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Docket Management System
U.S. Department of Transportation
1200 New Jersey Avenue, S.E., Room W12-140
Washington, D.C. 20590-0001

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Re: PHMSA Proposed Rule – Pipeline Safety: Class Location Requirements, Docket No. PHMSA-2013-0161

Dear Sir or Madam:

Thank you for the opportunity to comment on whether to apply the integrity management program (IMP) requirements, or elements of IMP, to areas beyond current high consequence areas (HCAs), and whether such expansion would mitigate the need for class location requirements for gas transmission pipelines. We will address these issues, after briefly explaining the perspective we bring to this comment process.

We support applying integrity management beyond HCAs, while maintaining the prescriptive requirements that are integral to the class location requirements for gas transmission pipelines, and making all of the information regarding HCAs and pipes subject to integrity management available to the public, preferably through an improved National Pipeline Mapping System (NPMS).

The Pipeline Safety Trust believes that communities should feel safe when pipelines run through them, and trust that their government is proactively working to prevent pipeline hazards. We believe that local communities who have the most to lose if a pipeline fails should be included in discussions of how best to prevent pipeline failures. And we believe that only when trusted partnerships between pipeline companies, government, communities, and safety advocates are formed, will pipelines truly be safer.

We also believe that trust in pipeline safety increases in proportion to the amount of verifiable scientific information that is readily available for all concerned to review. For the most part outside review increases the confidence in pipeline safety as those with concerns learn that in fact pipelines truly are a safe way to transport fuels. In those instances when safety has lapsed, such review will help to more quickly correct the situation and create a push for even greater levels of safety. Consequently, one of the Trust's highest priorities is to make available as much relevant and accurate information as possible for independent review.

Integrity Management and High Consequence Areas

In the decade or so that integrity management (IM) has been in place, thousands of pipeline flaws have been found and repaired. IM has created a process for focused risk analysis and measurable improvement. There is no doubt integrity management needs to be expanded. To be blunt, it is not "safe" to wait until a pipeline explodes to learn about its integrity. Thousands of people still live within impact areas of pipelines that are not required to use integrity management – in fact more than 90% of gas transmission pipelines are not subject to integrity management.

Consider these examples where people died when pipelines outside of High Consequence Areas and therefore not covered by the current integrity management requirements ruptured and exploded:

- An extended family of 12 that was killed when a pipeline that falls outside of the current integrity management requirements failed while they were camping at their favorite fishing hole in New Mexico in 2000. This same area is still not protected by the integrity management program.
- Corbin Fawcett who was killed while driving down an interstate highway north of New Orleans on a beautiful day in December of 2007 when a natural gas pipeline that falls outside of the current integrity management requirements exploded under his car.
- Maddie and Naquandra Mitchel, a grandmother and her granddaughter, who were killed in Mississippi in 2007 trying to escape from their home when a pipeline that falls outside of the current integrity management requirements ruptured and exploded.

The examples are too numerous. People who live, work or play near pipelines in more rural areas interpret this to mean that Congress and PHMSA have decided their lives are not worth protecting with these important integrity management rules.

The current concept of requiring integrity management programs only for pipelines in High Consequence Areas also is not sufficiently protective of America's economy. Regardless of where a pipeline fails, there will be a significant economic impact on the downstream markets. For instance, when the El Paso natural gas pipeline failed in 2000 in a non-High Consequence Area, the staff of the Federal Energy Regulatory Commission estimated that the restriction in gas supply cost the people of California hundreds of millions of dollars. When it comes to consumer's pocketbooks, and the welfare of the economy, every mile of pipeline is of high consequence, so every mile should be inspected so that the American people have reliable and safe pipeline infrastructure.

Limiting integrity management programs to High Consequence Areas made sense when these programs were just starting, but now it is clear that the industry has the experience and infrastructure necessary to move forward with an expansion of integrity management so that people who live, work and play near all the pipelines in this country are safe.

It is also important to point out that natural gas pipeline operators are not required to report to PHMSA the problems they find outside of High Consequence Areas. This reporting needs to be mandated so that PHMSA can have a better understanding of the safety of this nation's pipelines.

Tragedies have also continued to occur within HCAs since integrity management was instituted, for reasons such as operator reliance on unverified pipe information, and a lack of accountability for thorough IM through comprehensive MAOP determination and percent SMYS calculations. Many elements of the integrity management rule are still vague and subjective: time periods for risk analysis and implementation of mitigative measures are unclear; traffic-choked highways and parking lots are not necessarily considered 'occupied' and therefore subject to HCA requirements. PST supports performance-based rules such as IM only to the extent that the rules are clear, operators' processes for coming to their risk-based conclusions can be verified and transparent (to the public), and there is accountability (preferably *before* a failure occurs) when those processes are flawed.

High Consequence Areas and Class Locations

The Pipeline Safety Trust has urged PHMSA in the past to subject all miles of gas transmission pipelines to integrity management rules, and to strengthen the rules themselves.[1] Similar ends could also be accomplished through new criteria for HCAs, and establishing new IM regulations for areas outside those HCAs. Additional safety measures within areas that are truly high consequence should be developed, such as more protective valve spacing, automated valves, and thicker pipe (determined through MAOP and percent SMYS prescriptive limitations).

The current method for HCA determination lacks transparency and is flawed. The public has no way of knowing whether an operator has identified a particular area as an HCA, whether they've done it correctly, or what method they've used to do it. There should be a single set of criteria for defining HCAs; HCAs should be mapped; and the maps should be public, as required by Congress in the 2011 reauthorization bill. There is no reason that the identification of which segments of pipelines are considered HCAs, and which are not, should be kept from the public.

High population areas, like class 3 and 4 locations, should be included in HCAs. Currently, an operator can avoid designating certain Class 3 or 4 locations as HCAs if fewer than 20 buildings intended for human occupancy are within the potential impact radius (PIR). For example, a Class 3 area surrounding a pipeline like the one that exploded in San Bruno – a 30 inch, relatively low pressure transmission line with a PIR of just over 400 feet – could avoid being identified as an HCA if the requisite 46 buildings or dwelling units were located outside the PIR but within 660 feet of the pipeline, and the operator chose the method that does not rely on class location. One look at an aerial photo of the San Bruno neighborhood taken after the explosion and fire is all it takes to understand that the effects of a ruptured gas pipeline left on for 90 minutes extend well beyond the nominal PIR of 400 feet of that type of pipeline.

For similar reasons, if class locations continue to be used for HCA designation, then the width used for determining class locations for pipelines with PIRs over 660 feet (over 24 inches and above 1000 psi) should be expanded at least to include the entire PIR. The regulations presumably use the

[1] See comments submitted by the Pipeline Safety Trust regarding Docket No. PHMSA-201100023 (January 19, 2012) and during testimony before the Senate Commerce, Science & Transportation Committee, Subcommittee on Surface Transportation and Merchant Marine Infrastructure, Safety, and Security (June 24, 2010), among others.

concept of a PIR in class locations and HCA designations to account for the heightened risk and consequences within that area in the event of a rupture. Presumably, the use of the PIR is to afford greater safety benefits to those areas by requiring more of operators with large or vulnerable populations within those areas. If that is the case, then the safety benefits afforded areas by being designated a Class 3 or 4 area ought to fall on the entire population within the PIR and not be artificially capped at the area within 660 feet.

NTSB recommended to the DOT Secretary after the San Bruno tragedy that an audit be performed of IM; to date this audit has not been produced. Until we fully understand how well IM programs are working, it makes no sense to increase our dependence on that process to ensure public safety near pipelines. And it certainly makes no sense to eliminate prescriptive requirements such as those found in association with class locations; it is simply premature to consider substituting IM for class location requirements.

Valves and Response Times

Maximum operator response times should clearly be measured from the moment of the operator's pipeline failure until the pipeline valves are closed. In high consequence areas, a one-hour response time before valve closure is much too long.

The San Bruno tragedy underscores the need to reduce operator response times, accounting for the worst possible traffic conditions, weather conditions, and seismic or other disruptions of bridges, power supplies and traffic controls. The San Bruno and Edison incidents make clear that while the initial explosions do horrific damage, it is only by sheer luck that the structures destroyed in the ensuing fires were evacuated before they were burned, avoiding many more fatalities. Had either incident, or any other urban gas pipeline failure, been in a location preventing evacuation of a structure occupied by individuals who cannot be easily moved, the delays in operator response time, valve closures and pipeline blowdown allowing the fires to spread would have resulted in many more fatalities.

As more and more pipelines are built in urban areas, and as more urban areas grow up around existing pipelines, operators and regulators must respond accordingly. Valves need to be closer together and they need to be closed much more quickly. One hour following failure and ignition is simply inadequate. Basing time on "notification" or "identification", relying on the actions of others for a timer to even begin is completely unacceptable. In San Bruno, significant damage to the neighborhood occurred after the firefighters arrived as those emergency responders found that the nearest water supply left intact by the explosion was 3000 feet from the site, and they were unable to get control of the structure fires being fed by the blowtorch of the still-flowing pipeline.

Operators should be integrating all of their geospatial and operational knowledge with that of the appropriate local emergency responders and planners. Where are the water lines? In how many places could a failure on the gas line cut off the firefighters' water supply? Where is the next closest water supply? How fast can the operator's staff get to the relevant valves and close them if there's a snow storm, a hurricane, a power outage, a bridge out, or if the failure is too close to a valve to allow personnel near? How does that affect the response and blowdown calculations? Where are there

large vulnerable populations? Acceptable valve spacing and response time should be reduced in such instances. PHMSA and state regulators should establish maximum response times, allowing operators to determine how best to meet them. Regulators should then verify the reality of operators' assumptions in regular audits, making them accountable under the regulations *before* an actual incident response reveals such flaws. In no scenario should an operator be able to use notification or identification by the public or by an emergency dispatcher as the trigger for the beginning of their responsibility for emergency response and valve closure.

Modified rules governing valve spacing should be based on a fixed maximum response time between a failure and valve closure. These rules should require consideration of local conditions, using allowable (or actual) types of valves, identifying the blowdown times for various sizes and pressures of pipes present, and then specifying the spacing and frequency needed to respond promptly. We could then have an open public dialogue about the circumstances in which it might be acceptable for response times to be longer than that, and the reasons that might be so. The outcome should be an enforceable maximum response time, blowdown time, and valve specifications that operators must verify.

PHMSA Questions

PST has not individually addressed most of the questions PHMSA asks in this docket, though we do address the topics in our above narrative. In most cases, answers are more complex than a simple yes or no might indicate. However, in respect to PHMSA's desire to survey opinions on these issues, we have provided some direct responses here (note many numbers are NOT included). Answers are not provided where the questions presume a single design factor would replace class locations (the majority of the questions) as we do not believe this is a wise course of action, and do not support that approach.

1. Should PHMSA increase the existing class location design factors in densely populated areas where building are over four stories? YES
2. Should class locations be eliminated and a single design factor used if IM requirements are expanded beyond HCAs? NO
4. Should operators be allowed to increase the MAOP of a pipeline from the present MAOP if a single design factor is created for all levels of population density? NO
8. Should a root cause analysis be required to determine the cause of all in-service and hydrostatic test failures or leaks? YES

Conclusion

We support expanding integrity management beyond HCAs, and requiring reporting of all pipeline facts discovered through IM inspections. We also support maintaining the prescriptive requirements that are integral to the class location requirements for gas transmission pipelines, and making all of the information regarding HCAs and pipes subject to integrity management available to the public, preferably through NPMS.

Before the federal regulators adopt any more performance-based regulations for the natural gas

industry, PHMSA and the Comptroller General should look long and hard at the behavior of the industry under existing performance based regulations. Continuing the current flexibility and lack of accountability is unacceptable. The integrity management audit recommended by NTSB needs to be completed, publically available, and openly discussed prior to doing away with class locations and other prescriptive regulations work in tandem with IM.

In addition, performance-based regulations should not be intended as a substitute for design and performance specifications; prescriptive rules can and should still be used for critical tasks and where standardization is necessary, and where it is nearly impossible to develop performance-based regulations that cover all eventualities.

Where performance to-date does not bear out acceptable results, prescriptive rules should provide a baseline that offers clarity and certainty. And whether performance-based or prescriptive, the public should have a transparent way to view the process and assumptions used by both the operator and the regulator.

Thank you again for this opportunity to provide input.

Sincerely,

Carl Weimer
Executive Director