



U.S. Department of Transportation
Pipeline and Hazardous Materials
Safety Administration

1200 New Jersey Ave, S.E.
Washington, D.C. 20590

FEB 17 2010

VIA CERTIFIED MAIL [7009 1410 0000 2472 5019] AND FAX TO: (713) 495-7432

Richard D. Kinder
Chairman and Chief Executive Officer
Kinder Morgan Energy Partners, L.P.
One Allen Center
500 Dallas Street, Suite 1000
Houston, TX 77002

RE: CPF No. 3-2009-1024H

Dear Mr. Kinder:

Enclosed is the Corrective Action Order issued in the above-referenced case. It makes a hazardous facility finding and prescribes the necessary corrective actions that must be taken by Kinder Morgan to continue operating its pipeline. Service of this Corrective Action Order is complete upon satisfaction of the requirements in 49 C.F.R. § 190.5.

Thank you for your cooperation in this matter.

Sincerely,

Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

Enclosure

cc: Mr. Ivan Huntoon, Director, Central Region, PHMSA

Robert Hogfoss and Catherine D. Little, Hunton & Williams LLP,
Bank of America Plaza, Suite 4100,
600 Peachtree Street, NE, Atlanta, GA 30308-2216

**U.S. DEPARTMENT OF TRANSPORTATION
PIPELINE AND HAZARDOUS MATERIALS SAFETY ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, D.C. 20590**

In the Matter of)

Kinder Morgan Energy Partners,)
L.P.,)

Respondent.)
_____)

CPF No. 3-2009-1024H

CORRECTIVE ACTION ORDER

Purpose and Background

Kinder Morgan Energy Partners, L.P. (Respondent or Kinder Morgan) is the operator of the Rockies Express Pipeline East (REX East).¹ REX East is a newly-constructed, 638-mile-long interstate natural gas pipeline facility that runs from Audrain County, Missouri, to Monroe County, Ohio.²

On November 14, 2009, REX East experienced a failure in what is known as Spread I, a 31-mile-long section of 42-inch pipeline that runs through Muskingum and Perry Counties in southeastern Ohio. The failure occurred about one mile northeast of Philo, a village along the Muskingum River, caused a release of 127,046 thousand cubic feet of natural gas, and prompted the evacuation of several residences. There were no reports of any fires, injuries, or fatalities, and Kinder Morgan shutdown Spread I following the incident. The operating pressure of the affected segment at the time of the failure was 1197 psi, approximately 15 percent lower than its maximum allowable operating pressure (MAOP) of 1480 psi.³

¹ I note that Respondent requested in its filings that the operating entity of REX East be referred to as Kinder Morgan NatGas Operator LLC d/b/a REX East.

² REX East is the final leg in the Rockies Express Pipeline, a 1679-mile-long interstate natural gas pipeline system that originates in Rio Blanco County, Colorado, and includes the 328-mile-long Rockies Express-Entraga system and the 713-mile-long Rockies Express-West system.

³ The record indicates that Respondent performed an 8-hour hydrostatic pressure test of the segment in question, at 1977 psi, on October 2 and 3, 2009, and that the company subsequently conducted a post-test, construction-grade caliper tool run. I also note that Kinder Morgan has a special permit that allows the company to operate Spread I at 80 percent of its design pressure. Request to Increase the Operating Pressure of the Rockies Express Pipeline, East, PHMSA-2006-23998 (available at www.regulations.gov).

Respondent's preliminary investigation indicated that the cause of the failure was a fractured girth weld at Mile Post (MP) 575.5. That girth weld joined a 35.9-foot length of line pipe, manufactured by Welspun Gujarat Stahl Rohren Ltd. in Anjar, Gujarat India, with a 90-degree induction bend, manufactured by Shaw Naptech, Inc. in Clearfield, Utah. Kinder Morgan later removed a four-foot sample of pipe, including the failed girth weld, and arranged for a third-party metallurgical analysis by AnTech Laboratories Inc.

Respondent released the results of that analysis in Metallurgical Investigation Report NGI-09-46 (MI Report). The MI Report, dated November 25, 2009, indicated that the fracture in the girth weld was 80 inches in length and 1.5 inches in width at its maximum.⁴ The MI Report also stated that "[t]he fracture was primarily the result of severe longitudinal stresses and stress concentrations caused by poor joint fit up between . . . [the] linepipe [sic] and the segmented end of an induction bend."⁵ In particular, the MI Report noted that there was ovality in the 38-degree factory sag bend, that the bend appeared to be under stress, and that the external fusion-bonded epoxy coating contained circumferential cracks indicative of pipe deformation.⁶ The MI Report further noted misalignment in the pipe adjoined by the fractured girth weld, as well as indications of nonfusion and slag inclusions with lengths in excess of industry standards.⁷ Finally, the MI Report stated that the "segmented end of the induction was tapered on the inside by grinding[,] . . . [that] [t]he taper was curved rather than planer[,] and that the taper angle" exceeded industry standards.⁸

On December 21, 2009, the Director, Central Region, Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS), issued Kinder Morgan a Notice of Proposed Corrective Action Order (Notice). In accordance with 49 U.S.C. § 60112 and 49 C.F.R. § 190.233, the Notice included a statement of OPS's preliminary findings and identified the relevant statutory considerations that formed the basis for a proposed hazardous facility finding. The Notice also proposed that Respondent take certain corrective measures to protect the public, property, and the environment from the potential hazards associated with operating Spread I.

On December 24, 2009, Kinder Morgan provided the Director, Central Region, PHMSA (Director), with a revised Return to Service Plan (RSP) for Spread I.⁹ On December 31, 2009, Respondent submitted a timely response to the Notice (Response). In that Response, the company described the corrective measures it had taken since the failure, stated that those actions had rendered this proceeding moot, and requested that the Notice be withdrawn. Kinder

⁴ MI Report at 2-3.

⁵ MI Report at 1.

⁶ MI Report at 5-6.

⁷ MI Report at 8-9.

⁸ MI Report at 9.

⁹ Respondent submitted its original RSP for Spread I on December 10, 2009.

Morgan further argued, in the alternative, that the facts and law did not support a finding that Spread I is or would be a hazardous facility. Respondent also requested an informal hearing, but stated that any such proceeding should be stayed pending further discussions between the parties.

By letter dated January 12, 2010, the presiding official in this proceeding notified Kinder Morgan that the hearing in this matter would be held on January 29, 2010.¹⁰ On that same date, Respondent provided the Director with another revised RSP, and eight days later, the Director notified Kinder Morgan that he had reviewed and would not object to the restart of Spread I under the terms and conditions specified in that RSP. On January 22, 2010, Kinder Morgan renewed its requests for withdrawal of the Notice and a stay of the upcoming hearing. The presiding official, by letter dated January 25, 2010, denied the company's request and indicated that the hearing would be held as scheduled.

On January 29, 2010, the hearing convened at the Central Region Office in Kansas City, Missouri. Ivan Huntoon, the Central Region Director, Gery Bauman, an OPS inspector and welding expert, and Alan Mayberry, the Director of Engineering and Emergency Support, PHMSA, appeared on behalf of OPS, with Larry White, Senior Attorney, Office of Chief Counsel, PHMSA, serving as counsel for the Central Region. Dwayne Burton, Vice President, Gas Pipeline Operations & Engineering, appeared on behalf of Kinder Morgan, with Robert Hogfoss and Catherine Little, both of Huntoon & Williams, and Shelia R. Tweed, Vice President, Deputy General Counsel, Kinder Morgan, serving as counsel for Respondent.

On February 3, 2010, Respondent submitted a timely Post-Hearing Brief (Brief). In that Brief, Kinder Morgan argued that the facts and law did not support a hazardous facility finding, that the company had nearly completed all of the terms in the RSP, and that public policy would not be served by issuing a corrective action order (CAO).¹¹

Jurisdiction

In its Response and at the hearing, Kinder Morgan argued that this proceeding is moot. Respondent, the moving party, bears the burden of establishing mootness¹²—i.e., that “[t]he controversy between the parties has thus clearly ceased to be ‘definite and concrete’ and no longer ‘touch(es) the legal relations of parties having adverse legal interests[,]’”¹³ and that it is

¹⁰ On January 12, 2010, PHMSA received a letter from Ultra Resources, Inc. (Ultra), requesting that the hearing be made open to the public under section 554(c) of the Administrative Procedure Act (APA), 5 U.S.C. § 554(c). I denied that request two days later, finding that section 554(c) of the APA does not apply to the informal proceedings of this agency. I further denied Ultra's request to attend the hearing under section 555(b), a provision that only allows interested persons to appear before an agency “[s]o far as the orderly conduct of the public business permits . . .” 5 U.S.C. § 555(b).

¹¹ In its Brief, Respondent did not present any further argument on the alleged mootness of this proceeding.

¹² *Friends of the Earth v. Laidlaw*, 528 U.S. 167, 189-90 (2000).

¹³ *DeFunis v. Odegaard*, 416 U.S. 312, 317 (1974) (per curiam) (quoting *Aetna Life Ins. Co. v. Haworth*, 300 U.S. 227, 240-41 (1937))

“impossible . . . to grant ‘any effectual relief whatever’[.]”¹⁴ Moreover, that is a “heavy burden” where, as here, the allegation of mootness arises from the moving party’s own voluntary conduct.¹⁵ Under these circumstances, Kinder Morgan “bears the formidable burden of showing that it is absolutely clear the allegedly wrongful behavior could not reasonably be expected to recur[.]”¹⁶ and that “interim relief or events have completely and irrevocably eradicated the effects of the alleged violation.”¹⁷ Only “when both conditions are satisfied . . . may [it] be said that the case is moot because neither party has a legally cognizable interest in the final determination of the underlying questions of fact and law.”¹⁸

For example, in *United States v. W.T. Grant Company*, the Supreme Court held that a defendant’s resignation as director of three large competitor companies “[s]oon after the complaints were filed” did not render moot the federal government’s civil action to enjoin his alleged violations of the Clayton Act.¹⁹ In so holding, the Court stated:

Both sides agree to the abstract proposition that voluntary cessation of allegedly illegal conduct does not deprive the tribunal of power to hear and determine the case, i.e., does not make the case moot. A controversy may remain to be settled in such circumstances, e.g., a dispute over the legality of the challenged practices. The defendant is free to return to his old ways. This, together with a public interest in having the legality of the practices settled, militates against a mootness conclusion. For to say that the case has become moot means that the defendant is entitled to a dismissal as a matter of right. The courts have rightly refused to grant defendants such a powerful weapon against public law enforcement.²⁰

As in the above case, I am not persuaded that Respondent has met its “heavy” and “formidable” burden of showing that this proceeding is moot. First, it is not “absolutely clear” that a failure in Spread I as a result of a girth weld defect “could not reasonably be expected recur.”²¹ Kinder Morgan is still the operator of Spread I, the pipeline segment in question still transports natural gas (albeit under certain voluntary restrictions), it still has girth welds that adjoin line pipe with induction bends, and Respondent appears to have used the same written procedures to install all

¹⁴ *Church of Scientology of California v. U.S.*, 506 U.S. 9, 12 (1992) (quoting *Mills v. Green*, 159 U.S. 651, 653 (1895)).

¹⁵ *Friends of the Earth*, 528 U.S. at 189-190 (citing *United States v. Concentrated Phosphate Export Assn.*, 393 U.S. 199 (1968); *City of Mesquite v. Aladdin's Castle, Inc.*, 455 U.S. 283, 289 (1982)).

¹⁶ 528 U.S. at 190.

¹⁷ *Los Angeles County v. Davis*, 440 U.S. 625, 631 (1979).

¹⁸ 440 U.S. at 631.

¹⁹ *U.S. v. W.T. Grant Co.*, 345 U.S. 629, 630-31 (1953).

²⁰ 345 U.S. at 632 (citations omitted).

²¹ 528 U.S. at 190.

of those girth welds—i.e., whether constructed prior or subsequent to the November 14, 2009 failure. Moreover, the record does not contain a conclusive determination on the potential structural causes of the November 14, 2009 failure or the integrity of the company’s corrective actions. Indeed, while Kinder Morgan made certain statements about the results of its finite element analysis (FEA) of the failed girth weld and a third-party’s examination of the replacement girth welds it recently installed on Spread I, the company did not introduce any expert testimony or final written reports to corroborate those representations. For these reasons, Respondent has not “show[n] that it is *absolutely clear* the allegedly wrongful behavior”—i.e., a failure in Spread I as a result of a girth weld defect (or other related construction or structural defect)—“could not reasonably be expected to recur.”²²

Furthermore, Respondent has not established that “interim relief or events have completely and irrevocably eradicated the effects of the alleged violation.”²³ The company’s primary basis for alleging mootness is its recent removal and replacement of the segmented induction bends and girth welds in Spread I. However, those remedial actions—which are themselves a direct result of the original failure—require further monitoring to confirm their effectiveness under actual operating conditions, particularly during any subsequent increases in throughput or changes in soil condition, such as thawing, that might cause additional settling, loading, or movement on the pipeline. Furthermore, Kinder Morgan has not shown that Spread I can be operated safely without restrictions. Indeed, by the terms of its own RSP, the operating pressure of that pipeline segment cannot exceed 1197 psi until certain additional measures are implemented, including an analysis of the data from an as-yet-uncompleted high resolution caliper tool run. Even with these measures, the RSP calls for a staged increase if no additional threats emerge to Spread I’s original MAOP. Thus, Kinder Morgan has not shown that its actions “have *completely and irrevocably* eradicated the effects” of the November 14, 2009 failure in Spread I.

Finally, all of the corrective actions taken by Respondent have been voluntary, and the company is under no legal obligation to continue pursuing them in the future. Specifically, the terms of the RSP are not legally binding on Kinder Morgan. To the contrary, the RSP is simply an acknowledgement of Respondent’s past actions and a promise on its part to take certain actions in the future. Those promises only become binding, and enforceable, if included in a final order, consent agreement, or equivalent kind of agency action. Kinder Morgan’s submission and the Director’s conditional approval of the RSP do not make it “*impossible*” for me “to grant ‘any effectual relief whatever’ [.]”²⁴

For these reasons, I find that Respondent has not met its “heavy” and “formidable” burden of showing that this proceeding is moot.

²² *Id.* (italics added)

²³ 440 U.S. at 631 (italics added).

²⁴ *Church of Scientology of California*, 506 U.S. at 12.

FINDING OF HAZARDOUS FACILITY

The Notice alleged that Spread I is or would be a hazardous facility under 49 U.S.C. § 60112 and 49 C.F.R. § 190.233. In particular, the Notice recited the events surrounding the November 14, 2009 failure, including the results of the preliminary inspection and the actions taken by Kinder Morgan to remove and analyze the affected segment of pipe. The Notice also recited the key findings in Respondent's MI Report—i.e., that a caliper tool survey and subsequent diameter measurements showed ovality in the sag bend, indicating that the field-modified induction bend appeared to be under stress; that the pipe coating contained circumferential cracks indicative of pipe deformation; that pipe-body cross sections through the fracture revealed deformation, indicating that the tensile strength was exceeded; that indications existed of poor joint fit-up and misalignment of the field-cut segmented induction bend; and that the weld joint was prepared using a taper angle that exceeded the maximum internal taper allowed by the applicable industry standard and Kinder Morgan's own procedures.²⁵ The Notice then stated:

After evaluating the foregoing preliminary findings of fact and considering the pipe materials involved, the manufacturer, the construction practices used, the hazardous nature of the product transported, the pressure required for transporting such product, the accessibility of the pipeline route to the public, the information contained in [the MI Report], and the ongoing investigation to determine the root cause of the failure, it appears that continued operation of Spread I from MP 547.9 to MP 578.8 without corrective measures would be hazardous to life, property, and the environment.

In its Response, Kinder Morgan argued that there was no factual or legal basis for finding that Spread I is a hazardous facility or issuing a CAO. Specifically, Respondent noted that Spread I was immediately shutdown after the failure, that the failure resulted in no injuries or environmental harm, and that “there was and is no ‘hazard to life, property or the environment,’ which is required in order for a CAO to be issued.” Kinder Morgan also noted that it had provided the Director with a preliminary RSP on December 10, 2009, and a revised RSP on December 24, 2009, and that it had begun implementing the terms of the most recent RSP with the Director's approval. Respondent further noted that the revised RSP complied with and exceeded the terms in the proposed CAO, and that the company had fully cooperated with PHMSA at all times in this proceeding.

At the hearing, OPS's primary witness was Gery Bauman, a PHMSA inspector and expert in the field of welding. Mr. Bauman testified that he had performed several audits of Spread I for OPS, and that the first of those audits had occurred in June 2009. He said that during that initial inspection, he had observed Kinder Morgan welders who were not following the company's procedures, and that he had notified Respondent's supervisory personnel of those observations. Mr. Bauman also testified that he had observed inappropriate construction practices during a subsequent audit, including extraordinary methods by tie-in foremen and crews to fit line pipe into ditches, and that he had notified Respondent's senior project engineer of those observations

²⁵ The Notice also stated that a hydrostatic pressure test and an inline inspection of Spread I had occurred after installation, but prior to a rough-clean up of the right-of-way with heavy equipment.

as well. Mr. Bauman stated that he received assurances from Kinder Morgan's senior project engineer that appropriate remedial actions would be taken to address these problems. He also stated that, in his opinion, the construction practices he witnessed during these audits of Spread I were indicative of the methods used by the field personnel who installed the failed girth weld.²⁶

Mr. Bauman also described other problems with Spread I that came to light after the failure. In particular, he stated that Kinder Morgan had removed certain cut fittings as a corrective measure, and that an examination of those fittings showed that its welders were not following the company's procedures or accepted industry practices. He also testified that an analysis of those fittings showed that Kinder Morgan's personnel had not used best-quality nondestructive testing practices in examining field girth welds for possible defects. Mr. Bauman reiterated that these findings confirmed his prior observations about the unsound construction practices Respondent used in installing Spread I.²⁷

Mr. Bauman also stated that the corrective measures in the RSP and CAO were needed to mitigate the hazards associated with these unsound construction practices. Specifically, he noted that Kinder Morgan had detected areas of ovality in the pipe in Spread I during a low-resolution caliper tool run on January 5, 2010, but that Respondent had not yet examined all of those areas. He also stated that Kinder Morgan had scheduled a high-resolution caliper tool run for Spread I, which required that the line be placed back in service, but cautioned that a comprehensive analysis of those results would be required to identify any other areas of potential stress on the pipe, that "prove-up" digs would be needed to corroborate that information, and that a comparative study of the results from similar tool runs on Spreads J and K would also be necessary, as those lines were built using similar construction practices, but with different personnel.²⁸

Though counsel presented extensive legal argument at the hearing, Respondent did not offer any witnesses or introduce any evidence to rebut Mr. Bauman's testimony. Instead, Kinder Morgan argued, both during the hearing and in its subsequent Brief, that "[t]here is no factual or legal basis to make a 'hazardous facility' finding at this point in time." Specifically, Respondent stated that the preliminary nature of the findings in the Notice showed that facts did not support such a finding, either at that time or at the present time. Those actions, Kinder Morgan observed, included performing a root cause analysis, a metallurgical analysis, and two radiographic weld analyses of all induction bends, including an evaluation and repair of anomalies; identifying 12 excavations for further weld examinations; removing three induction bends and associated welds from the former locations; and removing and replacing 49 field-to-pipe-trimmed induction bend

²⁶ Mr. Bauman further testified that he observed similar instances of improper construction practices during his audits of Spreads J and K, that he notified Kinder Morgan's senior project engineer of his concerns, and that he received assurances from the company that appropriate remedial actions would be taken. Mr. Bauman stated that, in his opinion, the girth weld failure on Spread I was consistent with his observations of the construction practices used on Spreads J and K as well.

²⁷ Alan Mayberry also briefly testified for OPS that its investigation indicated that events on the right-of-way for Spread I, particularly rough-grading work, may have contributed to the failure.

²⁸ The findings and terms in this CAO are limited to Spread I.

girth welds. In Kinder Morgan's view, these actions had produced a record that was far more developed than at the time of the Notice, established a clear cause for the failure, and showed that no other parts of Spread I were at risk of failing as a result of girth-weld defects.

Respondent further argued that "[i]t would be highly unusual, and not consistent with law, for PHMSA to issue a CAO with a 'hazardous facility' finding" under these circumstances—i.e., "for a line (a) upon which only a potential hazard was identified, and that potential has been removed, and (b) that the Agency has already approved to return to service." In particular, Kinder Morgan noted that Spread I was back in service, that the company had begun implementing the RSP, and that the only actions needed to complete the RSP were the high-resolution caliper tool run, a review of the resulting data, and four weeks of precautionary ground patrol inspections. Respondent also addressed Mr. Bauman's testimony regarding the ovalities detected during its recent low-resolution caliper tool run. Specifically, Kinder Morgan conceded that those findings would need to be confirmed in a high-resolution caliper tool run, but cautioned "that ovalities in large diameter pipelines are to be expected when a low resolution caliper tool run is conducted under low pressure, and, by themselves, are not cause for concern."

Finally, Respondent argued that a CAO should not be issued as a matter of public policy. In particular, Kinder Morgan stated that the Notice acknowledged that there was not a sufficient basis for making a "hazardous facility" finding as of December 24, 2009, that the company had subsequently cooperated with PHMSA and taken appropriate corrective measures, and that PHMSA "should encourage [such] cooperation by the regulated community" and not "punish[] [a company] for being cooperative and proactive, especially when there are no regulatory violations at issue."

Discussion

As a preliminary matter, I agree with Kinder Morgan that some of the factors cited in the Notice do not support a hazardous facility finding at this time. For example, though the MI Report noted the presence of ovality in the segmented induction bend, OPS did not argue at the hearing that "the pipe materials involved" or "the manufacturer" caused or contributed to the November 14, 2009 girth weld failure. Moreover, there is no other conclusive evidence in the record that either of those factors currently poses a hazard to the operation of Spread I.²⁹ Accordingly, I find that there is no basis at this time for finding that Spread I is or would be a hazardous facility based on these two factors—i.e., the pipe materials involved or the manufacturer.

However, having considered the documents in the record and the testimony presented at the hearing, I am persuaded that the other factors listed in the Notice support such a finding. First, the practices Kinder Morgan used in constructing Spread I show that the operation of that "facility is or would be hazardous to life, property, or the environment[.]" In particular, the MI Report found that improper welding caused the girth weld failure, and Mr. Bauman testified that he observed Respondent's field personnel engaged in improper construction practices, particularly with respect to welding, during his audits of Spread I. Mr. Bauman also testified that Kinder Morgan's examination of other welds removed since the failure confirm that the company's field personnel failed to follow proper construction practices when installing and

²⁹ I note that the final results of Respondent's FEA might affect this determination.

examining additional welds on Spread I for defects. Respondent did not rebut any of these statements at the hearing or in its Brief, and I find that Mr. Bauman's testimony about the frequency of Kinder Morgan's improper construction practices is credible and entitled to substantial weight.³⁰

Second, the potential hazards associated with those unsound construction practices have not yet been fully resolved. For example, Respondent's low-resolution caliper tool run identified other areas of concern in Spread I, and the full extent of those problems cannot be confirmed until Kinder Morgan completes a high-resolution caliper tool run and resulting data analyses.³¹ Moreover, another high-resolution caliper tool run on Spread I will be required in the spring to determine whether additional settling or movement of the pipeline is creating stress on other girth welds. Finally, the excavation sites dug by Respondent as a corrective measure must be monitored in the near term, through ground patrols, to ensure that any additional loading and earth movement will not threaten the integrity of the pipe in Spread I.

Furthermore, the "investigation to determine the root cause of the failure" is still "ongoing[.]" In particular, the Director has not yet received Kinder Morgan's final written report on the FEA of the failed girth weld. That report must be reviewed to verify the accuracy of its assumptions, fully understand the structural causes of the November 14, 2009 incident, and determine whether there are other potential areas of vulnerability in Spread I.

In addition, the hazardous nature of and pressure required to transport the product at issue also support a hazardous facility finding. Though substantially reduced or even eliminated by complying with the Pipeline Safety Laws and Regulations, there are still hazards associated with the transportation of natural gas by pipeline.³² Moreover, those hazards are more acute in the circumstances presented here—i.e., where an operator used improper construction practices to build a pipeline facility that failed shortly after its commissioning. Likewise, the pressure involved in the transportation of this product also supports a hazardous facility—i.e., where a pipeline fails while operating at pressures significantly lower than its original hydrostatic test pressure and MAOP.

The information contained in the MI Report, when combined with the additional information obtained following the failure, supports a hazardous facility finding as well. In particular, the MI Report identified a number of issues, such as improper welding and inadequate radiographs of

³⁰ See *Federal Trade Commission v. Pacific States Paper Trade Association*, 273 U.S. 52, 63 (1927) ("The weight to be given to the facts and circumstances admitted as well as the inferences reasonably to be drawn from them is for the Commission.").

³¹ Respondent's contention that the results of the low-resolution tool run are insignificant is not persuasive. I am not willing to make assumptions about the integrity of a pipeline that recently experienced a construction-related failure, particularly one that occurred within weeks of a pipeline's commissioning and while operating at a reduced pressure, based on generalities about what may, or may not, be a cause for concern in most cases.

³² See H.R. REP. NO. 1390 (1968), reprinted in 1968 U.S.C.C.A.N. 3223, 3223-3233 (describing the purpose of and need for the Natural Gas Pipeline Safety Act of 1968, Pub. L. No. 90-481, 82 Stat. 720 (1968), reprinted in 1968 U.S.C.C.A.N. 827-838 (currently codified with amendments at 49 U.S.C. §§ 60101 et. seq.)).

field girth welds, that Kinder Morgan also discovered and further corroborated during the implementation of the RSP.

With regard to Respondent's other contentions, I agree that Kinder Morgan has taken significant remedial action in response to the November 14 accident and has cooperated with PHMSA throughout this proceeding. Such actions do not, however, serve to eliminate the hazards associated with the operation of Spread I and, in any event, are fully reflected in the modified terms of the CAO. Hopefully, Respondent's prior actions and continued cooperation will enable it to promptly comply with those terms and bring this matter to closure.

Finally, I reject Kinder Morgan's argument that a hazardous facility finding or issuance of a CAO is not in the interests of public policy. Contrary to Respondent's statements, the purpose of those actions is not to "punish" an operator who has experienced a pipeline failure. Rather, their purpose is to identify those pipeline facilities that are or would be a hazard, and to require that the operator of those facilities take appropriate action to abate or correct that condition. Given the evidence in this case—and the fact that the public interest is served if a newly-commissioned pipeline, particularly one that experienced a construction-related failure, is operated safely—I find that exercise of that authority here is appropriate.

For these reasons, I find that the operation of Spread I "is or would be hazardous to life, property, or the environment" without corrective action.

CORRECTIVE ACTION ORDER

Pursuant to 49 U.S.C. § 60112 and 49 C.F.R. § 190.233, the Director proposed in the Notice that Kinder Morgan take certain corrective actions to ensure that the operation of Spread I from MP 547.9 to MP 578.8 was not hazardous to life, property, or the environment. The record indicates that Kinder Morgan has completed some of those actions and that certain others are no longer necessary. For example, Respondent has already submitted an RSP and arranged for the restart of Spread I under terms deemed satisfactory to the Director. Similarly, Kinder Morgan has already taken action to remove and replace the field-cut segmented induction bends and associated girth welds on Spread I. Nonetheless, there are other aspects of the proposed CAO that remain outstanding. These include, but are not limited to, Respondent's submission of a final report on the FEA of the failed girth weld, performance of a high-resolution caliper tool run and analysis of the resulting data, execution of ground patrols to detect any loading or earth movement, and submission of quarterly reports and documentation. Accordingly, I find that the following corrective actions are necessary to ensure that the operation of Spread I from MP 547.9 to MP 578.8 is not hazardous to life, property, or the environment:

1. Respondent must comply with the terms and conditions of the Return to Service Plan (RSP) as submitted to OPS on January 12, 2010, reviewed and conditionally approved by the Director on January 25, 2010, and under implementation at the time of the January 29, 2010 hearing in this matter.

2. Respondent must prepare and submit to the Director, Central Region, OPS, a final written report on the finite element analysis (FEA) of the joint configuration and weld defect interaction associated with the girth weld that failed on November 14, 2009. Respondent must also complete and submit to the Director written reports on any supplemental FEA analyses, using information gathered by Respondent during the execution of the RSP. The FEA analysis should include worst-case joint geometry of approximately 3/8-inch maximum external misalignment and weld defects that were found during the recent investigation and that do not meet API 1104 standards for weld quality.
3. Respondent must perform a high-resolution caliper tool run of Spread I within 30 days of the issuance of this Order. Respondent must provide the Director with documentation describing and analyzing the results of that tool run within 60 days of its completion. Respondent must perform another high-resolution caliper tool run between April 1, 2010, and June 1, 2010. Respondent must provide the Director with documentation describing and analyzing the results of that tool run, including a comparative analysis of the results of the prior tool run, within 60 days of its completion.
4. Within 30 days from the date of this Order, Respondent must provide the Director with a written schedule and plan for completing a geospatial tool run of Spread I or, in the alternative, a written statement explaining why a geospatial tool run is not required to ensure the safe operation of Spread I. The Director will review these written materials and notify Respondent whether a geospatial tool run is required and, if so, under what terms and conditions.
5. Respondent must perform weekly ground patrols of Spread I during the execution of the RSP to detect any loading or earth movement and must notify the Director immediately if either of these conditions is detected. These ground patrols must continue until the Director issues a written notice of termination. Respondent may not use high-speed aerial patrols to satisfy this requirement.
6. Respondent must conduct an instrumented leak survey of Spread I at 1197 psi and provide the Director with documentation describing and analyzing the results of that survey.
7. Respondent must provide the Director with weekly updates on the implementation of the RSP. These updates must occur until the Director states otherwise in writing.
8. Respondent must take all steps necessary to ensure that the operating pressure of Spread I does not exceed 1197 psi. Those steps include, but are not limited to, setting all affected compressor stations and pressure control devices to comply with the foregoing pressure restriction.
9. Respondent must obtain prior written approval from the Director before allowing the operating pressure of Spread I to exceed 1197 psi or to resume the pressure limits in place under its pre-failure conditions.

10. Within 30 days of the issuance of this Order, Respondent must submit a remedial work plan to the Director for approval. That work plan must list all necessary corrective actions to ensure the safe operation of Spread I and address all known or suspected factors that caused or contributed to the November 14, 2009 failure. In particular, the work plan must include the following elements:
 - a. The integration of the information developed from the actions required by this Corrective Action Order, including: construction records; hydrostatic testing records; previous failure investigations; leak history; repair records; internal inspections; operating procedures; and other relevant operating data, for the purpose of performing a comprehensive root cause analysis of the available information associated with the factors that caused or contributed to the failure.
 - b. The performance of any additional field testing, inspections, and evaluations to determine whether and to what extent the conditions associated with the failure, or any other integrity-threatening conditions, are present elsewhere on the line. The field testing must include: Consideration of a hydrostatic test to 100 percent SMYS; a detailed description of the criteria to be used for the evaluation and prioritization of any integrity threats/anomalies that are identified; making the results of the inspections, field excavations, and evaluations available to PHMSA or its representative; and the performance of repairs or other corrective measures not already made that fully remediate the condition(s) associated with the pipeline failure and any other integrity-threatening condition everywhere along the pipeline where such conditions are identified by the evaluation process; a detailed description of the repair criteria and methods to be used in undertaking any repairs or other remedial actions.
 - c. Provisions for continuing long-term periodic testing and integrity verification measures to ensure the ongoing safe operation of the pipeline, considering the results of the analyses, inspections, and corrective measures undertaken pursuant to this Corrective Action Order.
 - d. A proposed schedule for completion of the actions required by paragraphs (a) through (c) of this Item.
11. Respondent must revise the remedial work plan as necessary to incorporate new information obtained during the failure investigation and associated remedial activities. Submit any such plan revisions to the Director for prior approval. The Director may approve plan elements incrementally. The Corrective Action Order hereby incorporates the remedial work plan by reference.
12. Respondent must implement the work plan as it is approved by the Director, including any revisions to the plan.

13. Respondent must submit quarterly reports to the Director that: (1) include available data and results of the testing and evaluations required by this Order; and (2) describe the progress of the repairs and other remedial actions being undertaken.
14. Respondent must maintain documentation of the costs associated with implementation of the corrective action order. Include in each quarterly report submitted pursuant to Item 13, the to-date total costs associated with: (1) preparation and revision of procedures, studies and analyses; and (2) physical changes to pipeline infrastructure, including repairs, replacements and other modifications.
15. The Director may allow the removal or modification of the pressure restriction set forth in Item 5 upon a written request from Respondent demonstrating that the hazard has been abated and that restoring the affected pipeline, or portion thereof, to its pre-failure operating pressure is justified based on a reliable engineering analysis showing that the pressure increase is safe, considering all known defects, anomalies, and operating parameters of the pipeline.
16. The Director may grant an extension of time for compliance with any of the terms of this Order upon a written request timely submitted demonstrating good cause for an extension.
17. With respect to each submission that under this Order requires the approval of the Director, the Director may: (a) approve, in whole or part, the submission; (b) approve the submission on specified conditions; (c) modify the submission to cure the deficiencies; (d) disapprove in whole or in part, the submission, directing that Respondent modify the submission, or (e) any combination of the above. If the Director approves, approves with conditions, or makes modifications, Respondent must proceed to take all action required by the submission as approved or modified by the Director. If the Director disapproves all or any portion of the submission, Respondent must correct all deficiencies within the time specified by the Director, and resubmit it for approval.

The terms and conditions of this Corrective Action Order are effective upon receipt of service.



Jeffrey D. Wiese
Associate Administrator
for Pipeline Safety

FEB 17 2010

Date Issued