A I WILMER J BAKER, SUBMIT THIS STATEMENT AS POSSIBLE SETTLEMENT TO THIS CASE

WILMER BAKER VS
SUNOCO PIPELINE L.P.
(C-2018-3004294)

1. AN ALARM SYSTEM
2. PUT ODORANT (MERCAPTAN)
3. USE AMERICAN STEEL PIPES!
4. BETTER COMMUNICATIONS
5. BETTER TRAINING of RESPONSE PERSONAL
6. STOP THE FRAUD.

B. SERVICE, RELIABILITY, SAFELY

C. AT THE DISCRETION OF THE HONORABLE ELIZABETH H. BARNER AND SECRETARY, ROSEMARY CHIAVETTI OF THE P.U.C.

D. HOWEVER THE COURT AND ALL THOSE INVOLVED WANT TO PROCEED!

E AT THE CONVENIENCE of THE P.U.C. AND THE HONORABLE ELIZABETH H. BARNER. ADMINISTRATIVE LAW JUDGE.

G A. ROLFE BUNE (717-576-5327)
43 WILDWOOD RD.
NEWVILLE PA 17241

B. KIM VAN FLEET
1705 McCLURES GAP RD
CARLISLE PA 17013 (717-440-6047)

6 ERIC ROBINSON
411 WEST NORTH #3
CARLISLE PA. 17013 (717-206-7964)

JON BAKER
430 RUN RD
CARLISLE PA 17013 (717 258-5261)

H. AMERICA MADED STEEL (JOBS)
ALARM SYSTEM (PROTECTION).
SAFETY TRAINING (PROTECTION)
TRANSPARENCY (OPEN)

I. A. THAT I HAD FOREIGN STEEL, PICTURES (SHOULD BE AMERICAN)
ALARM SYSTEM FOR PROTECTION OF FABRIC.

1. LOWER FRANKFORDS LETTER ASKING SUNOCO TO TOWNSHIP MEETING JULY 10, 2018, (BRING SAFETY MANUL)
2. TWO SAFETY MANUL'S THAT ARE HARD TO COME BY,
3. JULY 10, 2018, TOWNSHIP MEETING (NO SUNOCO
4. SENTINEL'S ARTICLE JULY 14, 2018, PAGE 4, (SUPERVISORS, NO DIRECT CONTACT)
5. (COUNTY COMMISSIONERS, NO CONTACT, PAGE 3, ASKING P.U.C. TO HOLD SUNOCO TO STATE AND FEDERAL REGULATIONS
6. UPPER FRANKFORD'S SUPERVISOR'S CERTIFICATE FROM SUNOCO, SUPERVISORS SAID NOT TRAINED, (NEXT TOWNSHIP MEETING SUPERVISORS THREATEN me!)
7. STATEMENT FROM MIKE CHESTNUT, FIRE POLICE, HIS JOB, CARLISLE PETROLEUM (NOT TRAINED FOR EMERGENCYS)

William Jay Baker
12/19/2018

LOWER FRANKFORD TOWNSHIP
July 10, 2018
Monthly Meeting

Rollcall

Jim Burkholder – Present (Chairman Board of Supervisors)
James Heishman – Present (Vice Chairman Board of Supervisors)
Dave Bachman – Present (Supervisor - Roadmaster)
Karen Heishman – Present (Secretary/Treasurer/Manager)
Pam Burkholder – Not Present (Tax Collector)
Ed Franco – Not Present (Chairman Planning Commission)
Keith Senecal – Present (Vice Chairman Board of Supervisors)
Hubert Gilroy – Not Present (Solicitor)
Greg Alleman – Not Present (Zoning Officer)
Thelma Fegley – Not Present (Chairman Board of Auditors)
Donna Yarlett – Not Present (Secretary Board of Auditors)

Previous Minutes: Jim made a motion to approve the June 5th meeting minutes, second by Dave and passed with an all-in-favor vote.

Treasurers Report: The attached treasurer's report for june was approved with a motion by Jim, second by James and passed with an all-in-favor vote.

Motion to Pay Current Bills: A list of outstanding bills was read into the record. Jim made a motion to pay the current bills, second by Dave and passed with an all-in-favor vote.

Planning Commission Report: Keith Senecal reviewed the attached report.

Code Enforcement Report: No activity.

Roadmaster Report: The road crew continues to cut down dead ash trees. Continue to mow along the roadways, at the Township Park, and on the breast work of the dam as necessary. Purchased a parabolic mirror to be placed at the intersection of Run Road and Wildwood Road.

Building & Grounds Report: Took two loads of recycling to Diller's Transfer Station.

Equipment Report: The John Deere 525 needs a new rim, several bolts have sheared off.

C. O. G. Report: South Middleton Township appears to be the front runner for the location of a mini casino.

Governor Wolf signed the budget with a 560 million dollar increase over last year.

Cumberland Valley School District is terminating the "Declaration of Taking" eminent domain court filing for the McCormick Farm property in Silver Spring Township, since HB 2468 was signed into law. Act 45 now requires that any entity exercising eminent domain powers over a property subject to a conservation easement — public or private — receive prior approval from the "orphan's court of the county in which the land is located." The court shall allow the condemnation

to proceed, according to the language of the bill, "only if the court determines there is no reasonable and prudent alternative to the utilization of the land subject to a conservation easement."

Steve Bloom thanked everyone for working with him throughout his term in office. He said he will encourage his successor to utilize the WCCOG.

Vince DiFilippo mentioned that the Cumberland County electronics recycling has collected 453,480 lbs., with the average weight per customer drop off being 94 lbs.

The Household Hazardous Waste collection event will be held on Saturday, August 18th from 9AM to 3PM at 310 Allen Road.

Correspondence:

Persons to be Heard: Several local residents as well as others (see attached attendance sheet) attending the meeting in hopes of discussing pipeline safety with representatives from the Sunoco Pipeline. Unfortunately just hours before the meeting Sunoco called and notified Karen that they were unable to attend.

Unfinished Business: The Jonathan Martin land development plan was tabled until Brehm-Lebo Engineering has completed their review of the revised plan.

New Business: Jeff Weyant is installing a holding tank at his Winery. Jim made a motion to sign Resolution #PR-18-04 and insert it in the DEP Sewage Planning Module, second by James and passed with an all-in-favor vote.

Jim made a motion to adopt Fee Schedule FR-18-05 addressing larger land development plans, second by James and passed with an all-in-favor vote.

Motion to Adjourn: Jim made a motion to adjourn the meeting, second by James and passed with an all-in-favor vote.

Cumberland County Commissioner

Jim Hertzler
Commissioner
One Courthouse Square
Carlisle, PA 17013

Office (717) 240-6150
Mobile (717) 991-7985
jhertzler@ccpa.net
www.ccpa.net

SUNOCO PIPELINE
An ENERGY TRANSFER Company

August 24, 2018

Cumberland County Board of Commissioners
One Courthouse Square
Room 200
Carlisle, PA 17013

Dear Cumberland County Board of Commissioners,

I received your August 13, 2018, letter to Matt Ramsey, which was forwarded to me. I look forward to the opportunity to continue our communications with the Lower Frankford Township Board of Supervisors and your first responder organizations about the Mariner East project as we have been doing since 2014.

An integral part of this communications is the "Mariner Emergency Response Outreach (MERO)" training program that was launched in 2014 to ensure that first responders along the Mariner East corridor were trained on pipeline safety and the characteristics specific to transporting natural gas liquids. Since that time, Sunoco Pipeline has conducted more than 80 MERO Training sessions with over 2,000 first responders across the pipeline footprint including Cumberland County. In Cumberland County specifically, more than 150 responders have participated in six training sessions since 2014. This includes participation from 12 Cumberland County government representatives and representatives from Upper and Lower Frankford townships.

To that end, we offered on multiple occasions to schedule additional meetings and trainings for representatives from Lower Frankford Township to further ensure your local emergency preparedness organizations are equipped with the knowledge and training to safeguard the community. That offer still stands today.

Additionally, we invite you and members from the Cumberland County first responder community to attend the upcoming *Paradigm Core-Ex Emergency Response Training* to be held at the Harrisburg Best Western at 800 E. Park Drive at 5:30pm on Wednesday September 12, 2018.

At Sunoco Pipeline, safety is our top priority at all times and that begins with our rigorous integrity management program and first responder outreach. Attached you will find additional information on pipeline safety and operations and how the Mariner East project has gone above and beyond to ensure safe operations in your community.

Sincerely,

Matthew Gordon
Senior Director, Pipeline Operations
Sunoco Pipeline

LOWER FRANKFORD TOWNSHIP
1205 Easy Road
Carlisle, PA 17015
(717) 243-0855
FAX (717) 258-4715
e-mail: lowerfrankford@comcast.net

June 11, 2018

Wilmer Baker
430 Run Road
Carlisle, PA 17015

RE: Pipeline Questions

Mr. Baker:

Thank you for attending the Board of Supervisors meeting on Tuesday, June 5, 2018. I reached out to Sunoco Logistics. The plan is for them to send at least one representative to the next Board of Supervisors meeting that will be held on Tuesday, July 10, 2018 at 7PM. I asked them to bring copies of the "Important Safety Message" flyers.

Respectfully,

Karen M. Heishman, secretary
Lower Frankford Township

CC: Wilmer Baker (717-258-5291
Dave McGinnis
Thomas Nelson

(EXHIBIT A)

https://cumberlink.com/news/local/sunoco-a-no-show-in-lower-frankford-as-contamination-complaints/article_9d848001-4d61-5edb-b257-60e0709a7252.html

TOP STORY

Lower Frankford Township

Sunoco a no-show in Lower Frankford as contamination complaints, safety concerns pile up

Zack Hoopes The Sentinel Jul 14, 2018

Vern Leach inspects his property where Sunoco Pipeline LP placed a pipeline in Lower Frankford Township.

Sunoco Pipeline LP officials did not show up as promised to a public meeting Tuesday night with the Lower Frankford Township supervisors, leaving roughly 20 residents of the rural municipality concerned that their safety questions about the Mariner East pipelines would not be addressed.

"They called us about an hour ago and said they won't be coming, so we won't be discussing the pipeline tonight," Supervisor James Burkholder said during the meeting.

The township will attempt to schedule Sunoco officials to attend another meeting, Burkholder said, ideally when the township's attorney is available to discuss the municipality's control over the pipeline process, which is limited.

At Tuesday's meeting, the township also approved an invoice from Brehm-Lebo Engineering for inspections along the pipeline construction routes, a process that will help determine how much the township gets reimbursed for damage to its roads.

"Beyond that, the process is pretty much all in the hands of the DEP [Pennsylvania Department Environmental Protection]," Burkholder said.

The Mariner East 2 pipeline will carry liquefied gas, hydrofracked from shale formations in western Pennsylvania, to the Marcus Hook Industrial Complex near Philadelphia for processing.

Throughout most of Cumberland County, Mariner East 2 is being built alongside Mariner East 1, a line that was installed in 1931 to carry oil, but was recently re-purposed to transport higher-pressure liquefied gases.

Limited information

According to Lower Frankford residents, communications from Sunoco have provided limited safety information about either pipeline, with communications focusing on marketing the economic benefits of the pipeline.

This appears to be a significant departure from previous communications, resident Wilmer Baker said.

Baker provided a safety pamphlet from Sunoco he said he received years earlier when he moved into his property. The pamphlet gives dire warnings about what to do if you suspect a pipeline leak near your home, including not starting your car, or even using a door knocker, for fear of sparks.

"I have a wood stove that runs 24 hours a day," Baker said. "What am I supposed to do if this thing gives out? They're cranking up the pressure on an iron line from the 1930s, but all we get now is the propaganda, no new safety information."

The state's Public Utility Commission and administrative law judge appear to agree with Baker.

In March, the administrative court shut down Mariner East 1 flow after Mariner East 2 construction in Chester County caused massive sinkholes that exposed the original Mariner East 1 line.

The court allowed the pipeline to resume operation on May 3, but shut it down again three weeks later over safety concerns similar to those voiced by Lower Frankford residents on Tuesday night. As of June 14, Sunoco is again allowed to operate the pipeline

In the May 21 shutdown order, Administrative Judge Elizabeth Barnes found that "Sunoco has made deliberate managerial decisions to proceed in what appears to be a rushed manner in an apparent prioritization of profit over the best engineering practices available in our time that might best ensure public safety."

In the past year, Mariner East 1 has experienced three leaks, all of which Sunoco failed to identify and report. In one instance it took Sunoco officials 90 minutes to close off Mariner I after being informed of a leak in Berks County that resulted in a 1,000-gallon spill of liquefied gas, Barnes said.

In reference to Mariner East 1 being strong enough for conversion from low-pressure oil to high-pressure liquefied gas, Barnes found that "there is insufficient evidence to show whether the pipe has been properly tested for repurposing."

1931 line

Sunoco has submitted no reports that would indicate the line, built in 1931, would be able to accommodate high-pressure loads of shale gas liquids, known as highly volatile liquids, according to the shutdown order.

"I question whether the [Mariner I] pipe meets today's engineering standards to hold the HVLs of ethane, butane and methane gases, especially so close to dwellings," Barnes wrote.

She also found that "there is a substantial issue regarding whether Sunoco has adequately created and trained its personnel and first responders of townships along its route regarding proper emergency response and evacuation procedures."

That would seem to be the case in Lower Frankford. Burkholder said the township supervisors have had "no direct report" from Sunoco, beyond pamphlets the company gave them to hand out to residents.

The company's June newsletter contains no concrete emergency response information, but it does devote considerable space to complaining about the Mariner East 1 shutdown decision, calling Barnes' ruling "a significant departure from the law and the due

process procedures that the PUC follows."

The newsletter even contains a graphic of sizzling steaks with the tagline "restarting Mariner East 1 will make cookouts more affordable" due to lower energy transport costs.

"They send us all this stuff about energy prices, but they still can't tell the township what we're supposed to do when this thing blows up," Baker said, referencing the explosion of the Columbia Gas Transmission line in West Virginia last month.

"Remember, that line was brand new, not 80 years old," Baker said.

In response to the shutdowns, Sunoco has submitted exhibits to the PUC detailing safety measures. These include safety literature similar to that which Baker had received in the past, and details of training sessions for local emergency responders.

If Lower Frankford officials or residents feel Sunoco isn't actually carrying through on those plans, they can take action through the PUC, PUC spokesman Nils Hagen-Frederiksen said.

"There are state and federal requirements for [Sunoco] to have outreach campaigns and interaction with emergency responders," Hagen-Frederiksen said. "If people don't feel they're getting the necessary information or interaction from Sunoco, we encourage them to raise that issue with the PUC."

Remediation

Other Lower Frankford residents voiced concern with ongoing environmental remediation and access issues.

Vern Leach said that Sunoco had cut his fences to run Mariner East 2 under his farm, and now wants to put in gates so that workers can access the line in the future, even though the company doesn't have right-of-way.

Drilling fluid and mud has leaked to the surface of the wetlands surrounding Locust Creek, which abuts Leach's property, leaving a hardened layer of silt under the marshes, he said.

"They cut our fences, so we can't use it for pasture, and they destroyed the wetlands," Leach said. "It's as hard as a rock just below the surface."

Two incidents involving Locust Creek and its associated wetlands, referred to by the state as Wetlands J35, are cited in the April 27 "consent assessment" between Sunoco and the DEP, which fines Sunoco $355,622 for dozens of instances of "inadvertent return" during the construction of Mariner East 2.

"Inadvertent return" is an industry term for incidents in which underground drilling fluid and mud escape the drilling path and cause contamination, either by entering underground aquifers or soil voids, or by flowing up to the surface.

Locust Creek and Wetland J35 experienced a 500-gallon inadvertent return on Sept. 27, 2017, and another 100-gallon incident on Feb. 27, 2018, according to the consent assessment.

DEP records show 31 incidents of inadvertent return in Cumberland County since April 2017, with problems still ongoing.

The most recent violation was issued this week — July 9 — in which the DEP and county conservation district documented a one-gallon inadvertent return in Wetland I32 along LeTort Spring Run in Middlesex Township.

Many of the inadvertent returns are of small volumes. But one stands out, an incident between May 6, 2017, and May 19, 2017, in which 170,000 gallons of inadvertent return flowed into Wetlands I30 and I32.

One Cumberland County incident was also cited in the DEP's $12.6 million penalty assessment against Sunoco in February.

That incident did not involve inadvertent returns. On Dec. 18, 2017, county officials discovered that Sunoco officials were conducting directional drilling near North Locust Point Road in Silver Spring Township even though Sunoco officials were told to install pipe using open trench cuts and had not obtained permits for horizontal drilling at that site.

But with the sheer volume of violations and fines piling up, local residents have expressed doubt that the state has the tools to force Sunoco to stop acting recklessly, let alone fix the damage.

"They make a big deal out of a $12 million fine, but that's a drop in the bucket for a company like Sunoco," Leach said. "They have no incentive to stop doing what they're doing."

Sunoco did not return requests for comment.

Email Zack at zhoopes@cumberlink.com.

MORE INFORMATION

COMMISSIONERS OF CUMBERLAND COUNTY

September 13, 2018

Attn: Mr. Matthew Gordon,
Senior Director, Pipeline Operations
Sunoco Pipeline (Energy Transfer Partner)
525 Fritztown Road
Reading, PA 19608

Dear Mr. Gordon:

Thank you for your August 24 letter of response to our communication to Sunoco LP Chairman Matt Ramsey earlier last month.

While we appreciate the efforts Sunoco Pipeline has undertaken to provide training to first responders in the event of an accident or emergency associated with your company's pipeline operations, we find it inexplicable that you did not respond to the primary request of our letter.

We will assume that since you did not respond to our request to attend a county-hosted meeting to answer individual questions and concerns from our constituents about pipeline safety that your company isn't interested in addressing those individual citizen questions and concerns.

At a time when your company is spending money on television and radio advertising to convince the public, as your letter ates, that "safety is (your) top priority at all times," we find it difficult to understand why company representatives would not vant to participate in any such meetings that can be arranged with the public at large to detail all of the safety precautions that the company has taken to prevent leaks, explosions and other emergencies from occurring in the first place.

If you are sincerely interested in convincing the public that your pipeline operations are as safe as safe can be, then we would respectfully request, as the good corporate neighbor that we would expect you to be, that you reconsider and agree to attend a public meeting hosted by the county for the purpose of granting the company the opportunity to detail safety measures and to permit citizens to ask questions and voice any concerns.

Thank you again for your attention to this request.

CUMBERLAND COUNTY BOARD OF COMMISSIONERS

Vincent T. DiFilippo
Chairman

Jim Hertzler
Vice-Chairman

Gary Eichelberger
Secretary

cc: Honorable Gladys Brown, Chairman
Pennsylvania Public Utility Commission
State Senators:
Honorable Richard L. Alloway
Honorable John H. Eichelberger
Honorable Mike Regan
Honorable Jim Burkholder, Chairman
Lower Frankford Township

State Representatives:
Honorable Stephen Bloom
Honorable Sheryl M. Delozier
Honorable Dawn W. Keefer
Honorable Mark K. Keller
Honorable Will Tallman
Honorable Greg Rothman

COMMISSIONERS OF CUMBERLAND COUNTY

Vincent T. DiFilippo
Chairman

Jim Hertzler
Vice Chairman

Gary Eichelberger
Secretary

October 8, 2018

Honorable Gladys M. Brown, Chairman
Pennsylvania Public Utility Commission
Commonwealth Keystone Bldg.
400 N. Street, 3rd Fl., Room N-304
Harrisburg, PA 17120

Dear Chairman Brown:

As you are aware, a number of our county's citizens have raised safety questions and concerns with respect to Sunoco Pipeline's Mariner East project that crosses through nearly a dozen municipalities in Cumberland County.

In an effort to have the company address those questions and concerns, the Board of Supervisors of one of our townships, Lower Frankford Township, had scheduled a July 10 meeting with Sunoco Pipeline representatives only to have the company cancel at the last minute. Subsequently, we invited the company, in letters dated August 24 and September 13, to attend a county-hosted meeting so that any of our county's citizens who live in close proximity to the pipeline could have their questions and concerns addressed. Unfortunately, we have yet to receive a direct, formal response.

As such, we are respectfully requesting that the Public Utility Commission take whatever policy and/or regulatory action necessary to enhance the minimum federal "public awareness" safety rules, promulgated by the federal Pipeline and Hazardous Materials Safety Administration, to require Sunoco Pipeline, as a regulated Pennsylvania public utility, to conduct regional and periodic public outreach meetings to address any citizen questions and concerns.

We find it inexplicable that a large enterprise like Sunoco Pipeline that touts "safety" as a "top priority at all times," would refuse to send representatives to attend a coordinated county-hosted meeting to detail safety measures taken and advise citizens of any precautions they should take and to address any other questions and concerns.

In addition to other elements of the company's "public awareness" efforts, we believe a requirement for periodic regional outreach meetings directly with the public is a reasonable request. We hope you will agree. Thank you for your attention to this request.

CUMBERLAND COUNTY BOARD OF COMMISSIONERS

Vincent T. DiFilippo
Chairman

Jim Hertzler
Vice-Chairman

Gary Eichelberger
Secretary

cc: All PUC Commissioners
Cumberland County State Legislative Delegation

One Courthouse Square • Room 200 • Carlisle, PA 17013 • 717.240.6150 • Fax: 717.240.6448
E-mail: commissioners@ccpa.net • Web: www.ccpa.net

CERTIFICATE OF COMPLETION

2 In-Service Credit Hours

Awarded to:

STEVE ARMOLD

for attendance of the following program:

Pipeline Emergency Response & Awareness for Excavator Operations

Attended: September 24, 2014 Chambersburg, PA

Paradigm

Steve Roberts

Steve Roberts
Director of Corporate Training

Kinder Morgan Louisiana Pipeline

Sometime in late 2008 the Louisiana Pipeline failed a hydrotest.[4] This failure triggered PHMSA's investigation. Little is known about this hydrotest failure because PHMSA did not release documentation disclosing the location, time, or circumstances of this failure.

In its initial investigation of what caused this failure, Kinder Morgan determined that some of the pipe joints in the Louisiana Pipeline had expanded beyond specification.[5] Expansion was of concern because it indicated that the steel pipe might not have been strong enough to withstand the very high pressures under which this pipeline would operate. Accordingly, Kinder Morgan conducted a high resolution caliper survey of the entire pipeline to identify all expanded substandard pipe joints.[6] PHMSA did not supply the data collected by these high resolution caliper surveys in response to the FOIA Request, nor did it identify the pipe and steel mills that supplied the expanded pipe joints.

Once Kinder Morgan identified specific pipe joints that had expanded, it tested 30 of these joints for chemical composition and strength.[7] It also tested 30 random pipe joints that had not been subject to pressures sufficient to expand them.[8] It found that 43% of the samples from expanded pipe failed to meet strength specifications contained in the API 5L X70 Standard. The data table containing these results describes the pipe as "NPS 42 x 0.864" WT API Grade X70 Welspun LMLP Linepipe."[9] It also found that 13% of the samples from non-expanded Welspun pipe did not meet specification.[10]

Kinder Morgan concluded that "[t]he variability in the pipe yield properties is a result of deviation from plate controlled rolling parameters,"[11] meaning that the steel had been formed improperly. PHMSA provided us with no data or information supporting this conclusion.

To ensure pipeline integrity, Kinder Morgan ultimately removed approximately 7,100 feet (19.7%) of installed pipe due to "diameter variability."[12] Kinder Morgan also requested that Welspun investigate this matter and recertify substandard steel pipe joints based on its records.[13] Welspun recertified an undisclosed number of pipe joints as API 5L X56, X60, and X65 pipe, meaning that it downgraded different segments of pipe from the API 5L X70 Standard to lower standards.[14]

Even though PHMSA did not provide data beyond that contained in generalized Kinder Morgan presentations, it is clear that a substantial number of pipe joints expanded to a degree that caused Kinder Morgan and/or PHMSA to remove and replace these joints. Also, Welspun is the only one of Kinder Morgan's pipe suppliers implicated by the released documents.

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[4] Email. S. Nanney, PHMSA to A. Mayberry, PHMSA, transmitting undated Kinder Morgan presentation on KMLP use of defective steel.

[5] Id. at 5.

[6] Kinder Morgan, *KMLP Presentation*, December 15, 2009, at 8. A high resolution caliper survey is performed by sending a device through the pipeline that measures the diameter of the steel pipe. Such test can determine with precision if and where the pipeline has stretched under the pressure of a hydrotest.

[7] Id. at 5.

[8] Id. at 6.

[9] Id. at 11.

[10] Id. at 7.

[11] Id. at 12.

[12] Id. at 5.

[13] Id. at 13.

[14] Id. at 13. The "X" classifications in the API 5L Standard are based on pressure ratings. X70 steel pipe is designed to withstand a pressure of 70,000 psi, X65 steel pipe is designed to withstand 65,000 psi, etc.

by two former Jindal pipe mill employees that Jindal's production of steel for the East Texas Pipeline could impact the pipeline's integrity.[60] Although PHMSA provided no detail on these allegations, Gulf South, the initial developer of this pipeline, responded to them by conducting:

- a review of current inspection procedures,
- a review of recordkeeping and data storage practices,
- cross-checks on pipe data across multiple independent sources including: Jindal, Gulf South, and third party suppliers for Jindal (double-joint contractors, NDE contractors),
- a physical audit of selected pipe with alleged issues,
- a spot audit of inspection areas in question, and
- immediate implementation of an independent tracking and verification database for pipe procedures beyond the pipe mill to assure an independent check of pipe specification conformance, quality, and disposition through final shipment and receipt at Gulf South's field yards.[61]

Unfortunately, PHMSA provided very limited information about these early reports of pipe mill quality control problems. Nonetheless, the limited information provided indicates that the steel pipe industry was experiencing quality control challenges in 2007.

Summary of Industry Production and Use of Defective Steel Pipe

The information provided by PHMSA in response to the FOIA Request is not as comprehensive as expected. Nonetheless, it indicates that most pipe mills provide limited numbers of joints of substandard pipe, but in 2007 to 2009 the Welspun-Essar mill combination produced an unusually large amount of defective pipe, and that the Jindal-Mittal-Azovstal mill combinations also produced a significant amount of defective pipe.

Even though PHMSA did not provide data tracing the defective pipe steel to specific steel mills, it appears that PHMSA, Kinder Morgan, and Boardwalk may very well have such data. In any case, the data provided by PHMSA shows that the problem here was not caused by random quality variation within the pipe manufacturing industry but rather the vast majority of the substandard steel provided to Boardwalk and Kinder Morgan can be attributed to the Welspun-Essar and Jindal-Mittal-Azovstal mill combinations.

The information provided by PHMSA also identifies that at least three distinct mechanisms are believed to have caused the low-strength steel pipe provided to Boardwalk and Kinder Morgan: (1) improper steel chemistry; (2) improper rolling of steel plate; and (3) a lack of proper segregation of slabs of different grades of steel at steel mills. Other causes are possible. All of the identified mechanisms can result in violations of the API 5L X70 Standard and would impact the quality of large diameter X70 pipe regardless of the specific size. Also, market conditions during this time period may also have contributed to steel and pipe mill quality control failings.

While the low-strength steel problem was first discovered after investigation of two failed hydrotests caused by low-strength steel pipe, hydrotesting did not identify the full scope of this problem. Only two of hundreds of defective pipe joints burst during the hydrotests. Instead, the scope of this

[60] Emails, W. Bennett and J. Earley, Boardwalk, to S. Nanney et al., PHMSA, September 10-11, 2007.
[61] Id.; Email, J. Garris, Boardwalk, to S. Nanney, PHMSA, September 24, 2007 (further describing Boardwalk's response).

USE OF SUBSTANDARD STEEL BY THE U.S. PIPELINE INDUSTRY 2007 TO 2009

Plains Justice
June 28, 2010

310 North 27th Street
Billings, MT 59102
406-696-8700

100 First Street SW
Cedar Rapids, IA 52404
319-362-2120

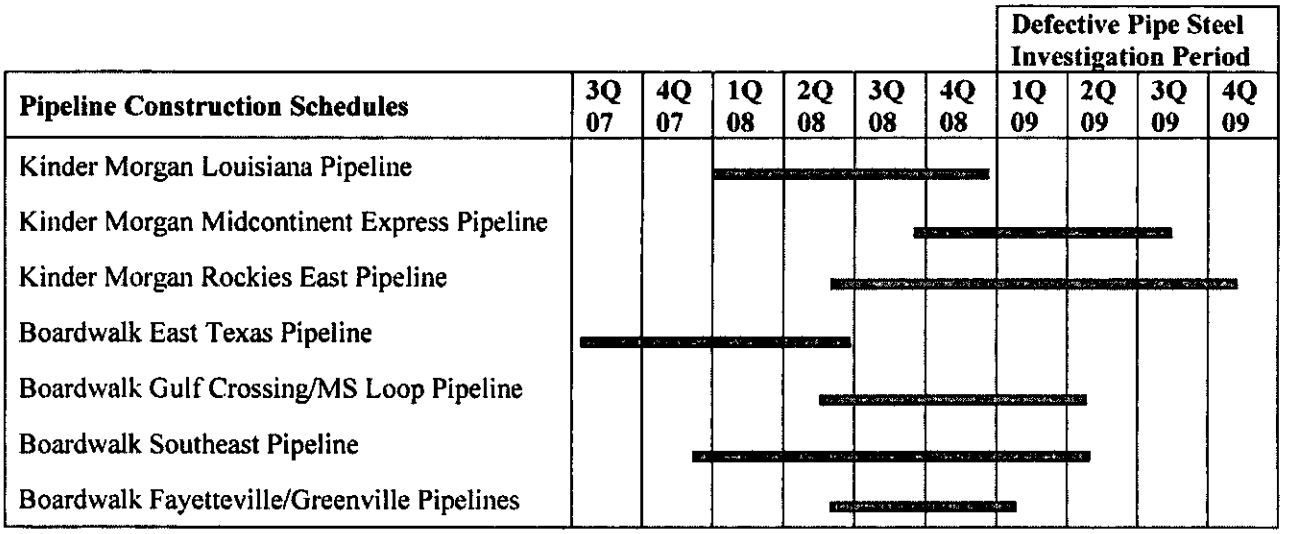
100 East Main Street
Vermillion, SD 57069
605-659-0298

Fax: 866-484-2373 **info@plainsjustice.org** **http://plainsjustice.org**

Printed on recycled paper

INDUSTRY USE OF SUBSTANDARD STEEL PIPE

Between the third quarter of 2007 and the fourth quarter of 2009, Kinder Morgan Inc. and Boardwalk Pipeline Partners, L.P., constructed a number of new large, high-pressure natural gas pipelines. The approximate construction schedules for these pipelines are shown below.



Upon completion, each of these pipelines was "hydrotested," meaning that each new pipeline was filled with water and pressurized to find out if it had any leaks. Five of these pipelines failed their hydrotests, including the Louisiana Pipeline, the East Texas Pipeline, the Mississippi Loop portion of the Gulf Crossing Pipeline, and the Fayetteville Pipeline. As described below, these tests triggered an investigation by PHMSA, which ultimately determined that these companies had incorporated significant amounts of defective steel pipe into their pipelines.

Kinder Morgan Investigation

PHMSA investigated three Kinder Morgan pipelines:

- Kinder Morgan Louisiana Pipeline (Louisiana Pipeline) – 137 mile 42 inch diameter natural gas pipeline constructed between January 2008 and December 2008; [1]
- Midcontinent Express Pipeline – approximately 500 mile long natural gas pipeline with 40 miles of 30 inch pipe, 197 miles of 36 inch pipe, and 257 miles of 42 inch pipe, constructed between September 2008 and August 2009;[2] and
- Rockies Express Pipeline – East Project (REX East) – a 639 mile 42 inch diameter natural gas pipeline constructed between June 2008 and November 2009.[3]

Investigation of each of these pipelines is discussed below.

---

[1] Kinder Morgan, Presentation, *Kinder Morgan Louisiana Pipeline (KMLP) – Pipe Issues*, December 15, 2008 (KMLP December 15 Presentation) at 2; *Kinder Morgan 10-K*, February 23, 2009. Given the danger of natural gas leaks and ruptures, initial pressure tests are conducted with water rather than natural gas.

[2] U.S. Dept. of Transportation, *Special Permit for the Midcontinent Express Pipeline*, April 4, 2007; *Kinder Morgan 10-K*, February 23, 2009.

[3] *Kinder Morgan 10-K*, February 23, 2009.

SUMMARY

Between 2007 and 2009 a number of pipe mills produced substandard steel pipe for U.S. pipeline companies. This pipe failed to comply with the American Petroleum Institute Grade 5L X70 standard (API 5L X70 Standard). In response to this discovery of defective pipe, on May 21, 2009, the Pipeline and Hazardous Materials Safety Administration (PHMSA) issued Advisory Bulletin ABD-09-01, entitled "Potential Low and Variable Yield and Tensile Strength and Chemical Composition Properties in High Strength Line Pipe" (Advisory Bulletin). The Advisory Bulletin described the low strength steel pipe issue and recommended an industry response to it in very general terms.

To learn more about this problem, a number of groups submitted a Freedom of Information Act Request to PHMSA on September 2, 2009, which requested documents related to PHMSA's investigation of and response to this problem. In response, in March and May of 2010, PHMSA sent 3,710 pages of information, including test results and reports, emails, letters, presentations, and other documents. This report is intended to summarize the material disclosed by PHMSA, discuss its implications, and identify a number of concerns that may not have been fully addressed by PHMSA and the industry.

The documents provided show that PHMSA investigated a total of seven pipelines, four constructed by Boardwalk Partners, LP (Boardwalk), and three by Kinder Morgan, Inc. (Kinder Morgan). PHMSA confirmed that five of these pipelines contained significant amounts of defective pipe. Specifically, the documents show that the pipe stretched under pressure, creating "expansion anomalies" that indicate use of low-strength steel. To repair their pipelines, the affected companies removed and replaced hundreds of pipe joints.

A number of companies are implicated in producing defective pipe, but it appears that Welspun Corp. Ltd (Welspun), an Indian steel pipe manufacturer, produced most of it. For example, according to released documents, Welspun was responsible for 88% of pipe with expansion anomalies provided to Boardwalk. This being said, other pipe mills also provided defective pipe, some in significant amounts. **Globalization of steel pipe supply chains has made quality control more challenging and increased the need for greater domestic measures to ensure discovery of defective pipe.**

Even though the documents released show that certain pipe mills provided most of the defective pipe, none of the documents describe any systematic approach to defining the scope of this problem or identify the final disposition of pipe provided by these mills during this time period. Thus, it is not clear that PHMSA has tracked down all of the potentially defective pipe joints and confirmed that they have been tested and, where necessary, replaced. Accordingly, this report provides recommended actions, accomplishment of which would assure the public that PHMSA has responded fully to the threat created by low-strength steel.

New natural gas and hazardous liquid pipelines are larger, higher pressure, and more dangerous than earlier generations of pipelines. It is critical that PHMSA fully investigate the root cause of the industry's failure to comply with pipe steel standards so that appropriate solutions are implemented. **It is also critical that large high-pressure pipelines be regulated more stringently than smaller lower pressure pipelines, including measures that increase certainty of the industry's compliance with written standards.**

Public confidence in pipeline safety will be increased only through greater regulatory transparency, increased opportunities for public participation, and a demonstration that PHMSA will respond aggressively to the increasing need to update and improve pipeline safety standards.

Kinder Morgan Midcontinent Express Pipeline

Due apparently to the failure of the Louisiana Pipeline, PHMSA investigated whether or not Kinder Morgan also used substandard pipe in its Midcontinent Express Pipeline.[15] Specifically, it tested 30 samples of steel from API 5L X70 42-inch pipe manufactured by Man Industries in India.[16] Man Industries contracted to supply 257 miles of 42-inch pipe to Midcontinent Express Pipeline, which is the length of the entire 42-inch segment of this pipeline.[17] Kinder Morgan found that all 30 steel samples complied with strength standards.[18] It appears that Kinder Morgan did not test the steel from pipe manufactured for the Midcontinent Express Pipeline by other companies. These companies included Welspun, which provided a majority of the 197 miles of 36-inch pipe,[19] and JSW, IVLA, and Evra OSM Portland, which provided smaller amounts of pipe.[20]

Even though Kinder Morgan ran a "construction type" caliper tool immediately after construction of the Midcontinent Express Pipeline,[21] apparently this tool was not considered adequate to test for pipe expansions, because Kinder Morgan also tested this pipeline with a high resolution caliper tool owned by TDW Magpie.[22] This high resolution tool discovered one 42-inch pipe joint that expanded 2.08%, which was removed and replaced. Kinder Morgan also reported that 1,906 feet of 42-inch pipe joints had expanded between 0.6% and 1.32%, but it deemed these pipe joints to be safe.[23] None of the documents we received indicate that Kinder Morgan tested the 36-inch diameter Welspun pipe with the high resolution tool.

Kinder Morgan's detailed test results for the Midcontinent Express Pipeline have not been disclosed. Further, Kinder Morgan may not have tested the 36-inch Welspun pipe in this pipeline with a high resolution caliper tool. Therefore it is not possible to compare these test results to test results from other pipelines. Nonetheless, it is clear that PHMSA required the removal of at least on defective pipe joint. I also appears that the pipe produced by Man Industries did not suffer a large number of significant expansions because perhaps only a few dozen pipe joints expanded modestly.

Kinder Morgan Rockies Express Pipeline – East Project

PHMSA also investigated whether Kinder Morgan had used substandard steel in the construction of its Rockies Express Pipeline (REX). As it did for other pipelines, PHMSA required that Kinder Morgan test the pipeline with high resolution deformation tool.[24] Kinder Morgan reported inconsistently that one pipe joint had expanded 1.07%[25] but also found that that no pipe joints showed an expansion of greater than 0.79% of pipeline diameter.[26] Otherwise, PHMSA provided no detailed documentation related to investigation of the steel in this pipeline or the source of this steel. However, press reports indicate that Kinder Morgan contracted with Oregon Steel Mills, Inc. to supply all or most of the 42 inch

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[15] Email, J. Torres, Kinder Morgan, to J. Mendoza, PHMSA, January 5, 2009; Email, J. Mendoza, Project Manager, PHMSA, to T. Binns, PHMSA, June 3, 2009.
[16] Kinder Morgan Metallurgical Investigation Report NGI-09-01, January 8, 2009.
[17] Business Line, Man Ind. Bags Rs 1,000-cr Order from Midcontinent of US, March 30, 2007.
[18] Kinder Morgan Metallurgical Investigation Report NGI-09-01, January 8, 2009.
[19] Email, J. Mendoza, PHMSA, to J. Torres and K. Kahncke, PHMSA, May 4, 2009.
[20] Id.; Kinder Morgan Metallurgical Investigation Report NGI-09-01, January 8, 2009 at 11.
[21] Email, J. Mendoza, PHMSA, to J. Torres and K. Kahncke, PHMSA, May 4, 2009.
[22] Email, D. Burton, VP Kinder Morgan, to A. Mayberry, PHMSA, October 1, 2009.
[23] Letter, D. Burton, VP Kinder Morgan, to A. Mayberry, PHMSA, August 25, 2009 (Appendix A, Technical Discussion for Pipe Diameters in Excess of 0.6% of Pipe Body Diameter For Midcontinent Express Pipeline at 3-4).
[24] Letter, D. Burton, VP Kinder Morgan, to I. Huntoon, PHMSA, August 27, 2009.
[25] Email, D. Burton, VP Kinder Morgan, to I. Huntoon, PHMSA, August 17, 2009.
[26] Letter, D. Burton, VP Kinder Morgan, to I. Huntoon, PHMSA, August 27, 2009. There may be a reasonable explanation for this inconsistent reporting, but the information received did not provide it.

pipe used in REX.[27] Despite a lack of detailed data, the documents provided do indicate that the steel pipe provided by Oregon Steel Mills showed little expansion.

Kinder Morgan Investigation Summary

Kinder Morgan constructed the Louisiana, Midcontinent Express, and REX pipelines between mid-2008 and the end of 2009. One of these, the Louisiana Pipeline, suffered a rupture during a hydrotest. In response, PHMSA ordered Kinder Morgan to investigate each of these pipelines to determine if they contained substandard steel, and Kinder Morgan used a high resolution caliper tool to test each pipeline for excessive expansion. Kinder Morgan determined that Welspun provided defective steel pipe for construction of this pipeline, and after testing the pipe for strength, removed 7,100 feet of defective pipe joints and left others in place but with down-graded ratings. With regard to the Midcontinent Express and REX pipelines, Kinder Morgan discovered limited expansions in pipe provided by Man Industries and Oregon Steel Mills and ordered the removal of only one pipe joint. It does not appear that PHMSA required Kinder Morgan to inspect the 36-inch Welspun pipe used in the Midcontinent Express Pipeline, such that it is not possible to evaluate the performance of this pipe.

Boardwalk Pipeline Partners Investigation

From 2007 to 2009 Boardwalk Pipeline Partners (Boardwalk) constructed a number of natural gas pipelines in the south central U.S. including:

- East Texas Pipeline – a 238 mile long 42-inch diameter natural gas pipeline constructed between July 2007 and June 2008;
- Gulf Crossing/Mississippi Loop Pipeline – 355 miles of 42-inch diameter natural gas pipeline constructed between June 2008 and February 2009;
- Southeast Pipeline – a 111 mile 42-inch natural gas pipeline constructed between December 2007 and February 2009; and
- Fayetteville/Greenville Pipelines – two 36-inch natural gas lateral pipelines[28] with a combined length of 263 miles constructed between March 2008 and January 2009.

The East Texas, Gulf Crossing, and Southeast pipelines were mostly constructed with 42-inch diameter pipe, although some 36-inch pipe was used in these projects. The Fayetteville/Greenville Pipelines were comprised of 36-inch diameter pipe, although some 20-inch pipe was used as well. All of these pipelines were to be constructed using steel in conformance with the API 5L X70 Standard.

PHMSA's investigation of Boardwalk's use of defective steel appears to have been triggered by a series of failed hydrotests in Boardwalk's pipelines.[29] Three of these failures were caused by defective end welds.[30] The fourth failure, in the Mississippi Loop Pipeline on December 5, 2008, was caused by use of substandard steel in pipe number 07388793.[31] In response to these failed hydrotests, PHMSA

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[27] Press Release, Oregon Steel Mills, Inc., *Oregon Steel Announces Receipt of 510,000 Ton Large Diameter Pipe Order*, March 1, 2006.

[28] The Fayetteville and Greenville Pipelines are in fact separate pipelines, but since much of the Boardwalk data for these pipelines is reported together, this report treats them as one project.

[29] The East Texas Pipeline failed a hydrotest in February 2008, the Southeast Pipeline failed on April 24, 2008, the Mississippi Loop Pipeline failed on December 5, 2008, and the Fayetteville Pipeline failed on March 11, 2009.

[30] Pipelines are constructed by welding joints of pipe end-to-end. Here three of these types of welds failed.

[31] Boardwalk Partners Update, November 6, 2009, Deformation Lab Results for Mississippi Loop Pipeline.

ordered Boardwalk to conduct a high resolution caliper test for each pipeline, similar to the tests performed by Kinder Morgan. This investigation produced surprising results.

First, Boardwalk determined that a mill owned by the Mittal Steel Company in Mexico (Mittal) accidentally substituted three slabs of API 5L X70 steel with three slabs of low grade steel, thereby mistakenly providing steel that did not conform to the API 5L X70 Standard to the JSW pipe mill owned by Jindal Pipes Limited.[32] One of these pipe joints, number 07388793, burst during the Mississippi Loop hydrotest.[33] The other two pipes containing switched slabs expanded but did not burst.[34]

The high resolution caliper testing also determined that an Essar steel mill in India accidentally switched one slab provided to Welspun (pipe number D08132667).[35] This slab ultimately ended up in the Gulf Crossing Pipeline.[36]

The fact that only one switched slab burst when hydrotested suggests that hydrotests alone cannot be relied upon as the only means to discover even grossly substandard steel, and that high resolution caliper testing is also necessary.

Second, the high resolution caliper tests identified 550 expansion "anomalies" in Boardwalk's pipelines.[37] The following chart[38] summarizes the numbers and severity of these expansion anomalies for each Boardwalk pipeline.

Pipeline	Total Miles	% of Total Miles	Expan-sions /mile	Expan-sions > 2%	Expan-sions >1%<2%	Expan-sions 0.25"-1%	Expan-sions <0.25"	Total Exp's - All Sizes	% of Total Exp's
East Texas	238	25%	0.55	9	48	56	18	**131**	24%
Gulf Crossing/ MS Loop	355	37%	0.08	2	9	16	3	**30**	5%
Southeast	111	11%	0.04	0	2	2	0	**4**	1%
Fayetteville/ Greenville	263	27%	1.46	53	150	173	9	**385**	70%
Total	**967**	**100%**	**0.57**	**64**	**209**	**247**	**30**	**550**	**100%**

This data shows that the expansion anomalies were not evenly distributed among the pipelines, as would be expected if the cause of the expansions was based on random variability in steel quality. In fact, the East Texas and Fayetteville/Greenville Pipelines together accounted for 94% of the excessive expansion anomalies. Further, a full 70% of the expansion anomalies were in the Fayetteville/Greenville Pipelines even though they accounted for only 27% of total pipeline length.

The number of expansions per mile ranged from a high of about one and one-half expansions per mile in the Fayetteville/Greenville Pipeline, to a low of one expansion every 25 miles in the Southeast

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[32] Id.
[33] Id.
[34] Id.
[35] Id. Deformation Lab Results for Gulf Crossing, Paris to Mira Segment.
[36] Id.
[37] Boardwalk Pipeline Partners Update, November 6, 2009.
[38] Id. Expansion anomaly data provided herein are based on Boardwalk's November 6, 2009, Update, which is the most recent Boardwalk Update provided by PHMSA in response the FOIA request.

Pipeline, making the anomaly rate in the Fayetteville/Greenville lines over 36 times higher than that in the Southeast Pipeline.

Boardwalk also identified the pipe manufacturers and steel mills that provided plate steel to the pipe manufacturers for each of the investigated pipelines,[39] and this information is summarized in the following table. Small amounts of pipe were also provided by Durabond and IPSCO.

Pipe Supplier	Steel Mills Supplying Slab Steel to Pipe Supplier	Total Miles of Pipe Installed	Percent of Pipe Installed
Jindal/JSW (India)	Azovstral (Ukraine) Mittal (Mexico) Essar (India) Jindal (India)	536	55%
Welspun (India)	Essar (India) POSCO (Korea) BAOSTEEL (China) TISCO (China)	363	38%
Camrose (US)	Mittal (Mexico)	68	7%

Jindal and Welspun provided 93% of the pipe for these pipelines. Jindal sourced its steel from the Ukraine, Mexico, and India. Welspun sourced its steel from China, Korea, and India. The only steel mill that provided steel to both Jindal and Welspun was the Essar steel mill.

Boardwalk also identified the pipe manufacturers that provided expanded pipe for each pipeline.[40]

Pipeline	Camrose Total Expansions	Camrose % of Total Expansions	Welspun Total Expansions	Welspun % of Total Expansions	Jindal Total Expansions	Jindal % of Total Expansions
East Texas	0	0%	93	71%	38	29%
Gulf Crossing/ MS Loop	0	0%	7	23%	23	77%
Southeast	0	0%	0	0%	4	100%
Fayetteville/ Greenville	0	0%	385	100%	0	0%
Total	**0**	**0%**	**485**	**88%**	**65**	**12%**

Thus, 88% of the recorded expansion anomalies were in pipe provided by Welspun. Moreover, as shown below, it appears that the Welspun pipe stretched more than the Jindal pipe.[41]

Pipe Supplier	Expansion >2%	Expansion >1% <2%	Expansion 0.25" - 1%	Expansion <0.25"	Total Expansions
Jindal/JSW	2	17	35	11	65
Welspun	62	192	212	19	485

This data shows that 13% of the Welspun anomalies exhibited expansion greater than 2%, whereas only 3% of the Jindal anomalies exhibited expansions of this amount. Further, 40% of the Welspun anomalies

[39] Boardwalk, Summary of Pipe and Slab/Coil Sources Used on Boardwalk Expansion Projects, March 2, 2009.
[40] Boardwalk Pipeline Partners Update, November 6, 2009.
[41] Id.

exhibited expansion of between 1% and 2%, whereas only 26% of the Jindal expansions were in this range. This data shows that Welspun pipe varies more in quality than Jindal pipe.

Even though PHMSA did not provide any systematic analysis showing which steel mills provided the steel used in each defective pipe joint,[42] it did provide some test data indicating that Boardwalk and PHMSA focused their testing efforts on steel provided by certain steel mills.[43] The following table summarizes the number of tests performed on expanded pipe joints by pipe manufacturer and steel mill.

Pipe Mill	**Tests on Welspun Pipe**							**Tests on Jindal Pipe**				
Steel Mill	**Anshan**	**Baosteel**	**Essar**	**Mittal**	**POSCO**	**TISCO**	**Welspun Total**	**Azovstal**	**Mittal**	**Essar**	**JSW**	**Jindal Total**
Pipelines												
East Texas												
Carthage to Hall Summit								2	2			4
Hall Summit to Vixen								2	4			6
Tullulah to Harrisville	2		69	2			73	1	6			7
Vixen to Tallulah								4	2			6
Gulf Crossing												
Bennington to Paris									1			1
Mira to Sterlington								1	2			3
Paris to Mira									4	1	5	10
Sterlington to Tallulah					1	6	7					
Mississippi Loop								3	3			6
Southeast								2	2	1		5
Fayetteville												
Bald Knob to Lula			23				23					
Grandville to Bald Knob		2	2				4					
Greenville		7	5				12					
Total Tests	**2**	**9**	**99**	**2**	**1**	**6**	**119**	**15**	**26**	**2**	**5**	**48**

For Welspun, 119 pipe joints were tested; for Jindal 48 pipe joints were tested.

[42] It appears that PHMSA and Boardwalk determined that the defective steel could be traced to certain steel mills, because Boardwalk requested a variance from its Special Permit Modification Agreement for Welspun pipe manufactured with POSCO steel since only one pipe joint manufactured with POSCO steel had expanded. Letter, D. Goodwin, VP Boardwalk Pipeline Partners, to A. Mayberry, PHMSA, July 22, 2009.

[43] Boardwalk Pipeline Partners Update, November 6, 2009.

The following table shows Boardwalk tested pipe made with Essar steel almost four times more than pipe made with steel from any other mill.

Steel Mill	# Tests	% of Tests
Anshan	2	1%
Azovstal	15	9%
Baosteel	9	5%
Essar	101	60%
JSW	5	3%
Mittal	28	17%
POSCO	1	1%
TISCO	6	4%
Total	**167**	**100%**

This data shows that PHMSA and Boardwalk focused most of the strength testing on pipe produced by the Welspun-Essar combination.

That there is a correlation between pipe expansions and pipe strength is shown by metallurgical test data for the Fayetteville/Greenville Pipelines provided by Boardwalk to PHMSA on October 7, 2009.[44] This test data shows results for strength tests of 46 Welspun pipe joints, all of which were fabricated using steel from the Essar steel mill.[45] Boardwalk strength tested 28 joints that had expanded more than 1.5%, 10 joints that had expanded approximately 1%, and eight joints that were "control joints" that showed no expansion. Each joint was subjected to nine separate tests.[46] Almost all of the joints that had expanded more than 1.5% failed most of the strength tests.[47] The joints that expanded approximately 1% also failed most of the strength tests.[48] In contrast, six of the eight control joints exceeded strength standards by substantial margins.[49] The two control joints that did not pass all of the strength tests failed in only a few sample runs by narrow margins but generally passed almost all of the strength tests.[50] This data shows a clear correlation between pipe expansions and the use of substandard steel.

Even though it appears that PHMSA could order Boardwalk to trace each expansion anomaly to a specific steel mill, PHMSA did not provide such information in response to the FOIA Request. Further, the absence of a root-cause analysis in the information provided in response to the FOIA Request suggests that PHMSA did not conduct, report on, and/or disclose such analysis. Therefore, based on the documents provided by PHMSA it is not possible to determine the full extent of the low-strength steel problem or trace all possible low-strength steel from particular steel and pipe mills to particular pipelines.

Tracing defective steel back to each steel mill is important because other PHMSA data suggests that one of the causes of the substandard steel was mis-formulation during alloying of the steel. In a September 8, 2009, report by the Microalloyed Steel Institute to PHMSA, the Institute determined that the pipe in the Fayetteville Pipeline (provided by Welspun) and Mississippi Loop Pipeline (provided by Jindal) had improper steel chemistry.[51] The report noted low manganese levels and no vanadium,

[44] Email, D. Goodwin, VP Boardwalk Pipeline Partners, to S. Nanney, PHMSA, October 7, 2009.
[45] Id.
[46] Id. Tests applied included flat strap yield, flat strap tensile, flat strap elongation, round bar yield, round bar tensile, round bar elongation, Charpy toughness, Charpy shear, and grain size tests.
[47] Id.
[48] Id.
[49] Id.
[50] Id.
[51] Letter, J.M. Gray, Microalloyed Steel Institute, to S. Nanney, PHMSA, September 8, 2009.

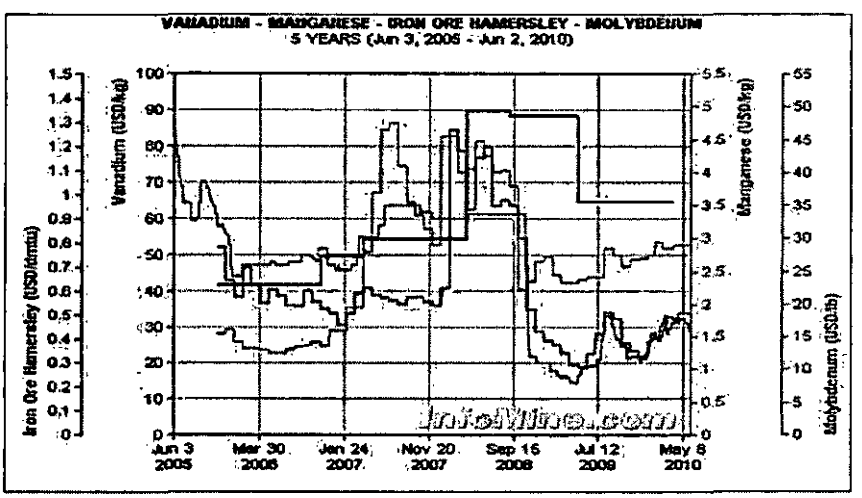
niobium, and molybdenum in steel samples from the Mississippi Loop pipeline, and an absence of vanadium in the Fayetteville Pipeline.[52] The data in Boardwalk's November 6, 2009, Update also indicates that low strength pipe (including the switched slabs) had low levels of vanadium, niobium, and Titanium.[53]

In summary, it appears that 88% of the pipe that expanded was provided to Boardwalk by a single pipe manufacturer, Welspun, even though in terms of length it provided only 38% of the pipe for all the new Boardwalk pipelines combined. Welspun provided a total of 363 miles of pipe that contained 485 expansion anomalies, for a rate of over one anomaly per mile. In contrast, the Jindal pipe had an expansion anomaly rate of about one anomaly every eight miles, and pipe provided by Camrose exhibited no expansion anomalies at all. Also, the expansion anomalies found in the Welspun pipe were markedly worse than the anomalies in the Jindal pipe. Another difference is that Welspun and Jindal sourced their steel from different steel mills, except that they both acquired steel from the Essar steel mill. That Boardwalk and PHMSA focused their attention on pipes made by Welspun-Essar is also indicated by the fact that 60% of all tested pipe joints were made from steel produced by Essar. Further, it appears that mis-formulation of the steel alloy for this pipe may have been a cause of the weakness of some of the Welspun steel pipe.

Ultimately, Boardwalk agreed to remove 305 pipe joints, including all pipe joints in the East Texas, Southeast, Gulf Crossing Pipelines that expanded more than 0.25" (148 pipe joints), and all pipe joints in the Greenville/Fayetteville Pipelines that expanded more than 1.5% (157 pipe joints).

Commodity Prices, Pipe Steel Market Growth and Quality Control

During the period when the defective pipe was fabricated, commodity prices soared, including prices for most metals. The following chart shows that the price for manganese more than tripled in 2007 and the price for iron ore and vanadium more than doubled in 2008.

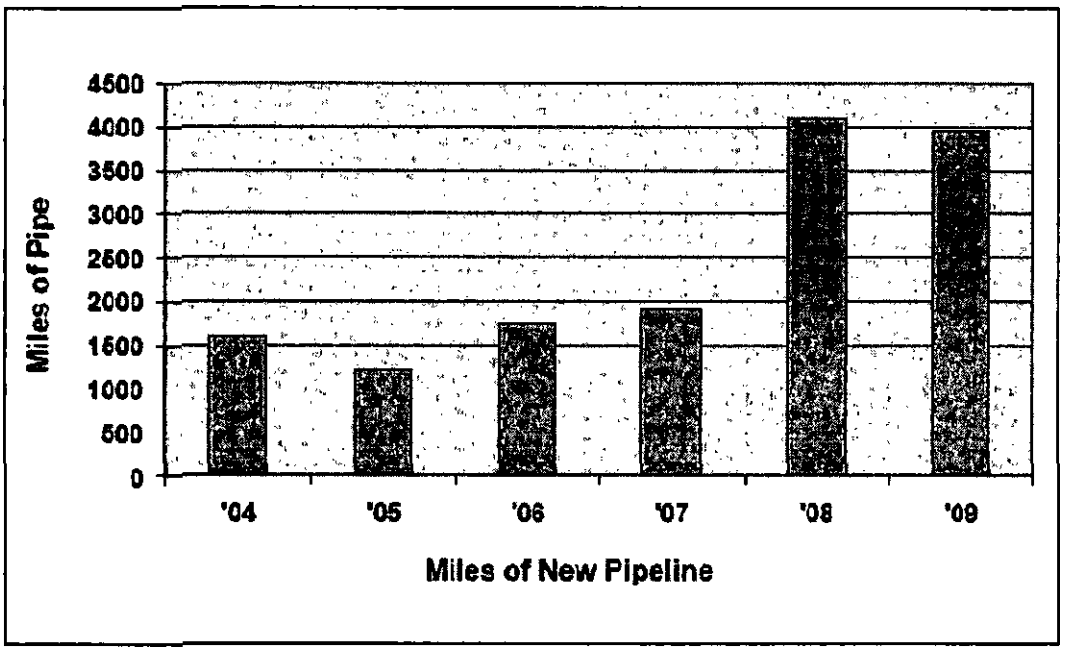


This market evidence indicates that steel mills faced substantially higher prices for raw materials than they likely anticipated. It is reasonable to question whether these dramatic changes in commodity prices shifted steel mill priorities toward meeting production and price goals and away from quality control, including control over the quality of raw materials and steel formulation. However, in the absence of

[52] Id.
[53] Boardwalk Pipeline Partners Update, November 6, 2009.

systematic metallurgical analysis, it is not possible to know with certainty that a pattern of production of mis-alloyed steel existed, and that this was the root cause of the production of substandard pipe by manufacturers.

During this same time period, demand for steel increased dramatically. According to the industry graph below, between 2007 and 2008 the miles of new pipe installed by the industry doubled.[54]



Source: ICF International

This increase in installed miles of pipe is reflected in a corresponding growth in sales of pipe by pipe mills. For example, from 2006 to 2009, Welspun increased its pipe production rapidly, registering nearly 50% increases in sales in fiscal years 2007 and 2008.[55] Its pipe volume production rate increased by 34% in the third quarter of 2008 alone.[56] This rapid growth likely required the retention and training of new employees, pressed steel and pipe mill infrastructure to its limits, and resulted in substantial management pressure on personnel to meet production deadlines. Such production conditions could have adversely impacted quality control.

PHMSA knew about quality control problems at a Jindal pipe mill as early as May 2007.[57] Specifically, PHMSA conducted a visit of a Jindal mill to review quality control problems.[58] PHMSA produced a list of concerns related to pipe rolling and coating, mill hydrotest equipment failures, seam inspection equipment failures, steel plate rejections, pipe end quality, pipe repair quality, pipe tracking, and oil and chloride contamination.[59] Also, in September, 2007, Boardwalk was informed of allegations

[54] Presentation, M. Hereth, INGAA Foundation, *Best Practices in Procurement and Manufacturing Workshop*, June 9, 2010, at 2.
[55] KJMC Institutional Research, *Reseach Updates, Welspun Gujarat Stahl Rohren Limited*, June 3, 2009 and April 29, 2010.
[56] Hindu Business Line, *Welspun Gujarat Stahl Rohren: Buy*, November 23, 2008.
[57] Email, H. Wang, Boardwalk, to S. Nanney, PHMSA, June 25, 2007.
[58] Id.
[59] Id.

problem was identified only through high resolution caliper testing. Ultimately, PHMSA and the industry concluded that this problem was of sufficient gravity to require the removal and replacement of hundreds of pipe joints.

Unfortunately, it does not appear that PHMSA has yet conducted a comprehensive root-cause analysis of this problem, given that it provided no such analysis in response to the FOIA Request. It also appears that PHMSA may not have conducted a comprehensive study of the possible flow of defective steel pipe from steel and pipe mills noted herein to new natural gas and hazardous liquid pipelines constructed in the U.S. from 2007 to 2009. Instead it appears that PHMSA limited its investigation to only Kinder Morgan and Boardwalk.

INDUSTRY TRADE ASSOCIATION RESPONSE

PHMSA's first formal action related to the defective pipe steel problem was to issue the Advisory Bulletin.[62] In response, the industry convened a meeting on or about June 11, 2009, to which PHMSA was not invited.[63] Apparently, one product of this meeting was a September 2009 White Paper by the Interstate Natural Gas Association of America Foundation (INGAA Foundation) entitled, "Identification of Pipe with Low and Variable Mechanical Properties in High Strength, Low Alloy Steels" (INGAA White Paper). By way of background to this issue, the INGAA White Paper states the following:

> During 2007 and 2008 there was a significant increase in new pipeline construction in the United States. This construction boom put almost unprecedented demands on both pipe and other material manufacturers and pipeline constructors. To meet the demands for high yield line pipe, both traditional and newer pipe mills, utilizing plate and coil from both established and nontraditional steel suppliers, were used. During post-commissioning test (field hydrostatic test) inspection of some of these lines, a small number of pipe joints were detected that had expanded well beyond the dimensional tolerance limits of the pipe manufacturing specification, API Specification 5L. In most cases, the point at which this expansion occurred has not been definitively determined. As the investigation of this phenomenon progressed, it became apparent that it was not limited to one pipe mill, one steel supplier, or one manufacturing process. Through experience of a limited number of operators, it appeared that this issue was a rarity, affecting an extremely small percentage of pipe joints produced. However because the phenomenon could not be isolated or traced to a single source, PHMSA issued [the] Advisory Bulletin.[64]

Thus, due to a boom in pipeline construction, the industry admits that it acquired pipe from "newer," and presumably less experienced pipe mills, and that some pipe mills acquired steel from "nontraditional" steel mills, which could be less familiar with the exacting quality control standards that regulate the construction of pipelines in the United States. It is reasonable to believe that unprecedented demands for high-strength steel pipe and high commodity costs increased the risk of production of substandard pipe in 2007 and 2008.

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[62] PHMSA Advisory Bulletin ABD-09-01, *Potential Low and Variable Yield and Tensile Strength and Chemical Composition Properties in High Strength Line Pipe*, 74 Fed. Reg. 23930, May 21, 2009. PHMSA also conducted a workshop on pipeline construction issues on April 23, 2009, which addressed a variety of pipeline construction failings.

[63] Emails, P. Lidiak, API, to J. Wiese, PHMSA, May 21, 2009.

[64] INGAA White Paper at 1.

Rather than seek or provide greater clarity about the cause and sources of the pipe joints that "expanded well beyond the dimensional limits of the pipe manufacturing specification, API Specification 5L," the industry merely stated that the "point" of expansion (presumably this means time and cause of expansion) had not been "definitively determined." It also stated that the expansions were not limited to one pipe mill, one steel mill, or one manufacturing process, thereby implying that problems linked to only a single supplier should be of concern (which makes no logical sense). It did not support its statements with any data. It also stated that industry operators believe that the quality control problems were a "rarity, affecting an extremely small percentage of pipe joints produced," but failed to reference or provide any data supporting this statement or discuss the risks created by small amounts of defective pipe. After all, it only takes one bad pipe joint to create an environmental and economic disaster. In short, the INGAA White Paper ignored any detailed discussion of the root causes of the substandard pipe and offered only unfounded generalizations about the problem rather than solid explanations.

The industry attempted to justify a limited response to this problem by discussing historical pipeline failures occurring prior to the events that precipitated the Advisory Bulletin.[65] Historical data is not relevant when current evidence suggests new types of industry failings in "unprecedented" market conditions. Historical data does not justify a lack of robust response by PHMSA or the industry to specifically identified problems.

Finally, the INGAA White Paper contains two flow charts intended to guide an operator of an existing pipeline in its determination of whether it has a "potential issue with pipe quality and if so, what actions should be taken to address those issues."[66] Figure 1 indicates that existing pipelines intended to operate at an 80% design factor are subject to the review included in process B1.[67] Figure 2 and its accompanying text describe the B1 process as being:

1) a determination of whether there is a known history of low mechanical properties or excessive expansion found during normal operations;[68]
2) if such history exists, then a company should conduct an in-line inspection (ILI) during its next assessment; and
3) if such investigation shows expansions greater than "X%" amount (X%" is not specifically defined by the INGAA White Paper, which states only that it may be about 1%) then the company must "evaluate and mitigate" the expansions, apparently within one year of the analysis, however the industry has not identified what "evaluate and mitigate" means, when the one-year period tolls, or what actions might be required based on differing degrees of pipe failings.[69]

Thus, it appears that the industry recommends that operators of existing pipelines, including pipelines constructed between 2007 and 2009, conduct an inspection for expansion anomalies only if their "normal" review of pipe data or information discovered during normal operations indicates that a threat of expanded pipes exists. However, the INGAA White Paper makes no recommendations about the type of

[65] INGAA White Paper at 2.
[66] Id. at 3.
[67] Id.
[68] Id. The INGAA White Paper describes this history as, "Regardless of the preceding steps, if the company, through its normal review of the pipe data, such as is conducted during pipe production, and any other operational data or field observations, such as during tie-ins, installing taps, making coating repairs or performing pipe replacements, has made a determination that the threat of expanded pipe exists, then it must look further for such deformation during the next in-line inspection of the pipeline. If there is no evidence of low strength or excessively expanded pipe, no further action is required. Examples of such evidence include coating flaws caused by pipe strain and improper tie-in of a repair due to strain. This step does not contemplate extraordinary evaluations or inspections, but rather relies on those normally conducted as operations and maintenance activities."
[69] Id. at 6-9.

in-line inspection required, and it specifically states, "This step does not contemplate extraordinary evaluations or inspections, but rather relies on those normally conducted as operations and maintenance activities."[70]

The INGAA Foundation's recommendation is essentially to allow operators of pipelines constructed between 2007 and 2009 to determine by and for themselves whether or not they need to conduct high resolution deformation testing and how to redress any problems found. Its response provides no assurance of any systematic investigation of or response to the defective steel problem. Thus, it appears that the industry makes no recommendation that such operators do any initial investigation beyond normal operations and also does not recommend particular responses.

RECOMMENDED PHMSA ACTIONS

Since this report is based only on documents released pursuant to the FOIA Request, it is not possible to fully know about all of the actions taken by PHMSA in response to the defective steel problem. With this caveat in mind, we recommend that PHMSA take the following actions, if it has not already done so:

- Investigate and provide a public report on the use of defective steel in U.S. hazardous liquid and natural gas pipelines that:
    - identifies the number of defective pipe joints discovered;
    - provides a description of each defective pipe joint;
    - provides any test results performed on each pipe joint;
    - indentifies the pipe and steel mill sources for each defective joint;
    - identifies the root cause or causes of the defective pipe joints; and
    - presents recommended improvements in safety regulations, safety enforcement, pipe steel standards, pipeline testing, quality control surveillance, and other appropriate responses to this problem.

- Order all operators of natural gas and hazardous liquids pipelines constructed between 2007 and 2009 to conduct high-resolution in-line deformation caliper testing and provide the results of such inspections to the public on the PHMSA website;

- Order all operators of natural gas and hazardous liquids pipelines constructed between 2007 and 2009 using API 5L X70 and higher grades of pipe to trace pipe from pipe and steel mills with a history of supplying defective API 5L X70 and higher pipe to all U.S. pipelines that contain such pipe, regardless of pipe diameter, and provide a report to PHMSA and the public describing the use of such pipe in U.S. pipelines.

- Post all hydrotest results provided by pipeline operators on the PHMSA website; and

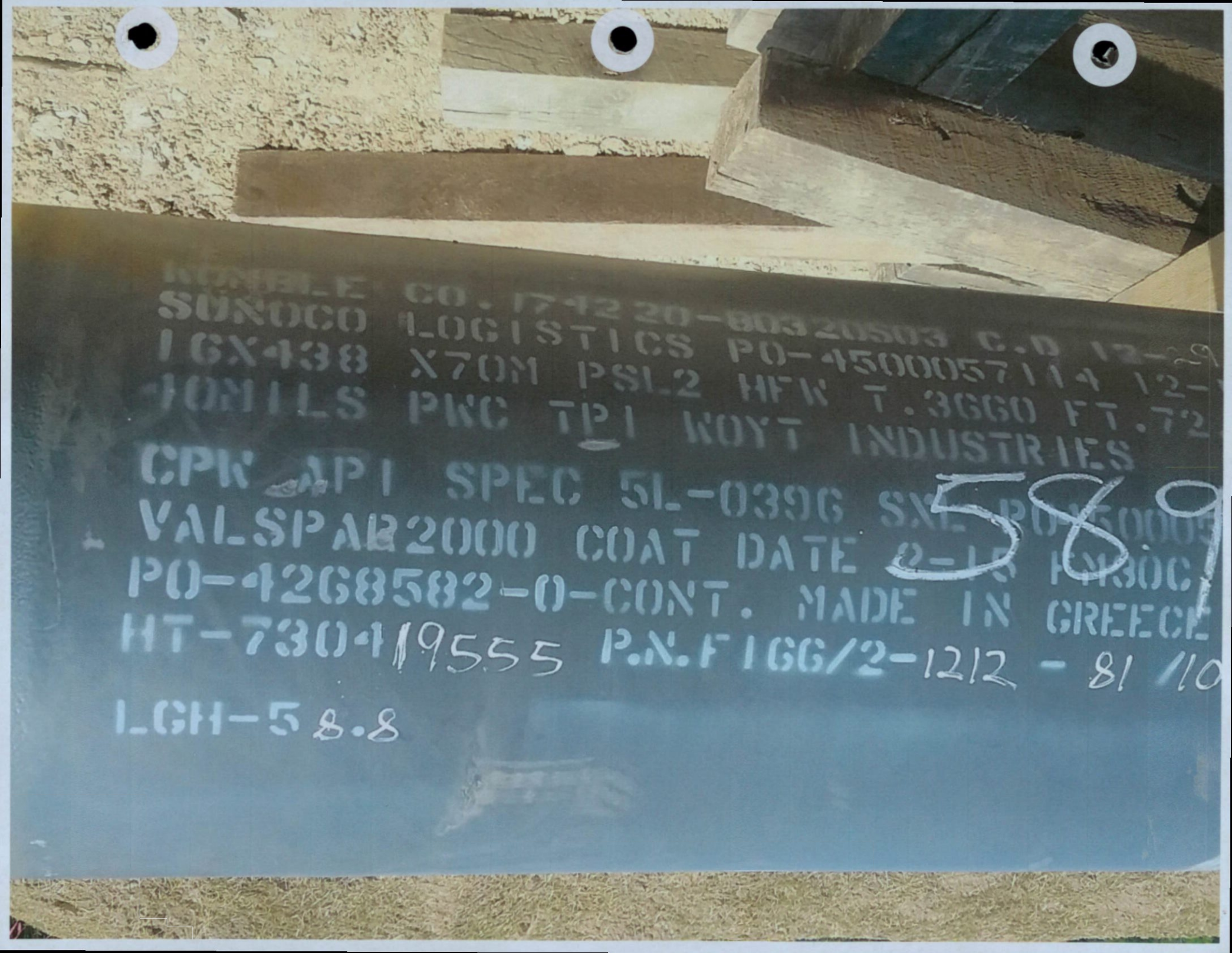
- Reduce the operating pressure of newly conducted hazardous liquid and natural gas pipelines to a design factor of 72% or lower pending completion of PHMSA investigation of possible use of defective pipe steel, any necessary fitness for service determinations, and opportunity for public review and participation in these activities.

All of the foregoing recommendations include easily accessible information disclosures by PHMSA and greater opportunities for public participation in PHMSA activities. Greater transparency in PHMSA operations is necessary to ensure public participation in and support for PHMSA activities. A lack of transparency will result in a lack of trust and risk greater opposition to pipeline development.

[70] Id. at 8.

The growing number of high-pressure, large diameter hazardous liquid and natural gas pipelines are putting increasing numbers of citizens at risk. New large pipelines must be built to the highest standards and be fully tested using the best available technology to ensure that they comply with safety requirements. Existing pipelines, especially large diameter pipelines, must be tested with greater frequency as they age.

To avoid further fatalities, injuries, and property damage, PHMSA must adapt its safety standards, regulations, and enforcement activities to protect citizens and their property from the greater risk posed by new large high-pressure pipelines. To gain greater public trust and public support for its activities, PHMSA must allow citizens to easily learn what it is doing and increase opportunities for citizens to participate in PHMSA's efforts to protect them.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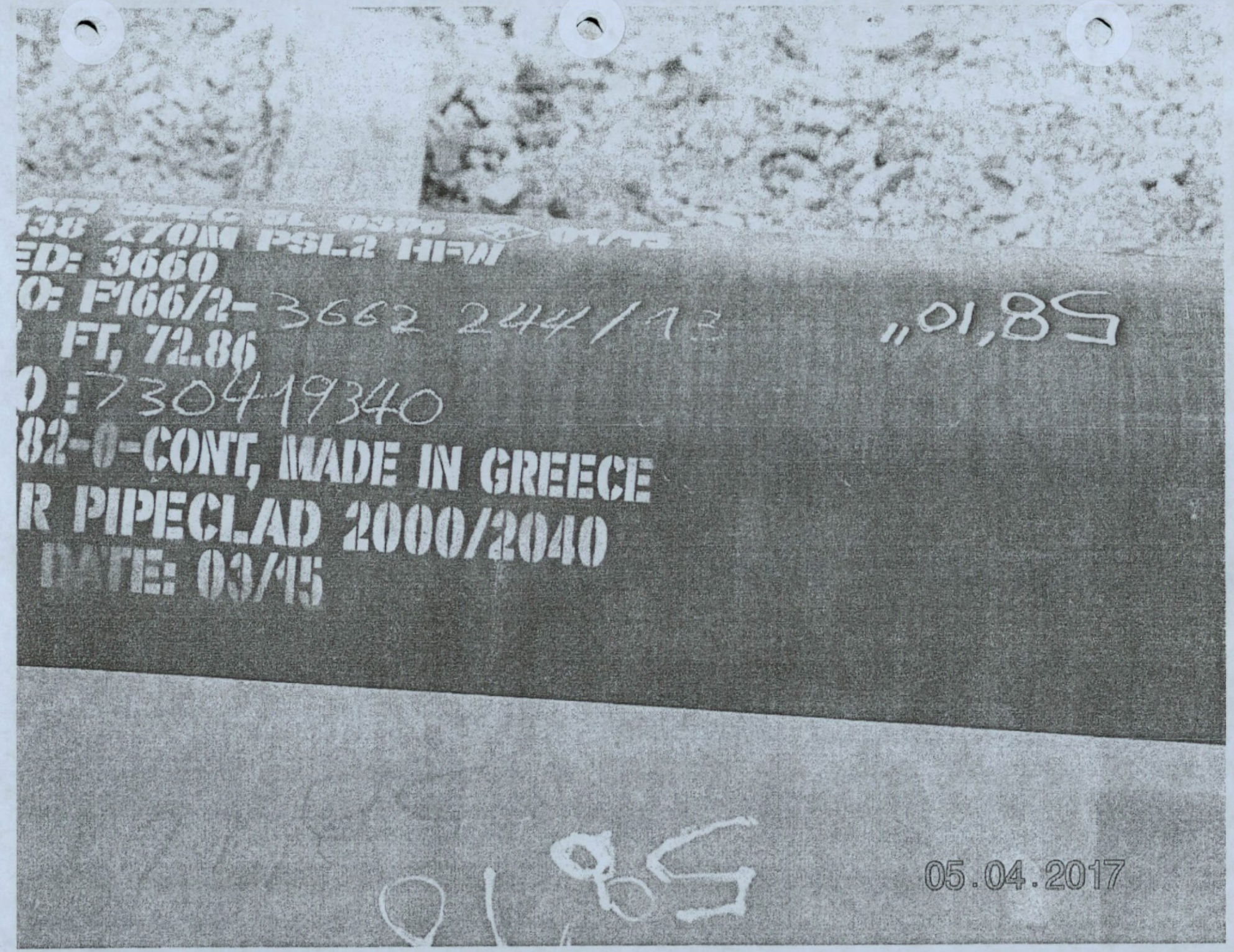
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Heat Number
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11 December 2018

The Honorable Elizabeth H. Barnes
Administrative Law judge
P.O Box 3265
Harrisburg PA 17105-3265

Dear Judge Barnes;

I am writing this letter in order to provide supporting information regarding Wilmer Baker v. Sunoco Logistics. My husband and I reside at 1705 McClures Gap Rd. Carlisle PA; one of many properties across the state impacted by construction of the Mariner 2 pipeline. We have lived here for almost 40 years and have never had a problem with the pipelines that traverse this property. Nor did we have an issue with the products that were transported through them until Energy Transfer Equity (previously known as Energy Transfer Partners/Sunoco Logistics) initiated the Mariner 1 and Mariner 2 east projects.

It became readily apparent early in the process that it would be important to keep tabs on this corporation and their contractors working on the project. So, throughout the period of time that construction was going on at our location I would make observations and take photographs for our landlord should something go wrong during that time or in the future. Several of these photos have already been submitted as part of Mr. Baker's filings. I am enclosing several more for your review (see enclosed). Several of the images show the general condition of the pipeline segments along with others showing how they were placed in the trench.

As a person living within 100 yards of this pipeline I have serious concerns as to the relative safety of this pipeline once it's in full operation especially considering this company's past and current record of safety violations and accidents. The repurposed 83 plus year-old 8" pipeline is a potential problem since reversing the flow and increasing the psi up to 1450 to keep the NGLs in a liquid state goes against all PHMSA recommendations, especially for a pipeline of this age. They spent almost a year digging up and replacing numerous sections of this pipe before it went into operation and yet they still had and most likely will continue to have additional leaks. It's also very concerning that the 16" X 70 M pipeline that was made in Greece and the 20" X 65 pipeline (don't know the origin of this one) used across the state for this pipeline project may fall below industry standards for the transport of NGLs under high pressure. As such this issue should be examined and carefully scrutinized for the sake of all the folks living within or near this pipeline project ROW.

The safety can be readily addressed in two ways. First, there should be some sort of a warning system installed along this pipeline across all 17 counties. Payment for this warning system should be the responsibility of the company responsible for the operation of the pipeline as well as those who transport their products through them (just like the owners of Three Mile

Island Nuclear Power Plant in the early 80s). Second, there should be some type of odorant like ethyl mercaptan put in the NGLs so that folks could be made aware of a leak, should one occur. preferably sooner than too late. The industry will complain that it isn't possible. However, there is science out there that states otherwise; it's just costly to do so.

Finally, in regards to safety there is one more circumstance that I am compelled to point out to you. Over two years ago I reported an exposed 6-7-foot section of the 80 plus year-old pipeline (known as the Mariner 1) in a streambed on the same property as mentioned above. This was originally reported to Ian Wood at PHMSA in October of 2016. He in turn reported it to ETP/Sunoco Logistics. Despite correspondence from ETP/Sunoco Logistics indicating that they were in the process of applying for a special permit from PA DEP to correct the situation (see enclosed) to date the situation remains as it was two years ago.

I truly hope that what I've provided here in words photos and an email lends support to Mr. Baker's case. I also hope that something positive come out of all this. Not only for those of us living within the impact and thermal zones of this pipeline but also for all the citizens of Pennsylvania. Thank you for your time and consideration.

Sincerely,

Kim Van Fleet

Kim Van Fleet
1705 McClures Gap Rd.
Carlisle PA 17015
717-440-6099

Date: Wed, 24 May 2017 14:28:44 +0000 [05/24/2017 10:28:44 AM EST]
From: Woods, Ian (PHMSA) <ian.woods@dot.gov>
To: kvanfleet@pa.net <kvanfleet@pa.net>
Cc: lynda@pscoalition.org <lynda@pscoalition.org>, Gentile, Karen (PHMSA) <karen.gentile@dot.gov>
Subject: Sunoco logistics exposed Mariner I pipeline

Hi Kim,

This is the latest information that I have received from Sunoco Logistics regarding their actions in responding to the exposed pipeline;

"Sunoco Pipeline's Engineering Group has been working with Er-Con Technologies to develop an engineering solution to address this erosion-exposed location.

Background investigation work is completed and a final engineering design is expected soon.

An environmental evaluation of the area is underway.

After conclusion of the environmental evaluation, the PA DEP permitting can begin.

General Timing for the overall project is as follows:

2Q2017 – Complete Engineering Design / Complete Environmental Evaluation / Submit PA DEP Permit application(s) needed to allow work

3Q2017 to 4Q2017 – Timing for progress and installation is uncertain due to timing for PA DEP Permits needed.

Once PA DEP permits are obtained we can begin work.

4Q2017 – Sunoco estimates this project should be completed sometime in 4Q2017 or sooner if PA DEP Permits come sooner."

It appears that they do have a plan in place and are working towards a remedy for the exposed pipeline. Unfortunately, due to the location of the exposure, the operator requires specific permits from the state before they start digging, excavating etc. I understand that this can be quite frustrating, as far as safety concerns and timeliness of operator response, but I see this quite frequently, especially where environmental issues are in question. I did have additional questions for the operator though that are still being addressed and when I hear back from them, I will forward the answers to you. Thank you for your time and your patience as it is greatly appreciated. Please don't hesitate to contact me if you have any other questions or concerns.

Regards,

Ian

Ian Woods

Community Liaison, Eastern Region

U.S. Department of Transportation

Pipeline and Hazardous Materials Safety Administration (PHMSA)

Outreach and Engagement Division

e-mail: ian.woods@dot.gov

Tel: 609-468-9478

December 9, 2018

Honorable Elizabeth H Barnes
Administrative Law Judge
P.O. Box 3265
Harrisburg PA 17105-3265

Dear Judge Barnes;

My name is Rolfe Blume, I live at 43 Wildwood Rd. In Cumberland County PA. I am one of many property owners who has the Mariner 2 pipeline crossing my land. In am submitting this letter in support of Wilmer J. Baker's case regarding the Mariner 2 pipeline (docket number C-2018-3004294). I would like to tell you what I have see on our property during the time they were constructing the pipeline.

Every day we watched the workers in the construction of this pipeline at our location. Periodically I would take it upon myself to take picture in order to document what they were doing just in case something goes wrong in the future. I discovered that the 16" pipe that they used was made in Greece and was was labeled as X70 which is minimum standard. The 20 inch pipe was labeled as X-65 which is below minimum standard. This is very concerning considering the products they plan to send through tjis line under high pressure.

As far as safety issue of concern to me and my wife; we would like some sort of an alarm system installed along this pipeline so that we at least might have a chance to evacuate if something goes wrong. Also there should be some sort of odorant put in these products like mercaptan so if nothing else we would be able to detect a leak near our home. Other than their generic pamphlet on their pipeline safety we have never received any type of information or notice on what we should actually do if the pipeline would leak. We know through communication with other folks that the danger zone is at least 1000 feet. My wife can't walk 10 feet let alone 1000 to reach a place of safety. Finally we have had no luck or communication of any kind with individuals directly associated with ETP/Sunoco Logistics. Instead any communication that has occurred was through Precision Pipeline's right of way agent.

Thank you for your time and consideration regarding these issues.

Sincerely,

Rolfe Blume
43 Wildwood Rd
Newville PA 17241
717-776-5237

To whom it may concern; 12/8/2018

I Jon Baker have attended several meetings of the Lower Frankford township. In these said meetings, an alarm system (for the mariner pipeline) was discussed. This is an important issue, seeing my family and I live within 1,000 feet of the line.

Sunoco set up a meeting in said township, and later failed to appear. This bothers me, after seeing all which has gone wrong with pipelines across the country.

Sincerely,

Jon Baker

(717) 258-5281)
(717) 526-8175

I Eric A. Robinson have been at several Township Meetings to Discuss several topics with Sunoco pipeline to which they did not show up. I saw Foreign Steel pipes at several locations - this I will testify to.

Sincerely Eric A. Robinson
411 west North St #3
Carlisle PA 17013

717-706-7964

SEPT 21 2018

Mike Chestnut with the NMFC as a Fire police officer.

We as a Fire police we are not ~~teacher~~ trained.

Mike Chestnut

Fire police lieutenant

May 2017

Various sections of coated and bare 16' and 20" inch pipeline laying in field at 1705 McClures Gap Rd. Carlisle, PA before installation.

1705 McClures Gap Rd. Carlisle PA 17015

Closer view of same bare pipeline segments.

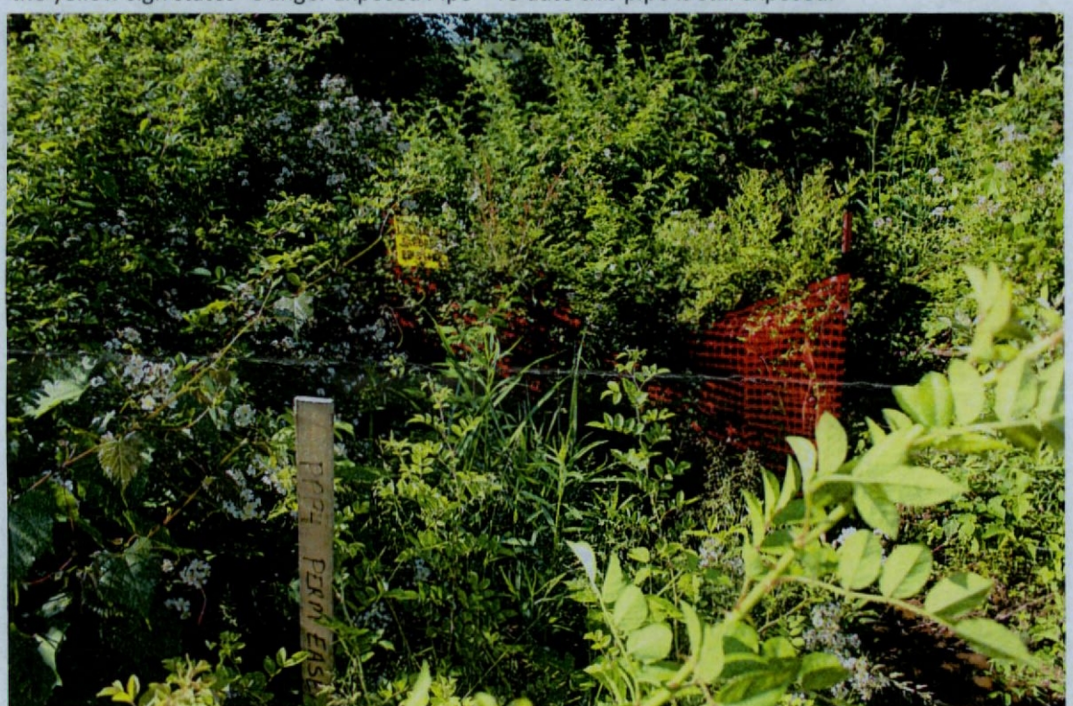
Exposed segment of Mariner 1

April 2016

1705 MaClays Gap Rd.
Carlisle PA 17015

January 2017 the company had someone put the snow fence and red warning tape around this during late fall of 2016

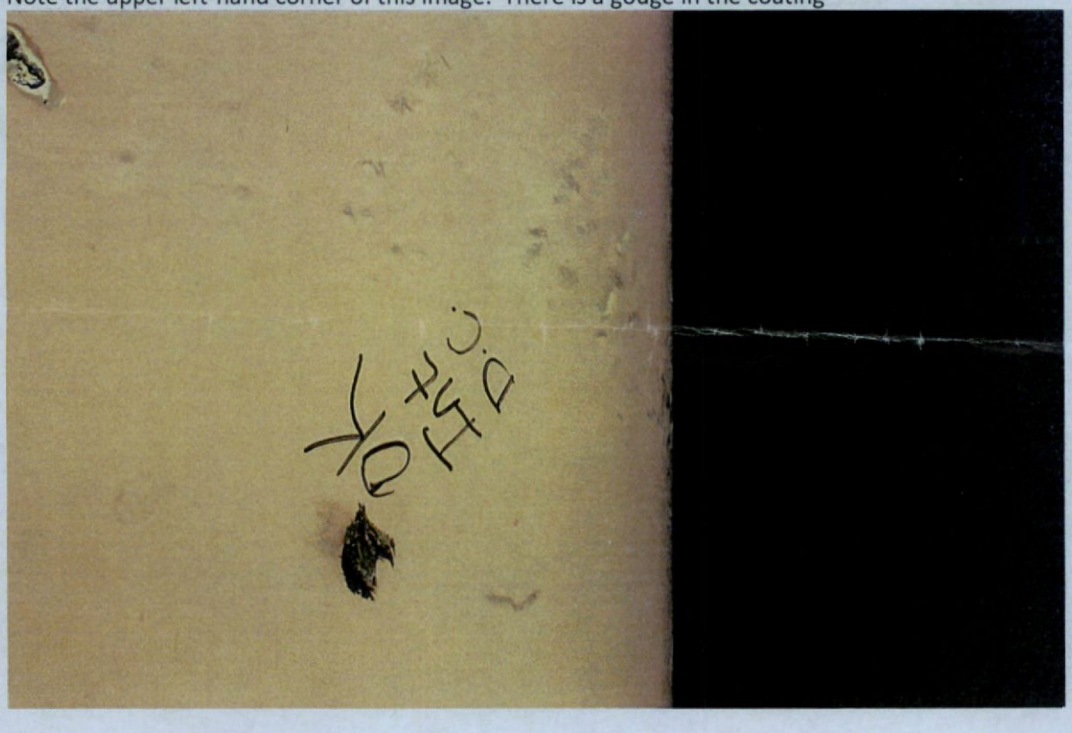
June 2018: When I took this photo in June the growth was too thick to get a close photo. Words on the yellow sign states "Danger Exposed Pipe" To date this pipe is still exposed.



Images taken **Sunday May 14, 2017** X70 16" Pipeline in open trench

1705 MacClures Gap Rd. Carlisle PA 17015

Note the upper left-hand corner of this image. There is a gouge in the coating



ENERGY TRANSFER

Energy Transfer Partners, a Texas-based energy company founded in 1995 as a small intrastate natural gas pipeline company, is now one of the largest and most diversified master limited partnerships in the United States. Strategically positioned in all of the major U.S. production basins, the company owns and operates a geographically diverse portfolio of energy assets, including midstream, intrastate and interstate transportation and storage assets. Energy Transfer operates approximately 86,000 miles of natural gas, crude oil, natural gas liquids and refined products pipelines and related facilities, including terminalling, storage, fractionation, blending and various acquisition and marketing assets in 38 states.

Approximately two-thirds of the natural gas and petroleum products we use every day are transported through underground pipelines – making them an essential part of the nation's infrastructure. Studies have confirmed that pipelines are the safest way to transport energy in the United States.

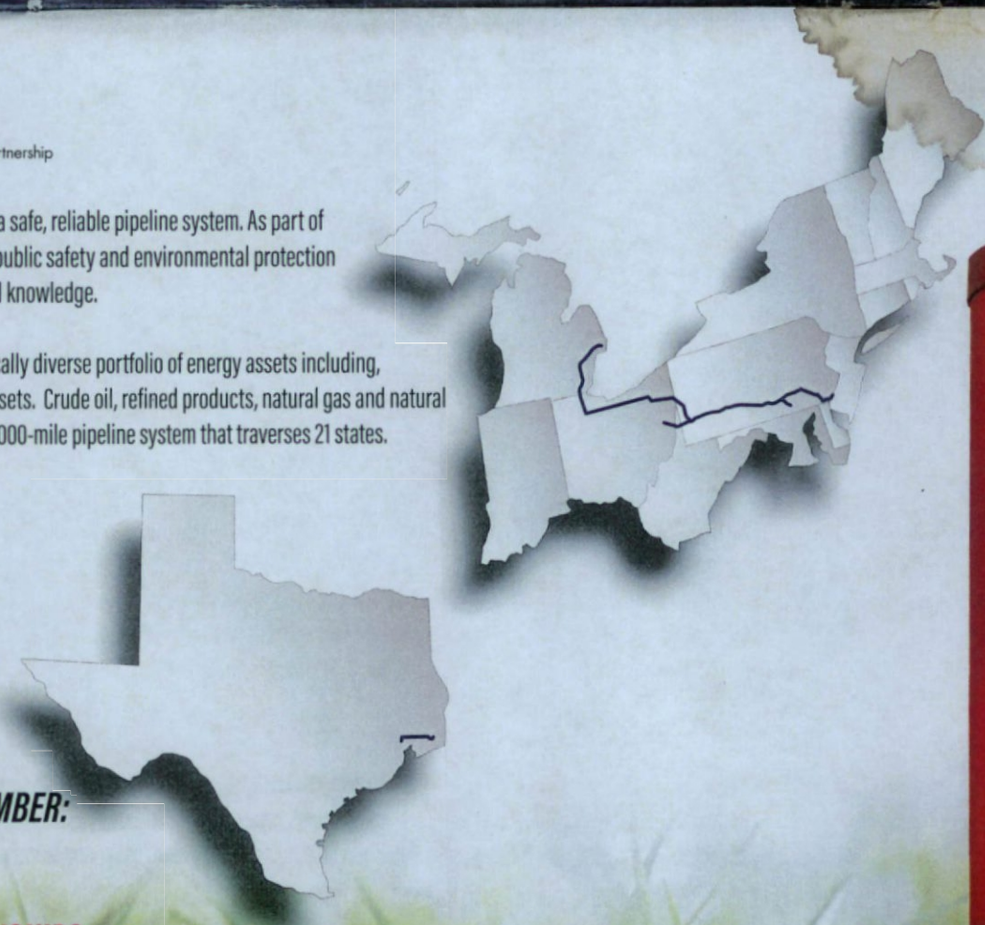
You are receiving this information because Energy Transfer, or one of its affiliates, may operate or maintain a pipeline in your community. We ask that you review the following important safety information, encourage you to share it with others and retain for future reference.

If you would like more information, please visit us at energytransfer.com or call our non-emergency number at 877-795-7271.

SUNOCO PIPELINE
An ENERGY TRANSFER Partnership

We are strongly committed to operating a safe, reliable pipeline system. As part of that commitment, we strive to enhance public safety and environmental protection through increased public awareness and knowledge.

Sunoco Pipeline operates a geographically diverse portfolio of energy assets including, pipelines, terminalling and marketing assets. Crude oil, refined products, natural gas and natural gas liquids are transported through a 12,000-mile pipeline system that traverses 21 states.



CONTACT KNOW RECOGNIZE RESPOND

24-HOUR EMERGENCY NUMBER:
800-786-7440

PRODUCT: NATURAL GAS LIQUIDS

COMUNÍQUESE INFÓRMESE RECONOZCA RESPONDA

SUNOCO PIPELINE
An ENERGY TRANSFER Partnership

Estamos muy comprometidos a operar un sistema de tuberías seguro y confiable. Como parte de nuestro compromiso, nos esforzamos por mejorar la seguridad del público y la protección del medio ambiente a través de un aumento del conocimiento y concientización del público.

Sunoco Pipeline opera una cartera de activos energéticos en diversos puntos geográficos que incluyen tuberías, distribución y comercialización. Petróleo crudo, productos refinados, gas natural y líquidos de gas natural son transportados a través de un sistema de tuberías de 12,000 millas que cruza 21 estados.

***TELÉFONO DE EMERGENCIA LAS 24 HORAS:* 800-786-7440**

PRODUCTO: LÍQUIDOS DE GAS NATURAL

CONTACT KNOW RECOGNIZE RESPOND

National Pipeline Mapping System

Everyone can contribute to safety and security by knowing where pipelines are in their community and recognizing unauthorized activity. To find out who operates transmission pipelines in your area, visit the National Pipeline Mapping System at www.npms.phmsa.dot.gov.

Pipeline Safety

Our pipelines are regularly tested and maintained using cleaning devices, diagnostic tools and cathodic protection. We perform regular patrols, both on the ground and in the air, along our routes to ensure the security and integrity of our lines. For the safety of our system and for the people around it, we monitor pipeline operations 24 hours a day, 365 days a year.

Special Protective Measures

Certain pipelines are designated as being in "High Consequence Areas" (HCA) due to their location in high population or environmentally sensitive areas. In accordance with regulations, we have developed and implemented a written Integrity Management Program that addresses the risks on certain pipeline segments. Baseline and periodic assessments are conducted to identify and evaluate potential threats to our pipelines. Any significant defects discovered are remediated and the company monitors program effectiveness so that modifications can be recognized and implemented.

Along the Right-of-Way

Rights-of-way provide a permanent, limited access to privately owned property to enable us to operate, inspect, repair, maintain and protect our pipeline. Rights-of-way must be kept free of structures and other obstructions. Property owners should not dig, plant, place or build anything on the right-of-way without first calling 811 and having our personnel mark the pipeline, stake the easement and explain our property development guidelines to you.

Sistema Nacional de Mapas de Tuberías

Todos pueden contribuir a la seguridad y protección sabiendo dónde se encuentran las tuberías en sus comunidades y reconociendo si hay actividad no autorizada. Para averiguar quién opera tuberías de transmisión en su zona, visite el Sistema Nacional de Mapas de Tuberías en www.npms.phmsa.dot.gov.

La seguridad de las tuberías

Realizamos pruebas y mantenimiento periódicos a nuestras tuberías usando dispositivos de limpieza, herramientas de diagnóstico y protección catódica. Patrullamos regularmente, tanto por tierra como por aire, nuestras rutas para garantizar la seguridad y la integridad de nuestras líneas. Para conservar la seguridad de nuestro sistema y de las personas a su alrededor, monitoreamos las operaciones de las tuberías las 24 horas del día, los 365 días del año.

Medidas especiales de protección

Ciertas tuberías son designadas como de "Áreas de altas consecuencias" (High Consequence Areas, HCA) debido a su ubicación en áreas de mucha población o con ecosistemas frágiles. En conformidad con las normas, hemos desarrollado e implementado por escrito un Programa de Gestión de Integridad que trata los riesgos de ciertos segmentos de tuberías. Se realizan evaluaciones iniciales y periódicas para identificar y analizar las amenazas potenciales a nuestras tuberías. Se corrigen todos los defectos significativos detectados y la compañía monitorea la eficacia del programa para que se puedan reconocer e implementar las modificaciones.

En el derecho de paso

El derecho de paso provee un acceso limitado y permanente a una propiedad privada para permitirnos operar, inspeccionar, reparar, mantener y proteger nuestra tubería. El derecho de paso se debe mantener libre de estructuras y otras obstrucciones. Los dueños de la propiedad no deben excavar, plantar, colocar o construir nada sobre el derecho de paso sin llamar primero al 811. Nuestro personal tiene que indicar la tubería, colocar estacas en el paso y explicarle a usted nuestras directivas para el desarrollo de la propiedad.

Pipelines are typically made of steel, covered with a protective coating and buried several feet underground. For your safety, markers are used to indicate the approximate location of pipelines. The markers contain the name of the pipeline operator and emergency contact information. Keep in mind that pipelines may not follow a straight line between markers nor do markers indicate the exact location and depth of the pipeline.

Leaks from pipelines are unusual, but we want you to know what to do in the unlikely event one occurs. The table below describes the types of products transported by our pipelines. Refer to the Contact page to find out which products may be transported in your area. You may be able to recognize a leak by the following signs:

	Natural Gas	Natural Gas Liquids (Butane, Ethane, Propane)	Petroleum (Crude Oil, Gasoline, Diesel, Jet Fuel, Kerosene)	Hydrogen Sulfide (H_2S)
By Sight	• Dust blowing from a hole in the ground. • Continuous bubbling in wet or flooded areas. • Dead or discolored vegetation in a green area. • Flames, if a leak has ignited.	• Dust blowing from a hole in the ground. • Continuous bubbling in wet or flooded areas. • Dead or discolored vegetation in a green area. • Flames, if a leak has ignited. • Ice around a leak. • Vapor cloud or mist.	• Pool of liquid on the ground. • Rainbow sheen on the water. • Continuous bubbling in wet or flooded areas. • Ice around a leak. • Vapor cloud or mist. • Flames, if a leak has ignited. • Dead or discolored vegetation in a green area.	• Dust blowing from a hole in the ground. • Continuous bubbling in wet or flooded areas. • Dead or discolored vegetation in a green area. • Flames, if a leak has ignited.
By Sound	• Blowing or hissing sound.	• Blowing or hissing sound.	• Blowing or hissing sound.	• Blowing or hissing sound.
By Smell	• An unusual smell or gaseous odor. • Odorless unless mercaptan, a chemical odorant, is added to give it a distinctive smell.	• An unusual smell or gaseous odor. • Odorless unless mercaptan, a chemical odorant, is added to give it a distinctive smell.	• An unusual smell or gaseous odor.	• Foul sulfur odor, similar to rotten eggs. • H_2S exposure may result in asphyxiation (suffocation) and prolonged exposure to low concentrations can deaden the sense of smell.

Important Safety Message

for your neighborhood

Sunoco Logistics

Sunoco Pipeline L.P.

Operator of the Inland and Harbor pipeline systems

24-Hour Emergency Number: 800-786-7440

Non-Emergency Number: 877-795-7271

Website: www.sunocologistics.com

You are receiving this brochure because Sunoco Pipeline L.P. operates a pipeline in your community. Our underground pipelines provide a safe and efficient method of transporting a variety of products, including crude oil, gasoline, diesel fuel, kerosene, heating oil, jet fuel, butane, ethane, propane, and natural gas.

Petroleum Pipelines In Your Community

There are almost 200,000 miles of petroleum pipelines in the United States. According to the U.S. Department of Transportation, pipelines are the most reliable and safest way to transport the large volume of natural gas and petroleum used in the United States. Pipelines transport two-thirds of all the crude oil and refined products in the United States. Pipelines are made of steel, covered with a protective coating and buried underground. They are tested and maintained through the use of cleaning devices, diagnostic tools, and cathodic protection. Since Americans consume over 700 million gallons of petroleum products per day, pipelines are an essential component of our nation's infrastructure.

Keeping you safe

Maintaining safe pipeline operations is critical in all areas where we operate. In high population and environmentally sensitive areas known as High Consequence Areas, we perform additional inspections and analyses as part of our Integrity Management Program (IMP). Additional information on our IMP efforts is available on our website: **www.sunocologistics.com**.

811 Know what's below. Call before you dig.

Always call 811 before you dig

One easy phone call to 811 starts the process to have your underground pipelines and utility lines marked. When you call 811 from anywhere in the country, your call will be routed to your state One Call Center, who will contact underground facility owners in the area. So you can dig safely, Sunoco Pipeline personnel will contact you if one of our pipelines are in the area of the planned excavation. More information about 811 is at **www.call811.com**.

How to know where pipelines are located

Most pipelines are underground, where they are more protected from the elements and minimize interference with surface uses. Even so, pipeline rights-of-way are clearly identified by pipeline markers along pipeline routes that identify the approximate—NOT EXACT—location of the pipeline. Every pipeline marker contains information identifying the company that operates the pipeline, the product transported, and a phone number that should be called in the event of an emergency. **Markers do not indicate pipeline burial depth, which will vary.** Markers are typically seen where a pipeline intersects a street, highway or railway. For any person to willfully deface, damage, remove, or destroy any pipeline marker is a federal crime.

Pipeline Markers

Pipeline Marker — This marker is the most common. It contains Sunoco Pipeline information, type of product, and our emergency contact number. Size, shape and color may vary.

Aerial Marker — These skyward facing markers are used by patrol planes that monitor pipeline routes.

Casing Vent Marker — This marker indicates that a pipeline (protected by a steel outer casing) passes beneath a nearby roadway, rail line or other crossing.

How would you recognize a pipeline leak?

While pipelines are the safest method of transporting the fuel and products we use every day, knowing how to recognize a pipeline leak is important. The following may indicate a pipeline leak:

- ***Sight:*** Liquid pools, discolored or abnormally dry soil/vegetation, continuous bubbling in wet or flooded areas, an oily sheen on water surfaces, and vaporous fogs or blowing dirt around a pipeline area can all be indicative of a pipeline leak. Dead or discolored plants in an otherwise healthy area of vegetation or frozen ground in warm weather are other possible signs.
- ***Sound:*** Volume can range from a quiet hissing to a loud roar depending on the size of the leak and pipeline system.
- ***Smell:*** An unusual smell, petroleum odor, or gaseous odor will sometimes accompany pipeline leaks.

What to do in the event a leak were to occur:

- Public safety and protecting the environment are the top priorities.
- ***Turn off*** any equipment and eliminate any ignition sources without risking injury.
- ***Leave the area*** by foot immediately. Try to direct any other bystanders to leave the area. Attempt to stay upwind.
- From a safe location, ***call 911*** or your local emergency response number and call the 24-hour emergency number for the pipeline operator. Provide your name, phone number, a brief description and location of the incident so a proper response can be initiated.

What not to do in the event a leak were to occur:

- ***DO NOT*** cause any open flame or other potential source of ignition such as an electrical switch, vehicle ignition, light a match, etc. Do not start motor vehicles or electrical equipment. Do not ring doorbells to notify others of the leak. Knock with your hand to avoid potential sparks from knockers.
- ***DO NOT*** come into direct contact with any escaping liquids or gas.
- ***DO NOT*** drive into a leak or vapor cloud while leaving the area.
- ***DO NOT*** attempt to operate any pipeline valves yourself. You may inadvertently route more product to the leak or cause a secondary incident.
- ***DO NOT*** attempt to extinguish a petroleum product fire. Wait for local firemen and other professionals trained to deal with such emergencies.

What to do in case of damaging/disturbing a pipeline

If you cause or witness even minor damage to a pipeline or its protective coating, please immediately notify the pipeline company. Even a small disturbance to a pipeline may cause a future leak. A gouge, scrape, dent or crease is cause enough for the company to inspect the damage and make repairs.

All damages to underground gas or hazardous liquid pipeline facilities are required by law to be reported to the operator. Excavators must notify the pipeline company immediately upon damaging a pipeline.

What is a right-of-way and can I build or dig on it?

Sunoco Pipeline works diligently to establish written agreements, or easements, with landowners to allow for ease of construction and maintenance when they cross private property. Rights-of-way (ROW) are often recognizable as corridors that are clear of trees, buildings or other structures except for the pipeline markers. A ROW may not have markers clearly present and may only be indicated by cleared corridors of land, except where farmland or crops exist. County Clerk or Recorder of Deeds offices may also have records of the pipeline easements.

Encroachments upon the pipeline right-of-way inhibit the pipeline operator's ability to reduce the chance of third-party damage, provide right-of-way surveillance and perform routine maintenance and required federal/state inspections. In order to perform these critical activities, pipeline maintenance personnel must be able to easily and safely access the pipeline right-of-way, as well as areas on either side of the pipeline. Keeping trees, shrubs, buildings, fences, structures and any other encroachments well away from the pipeline ensures that the pipeline integrity and safety are maintained.

Before any excavation project on or near Sunoco Pipeline's right-of-way, contact Sunoco Pipeline at 877-795-7271.

How can you help?

While incidents involving pipeline facilities are very rare, awareness of the location of the pipeline, the potential hazards, and what to do if a leak occurs can help to minimize the impact of a pipeline release. A leading cause of pipeline incidents is unauthorized excavation near pipelines. Pipeline operators are responsible for the safety and security of their respective pipelines. To help maintain the integrity of pipelines and their rights-of-way, it is essential that pipeline and facility neighbors protect against unauthorized excavations or other destructive activities. Here's what you can do to help:

- **Become familiar with the pipelines and pipeline facilities in the area (marker signs, fence signs at gated entrances, etc).**
- **Record the operator name, contact information and any pipeline information from nearby marker/facility signs and keep in a permanent location near the telephone.**
- **Be aware of any unusual or suspicious activities or unauthorized excavations taking place within or near the pipeline right-of-way or pipeline facility; report any such activities to the pipeline operators and CALL 911.**

Transmission Pipeline Mapping

The U.S. Department of Transportation's Office of Pipeline Safety has developed the National Pipeline Mapping System (NPMS) to provide information about gas transmission and liquid transmission operators and their pipelines. The NPMS website is searchable by zip code or by county and state, and can display a county map that is printable. For a list of pipeline operators with pipelines in your area and their contact information, go to **www.npms.phmsa.dot.gov/**.

For more information regarding pipeline safety and an overview of the pipeline industry please visit the following websites:

Pipeline Resources and Information

- 811 - **www.call811.com**
- Pipeline 101 - **www.pipeline101.com**
- Association of Oil Pipe Lines (AOPL) - **www.aopl.org**
- American Petroleum Institute (API) - **www.api.org**
- Common Ground Alliance (CGA) - **www.commongroundalliance.com**

Government/Regulatory Agencies

- Pipeline Hazardous Materials Safety Administration (PHMSA) - **phmsa.dot.gov**
- Department of Transportation (DOT) - **www.dot.gov**

To learn more about Sunoco Pipeline L.P., or to take our survey, visit our website at: **www.sunocologistics.com**

Sunoco Pipeline L.P. operates the Inland and Harbor pipeline systems.

PRODUCTS THAT MAY BE TRANSPORTED IN YOUR AREA

PRODUCT	LEAK TYPE	VAPORS
HIGHLY VOLATILE LIQUIDS [SUCH AS: BUTANE, PROPANE, ETHANE, E/P MIX]. ONLY IN GLOUCESTER COUNTY, NJ: NATURAL GAS	Gas	Initially heavier than air, spread along ground and may travel to source of ignition and flash back. Product is colorless, tasteless and odorless.
HEALTH HAZARDS	May be ignited by heat, sparks, or flames and may form combustible mixture with air. Vapors may cause dizziness or asphyxiation and be toxic if inhaled at high concentrations. Contact with gas or liquefied gas may cause burns, severe injury and/or frostbite.	
HAZARDOUS LIQUIDS [SUCH AS: CRUDE OIL, DIESEL FUEL, JET FUEL, GASOLINE, AND OTHER REFINED PRODUCTS]	Liquid	Initially heavier than air and spread along ground and collect in low or confined areas. Vapors may travel to source of ignition and flash back. Explosion hazards indoors, outdoors or in sewers.
HEALTH HAZARDS	Inhalation or contact with material may irritate or burn skin and eyes. Fire may produce irritating, corrosive and/or toxic gases. Vapors may cause dizziness or suffocation. Runoff from fire control or dilution water may cause pollution.	

LOS PRODUCTOS QUE TRANSPORTAMOS EN SU ÁREA

PRODUCTO	TIPO DE FUGA	VAPORES
LÍQUIDOS ALTAMENTE VOLÁTILES [TALES COMO: BUTANO, PROPANO, ETANO, E/T MIX]. SOLO EN GLOUCESTER COUNTY, NJ: GAS NATURAL	Gas	Inicialmente más pesado que el aire, se propaga en el suelo y puede viajar hasta fuentes de encendido y ocasionar retrocesos de llamas. El producto no tiene color, sabor ni olor.
RIESGOS A LA SALUD	Puede incendiarse con calor, chispas o con llamas y puede formar una mezcla inflamable con el aire. Los vapores pueden causar mareos o asfixia si estos son inhalados en concentraciones altas. El contacto con el gas o con el gas licuado puede causar quemaduras, lesiones graves y/o congelación.	
LIQUIDOS PELIGROSOS [TALES COMO: PETROLEO CRUDO, COMBUSTIBLE DIESEL, COMBUSTIBLE PARA JETS, GASOLINA Y OTROS PRODUCTOS REFINADOS]	Liquido	Inicialmente más pesado que el aire y se propaga en el suelo y se acumula en áreas bajas o confinadas. Los vapores pueden viajar hasta fuentes de encendido y ocasionar retrocesos de llamas. Los peligros de explosión ocurren adentro, afuera o en los alcantarillados.
RIESGOS A LA SALUD	La inhalación o el contacto con el material pueden irritar o quemar la piel y los ojos. El fuego puede producir gases irritantes, corrosivos y/ tóxicos. Los vapores pueden causar mareos o sofocación. La escorrentía que proviene del control del fuego o de las aguas de dilución puede causar contaminación.	

24-Hour Emergency Number: 800-786-7440

Sunoco Logistics
Sunoco Pipeline L.P.

Non-Emergency Number: 877-795-7271
Website: www.sunocologistics.com

Usted está recibiendo este folleto porque Sunoco Pipeline L.P. opera una línea de tuberías en su comunidad. Nuestras líneas de tuberías subterráneas proveen un método seguro y eficiente para el transporte de varios productos, incluyendo el petróleo crudo, la gasolina, el combustible diesel, querosén, aceite para calefacción, combustible para jets, butano, etano, propano y el gas natural.

Oleoductos en su comunidad

Existen más de 200,000 millas de líneas de petróleo en los Estados Unidos. De acuerdo al Departamento de Transporte de EE.UU., las líneas de tuberías son el método más fiable y seguro de transportar el gran volumen de gas natural y petróleo utilizado en los Estados Unidos. Los oleoductos transportan dos tercios de todo el petróleo crudo y productos refinados en los Estados Unidos. Están fabricados de acero, cubiertos con un revestimiento protector y enterados. Se someten a pruebas y se mantienen mediante el uso de aparatos de limpieza, herramienta de diagnóstico y protección catódica. Debido a que los estadounidenses consumen más de 700 millones de galone de productos de petróleo por día, los oleoductos son un componente esencial de la infraestructura de nuestra nación.

Manteniendo su seguridad

Mantener operaciones seguras de nuestros ductos es primordial en todas las áreas donde operamos. Nosotros ejecutamos inspecciones y análisis adicionales como parte de nuestro Programa de "Manejo de Integridad (IMP)" en áreas de alta población y en áreas ambientalmente sensibles establecidas cómo "Áreas de Altas Consecuencia." La información adicional sobre nuestros esfuerzos de IMP está disponible en nuestro sitio web: **www.sunocologistics.com**.

811
Determine lo que está **bajo tierra.**
Llama antes de excavar.

Siempre llame al 811 antes de excavar

Una facil llamada al numero 811 da comienzo al proceso para que marquen sus líneas de tuberías subterráneas y de servicios de utilidades. Cuando usted llama al 811 desde cualquier lugar del país, su llamada será transferida al Centro de One-Call (Una-Llamada) de su estado, quienes contactarán a los dueños de esas facilidades en su área.Para que usted pueda excavar con seguridad, un representante de Sunoco Pipeline se contactará con usted si una de nuestras líneas de tuberías se encuentra en el área donde se propone excavar. Usted puede encontrar más información acerca del 811 en el sitio web **www.call811.com**.

Como puede usted saber donde se encuentran localizadas las líneas de tuberías

La mayoría de las líneas de tuberías se encuentran debajo de la tierra, donde están mejor protegidas de los elementos y donde minimizan la interferencia con usos en la superficie. Aun así, los derechos de paso de las líneas de tubería están claramente identificados con marcadores de líneas de tuberías a lo largo de la ruta de la línea de tubería, los cuales identifican la ubicación aproximada—NO EXACTA—de la línea de tubería. Cada marcador de la línea de tubería contiene información que identifica la compañía que opera la línea de tubería, el producto transportado y un número de teléfono al cual se debe llamar en caso de una emergencia. **Los marcadores no indican la profundidad a la cual una línea de tubería se encuentra enterrada, la cual puede variar.** Los marcadores se pueden ver típicamente donde una línea de tubería atraviesa una calle, autopista o ferrocarril. Es un delito federal que una persona voluntariamente estropee, dañe, quite o destruya un marcador de una línea de tubería.

Marcador de Línea de Tubería

Marcador de Líneas de Tuberías — Este tipo de marcador es el más común. Contiene la información de Sunoco Pipeline, tipo de producto y nuestro número de contacto en caso de una emergencia. El tamaño, forma y color pueden variar.

Marcador Aéreo — Estos marcadores colocados mirando hacia el cielo son usados por los aviones de patrullas que monitorean las rutas de las líneas de tuberías.

Marcador de Tubos de Ventilación — Este marcador indica que una línea de tubería (protegida por un revestimiento de acero) pasa por debajo de una carretera, ferrocarril u otro cruce.

¿Qué es un derecho de paso y puedo yo construir o excavar en ellos?

Sunoco Pipeline trabaja diligentemente para establecer acuerdos escritos, o servidumbres con los dueños de terreno para así permitir y facilitar el acceso de construcción y mantenimiento cuando atravesamos esas propiedades privadas. Los derechos de paso usualmente se reconocen al ver caminos de terreno que están libres de árboles, edificios y de otras estructuras, con excepción de los marcadores de líneas de tuberías. Un derecho de paso puede que no tenga marcadores claramente visibles y puede que solo sean evidentes al ver solo los caminos de terreno libres, con excepción de granjas o tierras de cultivo.

Las oficinas del Secretario del Condado mantienen los registros de las servidumbres, los cuales son información pública. Ocupando espacio en los derechos de paso de las líneas de tubería impiden la habilidad del operador de la línea de tubería de poder reducir los daños por terceras personas, de proveer vigilancia en el derecho de paso y de hacer mantenimiento rutinario e inspecciones requeridas federalmente y estatalmente. Para poder ejecutar estas actividades críticas, el personal de mantenimiento de la línea de tubería necesita poder tener acceso de una manera fácil y segura al derecho de paso de la línea de tubería, y a las áreas a cada lado de la línea de tubería. Para poder conservar la integridad y seguridad en las líneas de tubería, se debe mantener distancia entre los árboles, arbustos, edificios, cercas, estructuras y otros impedimentos y las líneas de tubería.

Antes de cualquier proyecto de excavación cerca de los derechos de paso de Sunoco Pipeline al 877-795-7271.

¿Cómo usted puede ayudar?

Aunque incidentes que implican facilidades de oleoductos son muy raros, el conocimiento de la ubicación de la tubería, el potencial de los peligros, y qué hacer si una fuga ocurre puede ayudar a minimizar el impacto de una emisión de la tubería. La causa principal de incidentes en las tuberías subterráneas es excavaciones sin autorización. Los operadores de las líneas de tuberías son responsables por la seguridad de sus respectivas líneas de tuberías. Para poder conservar la integridad de las líneas de tuberías y de los derechos de paso, es esencial que los vecinos cerca de las facilidades y de las líneas de tuberías protejan contra excavaciones sin autorización y contra actividades destructivas. A continuación listamos lo que usted puede hacer para ayudar:

- **Familiarícese con las líneas de tuberías y las facilidades de líneas de tuberías en el área (señales de marcadores, señales en las cercas de los lugares cercados, etc.).**
- **Escriba el nombre del operador o compañía, información de contacto y cualquier otra información de la línea de tubería que se encuentran en las señales o marcadores cerca de usted y mantenga esa información cerca de su teléfono.**
- **Esté al tanto de cualquier actividad inusual o sospechosa o de excavaciones no autorizada tomando lugar dentro o cerca del derecho-de-paso de la línea de tuberías o instalación de línea de tuberías; informe cualquiera de estas actividades a los operadores de la línea de tuberías y LLAME AL 911.**

Mapas de Líneas de Tubería de Transmisión

La Oficina Estadounidense del Departamento de Transporte de Seguridad de Líneas de Tubería ha desarrollado el Sistema Nacional de Mapas de Líneas de Tubería ("NPMS" por sus iniciales en inglés) para proporcionar información acerca de los operadores de líneas de tubería y de sus mismas líneas de tuberías. El Sitio web de "NPMS" puede ser buscado en el internet usando el CÓDIGO POSTAL o el nombre del condado y estado, y en el mismo sitio usted puede adquirir un mapa del condado, el cual puede ser imprimido desde cualquier impresora personal. Para obtener una lista de los operadores con líneas de tuberías en su área y su información de cómo contactarlos, visite la página **www.npms.phmsa.dot.gov/**.

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¿Cómo puede usted reconocer una fuga en una línea de tuberías?

Aun cuando los oleoductos son el método más seguro de transportar el combustible y los productos que usamos todos los días, saber reconocer una fuga en la tubería es importante. Lo siguiente puede indicar una fuga en la tubería:

- ***Vista:*** Charcos de líquido, terreno/vegetación descolorida o anormalmente seca, burbujeo continuo en áreas mojadas o inundadas, un brillo aceitoso en la superficie del agua, niebla de vapor o tierra volando en el aire pueden ser muestras de que ocurre una fuga en la línea de tubería. Otras posibles indicacioes son la presencia de plantas descoloridas o muertas, o terreno congelado durante temporadas caliente.
- ***Sonido:*** El volumen del ruido puede ser desde un silbido silencioso hasta un rugido fuerte, dependiendo del tamaño de la fuga y del sistema de líneas de tuberías.
- ***Olor:*** Un olor inusual, olor a petróleo o un olor gaseoso puede a veces salir de una fuga en una línea de tuberías.

Lo que si debe hacer en el caso de que ocurriese una fuga:

- Las prioridades principales son la seguridad del público y la protección del medio ambiente.
- ***Apague*** cualquier equipo y elimine cualquier fuente de encendido sin ponerse en riesgo a sí mismo.
- Inmediatamente ***salga del área*** caminando. Trate de avisar a otras personas que se encuentren cerca para que se alejen del área. Intente mantenerse en contra del viento.
- Desde un lugar seguro, ***llame al 911*** o a su número local de respuesta a emergencias y llame al número de emergencias de 24-horas del operador de la línea de tuberías. Provee su nombre, número de teléfono, una breve descripción del incidente y la ubicación para así poder iniciar una respuesta apropiada.

Lo que no debe hacer en el caso de que ocurriese una fuga:

- ***NO*** cause ninguna llama ni use otras fuentes potenciales de encendido tales como los interruptores de electricidad, vehículos de ignición, fósforos, etc. No encienda ningún vehículo de motor ni equipo eléctrico. No toque ningún timbre de casa para notificar a las personas acerca de la fuga. Golpee la puerta con su mano para evitar crear chispas con la aldaba.
- ***NO*** se ponga en contacto directo al gas o líquido que se esté escapando.
- ***NO*** maneje hacia ninguna fuga o nube de vapor cuando esté saliendo del área.
- ***NO*** intente operar usted mismo ninguna válvula. Sin quererlo, usted podría dirigir más producto hacia la fuga o causar otro incidente.
- ***NO*** intente extinguir un fuego de productos de petróleo. Espere a que los bomberos locales y otros profesionales entrenados manejen la emergencia.

Lo que usted debe hacer en el caso que dañe/disturbe una línea de tubería

Si usted ocasiona o tiene conocimiento de algún daño, por más mínimo que sea, a una línea de tubería o a el revestimiento protector de la tubería, por favor notifique inmediatamente a la compañía de la línea de tubería. Cualquier daño pequeño a una línea de tubería, puede causar una fuga en el futuro. Un agujero, arañazo, dobladura o una arruga pueden ser una causa suficiente para que la compañía tenga que inspeccionar el daño y hacer reparaciones.

Esta requerido por la ley que todos los daños causados a tuberías subterráneas de gas o facilidades líquidas peligrosas sean reporteado a la compañía que opera esas tuberías. Los excavadores deben comunicarse con la compañía de esas tuberías inmediatamente al causar daños.

Mr. Wilmer Baker
430 Run Rd.
Carlisle, PA 17015

HARRISBURG PA 171

20 DEC 2018 PM 1 L

Pennsylvania Public Utility Commission
400 North Street, Second Floor
Harrisburg Pa 17120

ATTENTION: ROSEMARY CHIAVETTA

17120-9211 99