous Liquid Pipeline Rupture and Release, Marshall Michigan, July 25, 2010: Accident Report 49-51 (2012), *available at* http://www.ntsb.gov/investigations/AccidentReports/Reports/PAR1201.pdf.

streamlined approach towards leak detection will allow pipeline owners and operators to understand the full extent of their obligations from the start.

F. In-Line-Inspection Systems

We commend PHMSA for its proposal that pipelines located in a HCA or in areas that may affect a HCA must be able to accommodate In-Line-Inspection ("ILI") technology, such as smart pigs. However, the twenty year compliance timeframe should be reduced, as old pipelines built over fifty or sixty years ago should have such improvements made sooner as opposed to later. Twenty years is a significant amount of time, especially when considered in light of the exemptions PHMSA allows for pipelines constructed in a way that prevents ILI accommodation, emergencies, and impracticability reasons.[53] In addition to lowering the compliance timeframe overall, PHMSA should also develop a framework that assigns different compliance periods for pipelines based on factors such as age, prior leaks, corrosion, environmental circumstances that could affect the pipeline (*i.e.*, subsidence, climate, seismicity), and other aspects such as those typically reviewed in integrity management studies.

We suggest a similar approach for pipelines identified as being located in HCAs following the end of the initial compliance period. The current proposal requires ILI accommodation "within five years of the date of identification or before the performance of the baseline assessment, whichever is sooner."[54]

G. Integrity Management Program

The Integrity Management ("IM") program currently applies to pipelines located in High Consequence Areas ("HCAs") and areas that could affect HCAs. The program should be expanded to protect all hazardous liquid pipelines. HCAs are arbitrarily based on population size, meaning not all residential areas located near pipelines are receiving adequate protection. Expanding the IM program would allow for better protection of public health and the environment by requiring line assessment, leak detection systems, and specific repair schedules. However, HCAs should remain the highest priority of the program.

Concluding Remarks

Although PHMSA claims that it will consider many issues in a separate rulemaking process, it would be more effective to inform pipeline operators of all major regulatory changes at once to allow for a more streamlined approach to the required modifications. Furthermore, if such safety measures are addressed in a separate process, these important rules may take years to be formed and implemented, while they are needed right now.

Thank you for taking these comments into consideration. If you have any questions, please contact Neil Kagan at 734-763-9087 or kagan@nwf.org.

[53] 80 Fed. Reg. 61610, 61639 (Oct. 13, 2015).
[54] 80 Fed. Reg. 61610, 61635 (Oct. 13, 2015).

Sincerely,

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