Mr. Anthony L. Botterweck
President
Koch Pipeline Company, L.P.
P.O. Box 2256
Wichita, Kansas 67201

Re: CPF No. 31506

Dear Mr. Botterweck:

Enclosed is the Final Order issued by the Associate Administrator for Pipeline Safety in the above-referenced case. It makes finding of violations and assesses a civil penalty of $335,000. The penalty payment terms are set forth in the Final Order. Your receipt of the Final Order constitutes service of that document under 49 C.F.R. § 190.5.

Sincerely,

Gwendolyn M. Hill
Pipeline Compliance Registry
Office of Pipeline Safety

Enclosure

cc: Michael E. McMahon, Esq.
Koch Industries, Inc.
Legal Department
600 Travis, 49th Floor
Houston, Texas 77002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

DEPARTMENT OF TRANSPORTATION
RESEARCH AND SPECIAL PROGRAMS ADMINISTRATION
OFFICE OF PIPELINE SAFETY
WASHINGTON, DC 20590

In the Matter of	
Koch Pipelines, Inc.	CPF No. 31506
Respondent.	

FINAL ORDER

During July, 1991, pursuant to 49 U.S.C. § 60117, a representative of the Office of Pipeline Safety (OPS) conducted an investigation of the June 29, 1991 accident involving Respondent's pipeline in Junction City, Wisconsin. As a result of the investigation, the Director (formerly Chief), Central Region, OPS, issued to Respondent, by letter dated December 31, 1991, a Notice of Probable Violation and Proposed Civil Penalty (Notice)[1]. In accordance with 49 C.F.R. § 190.207, the Notice proposed finding that Respondent had committed violations of 49 C.F.R. Part 195, and proposed assessing civil penalties of $600,000 ($100,000 for the alleged violation of § 195.238, $150,000 for the alleged violation of § 195.246, $150,000 for the alleged violation of § 195.252, and $200,000 for the alleged violation of § 195.414).

Respondent responded to the Notice by letters dated January 23, and March 17, 1992 (Response). Respondent contested the allegations and requested a hearing that was held on April 7, 1992. After the hearing, on May 18, 1992, Respondent provided additional information (Supplemental Response).

[1] Note that OPS also issued a July 5, 1991 hazardous facility order in connection with this accident (see In the Matter of Koch Pipeline Company, CPF NO. 31505-H).

DISCUSSION AND FINDINGS OF VIOLATION

BACKGROUND

The Notice's eight alleged violations focus on four general problems associated with Respondent's pipeline. These problems involve: 1) applying a protective coating, during the pipeline's construction, to a twelve-mile segment (the twelve- mile segment extends from Junction City, Wisconsin to the Wisconsin River and subsequently referred to as the "twelve-mile segment") of Respondent's Junction City to Waupun Terminal Station 10-inch pipeline (subsequently referred to as the "Junction City-Waupun line"); 2) preparing the trench for the installation of the pipe; 3) backfilling during construction of the twelve-mile segment; and 4) cathodic protection of Respondent's three pipelines connected to the Waupun Terminal Station.

Item 1 of the Notice alleges that Respondent did not apply the pipeline's external protective coating according to the manufacturer's instructions and did not follow its own construction specifications concerning the application of the external protective coating. A discussion of this allegation appears in subsection "1" below. Item 2 of the Notice alleges that, during the pipeline's construction, Respondent performed inadequate inspections of the backfilling operations. A discussion of this allegation appears in subsection "2" below. Item 3 of the Notice alleges that, based on the Respondent's method of application, the external coating on the twelve-mile segment did not sufficiently adhere to the pipe so as to prevent the under-film migration of moisture and corrosion. A discussion of this allegation appears in subsection "3" below. Items 5 and 6 of the Notice address the installation of the pipe in the ditch and backfilling problems associated with the twelve-mile segment. A discussion of these allegations appear in subsection "4" below. Finally, items 4, 7 and 8 of the Notice address the cathodic protection at the Waupun Terminal Station, and are discussed in subsection "5" below.

1. Requirement that an Operator comply with Comprehensive Written Specifications

Item #1 in the Notice alleges that Respondent violated
49 C.F.R. § 195.202, which requires that a pipeline be constructed according to "comprehensive written specifications."
Specifically, the Notice alleges that Respondent adopted written specifications for construction of the Junction City-Waupun line and these specifications required the use of an external protective coating. In addition, the coating had to be applied according to manufacturer's specifications. The Notice alleges that Respondent did not apply the coating, to the twelve-mile segment, in accordance with manufacturer's specifications and written comprehensive

specifications.

Instead of applying the coating at the pipe yard ("plant-applied" or "yard-applied"), the Notice alleges that the coating (ie. the Polyken YG III Plant Coating System, and will be referred to as the "Plant Coating System") was applied after construction of the pipeline segment. Thus, the Notice alleges that in applying the coating by the "over-the-ditch" method (i.e. the coating is applied after the pipeline was strung in the right-of-way and girth welds were completed), Respondent did not follow written procedures or the manufacturer's written specifications.

During construction of the twelve-mile segment, as indicated by Respondent's records, and not otherwise disputed by Respondent, the Plant Coating System was the predominant coating used for the over-the-ditch application. According to the manufacturer's specifications, the Plant Coating System is a product specifically designed to be applied at the plant, as the name of the product suggests. The manufacturer's specifications (see Hazardous Liquid Pipeline Safety Violation Report subsequently referred to as "Violation Report") give comprehensive guidelines relating to the product's application[2]. The specifications do not allow application of the Plant Coating System by the over-the-ditch method. In fact, other Polyken products are referenced as suitable for application by the over-the-ditch method.

A pipeline's external coating protects the metal pipe from external corrosion, and also allows the pipe to act as an electrical conductor which is essential for adequate cathodic protection. There is a distinct difference between the plant-applied application method and the over-the-ditch application method. The advantages of plant-applied coating are that its application is performed in a controlled environment, and that it provides the metal pipe with a cleaner and more consistent coating. The record indicates that Respondent applied the external coating during the winter season and in extreme conditions, where the cold temperatures contributed

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[2] According to Polyken's "Application/Construction Specifications" applicable during the construction of the pipeline, three major pipeline coating systems were appropriate for use in land-based pipelines. They were: (1) Over-The-Ditch Application Specifications; (2) Polyken YG III Plant Coating System Application Specifications; and (3) Polyken Joint Wrap Application Specifications. Pages 6-9 of these specifications provide comprehensive instruction on the use of the YG III Plant Coating System when coating a pipeline at the plant. Over-The-Ditch Application Specifications are listed on pages 3-5 of the Application/Construction specifications. The over-the-ditch instructions describe coating application procedures when coating is performed over-the-ditch. Use of the Polyken YG III Plant Coating System is not discussed in the section covering over-the-ditch application.

to the coating's poor adhesion to the pipe.

At the hearing and in its Supplemental Response, Respondent stated that section 5 of its construction procedures required that the Plant Coating System be yard-applied, but only to the extent that a "yard" (i.e. "plant") is established. Respondent's Supplemental Response also claims that use of the over-the-ditch method is an adequate alternative to the plant application method. A review of the construction contract's language at Section 5, Paragraph 1.01, confirms Respondent's assertion that the Plant Coating System was to be yard-applied, but only to the extent that a "yard" (i.e. "plant") is established. However, this caveat in the contract does not resolve the entire alleged violation.

Respondent also asserts that the manufacturer, through its on-site agent, made oral amendments during the installation process to permit the coating's application by the over-the-ditch method. The Polyken representative's log (Supplemental Response at section A), indicates his acquiescence to the coating's application by the over-the-ditch method and, thus, supports Respondent's claim that it applied the Plant Coating System in accordance with Polyken's oral representations.

However, regardless of parties' oral agreement to allow for over-the-ditch application, the issue remains whether Respondent followed comprehensive written procedures in applying the external protective coating. Thus, even if one concedes that the manufacturer's specifications covered only the yard application of the Plant Coating System, one must still examine whether Respondent satisfied the regulatory requirement that it adhere to written specifications for the application of the external coating by the over-the ditch method. Thus, even though Respondent's construction specifications contain a caveat concerning the yard-application method, the issue remains as to whether Respondent followed "comprehensive written instructions" in applying the external protective coating.

Maintaining and adhering to written specifications ensures that construction activities are performed in a consistent manner, with all appropriate employees being cognizant of the applicable requirements, and aids in the quality control process. Thus, while Respondent may have applied the external protective coating according to the method approved by a Polyken field representative, the regulations require adherence to comprehensive written specifications.

There is nothing in the record that indicates that Respondent prepared comprehensive written specifications affirming the oral amendments made by the parties for the over-the-ditch application method. After reviewing the record, I find that Respondent violated 49 C.F.R. § 195.202 by failing to have comprehensive written specifications for the over-the-ditch application of the pipeline's external protective coating.

2. Requirement to Conduct Adequate Inspections

The Notice also alleges that Respondent violated 49 C.F.R. § 195.204, which requires that a pipeline operator inspect its construction activities to ensure that the construction is performed in accordance with the regulations. The Notice alleges that Respondent's inspections were inadequate because they failed to ensure that the backfilling operations were completed in accordance with its written construction specifications, as required by Part 195, Subpart D.

Specifically, the Notice alleges Respondent failed to ensure, through adequate inspection, that its backfilling operations were performed in accordance with the written procedures set forth in Section 4.09.01 of its construction specifications. (See Violation Report at Exhibit J). These specifications require that "all rock 3" diameter and larger will be separated from the soil". The specifications require that these rocks be removed for "off- site" disposal. In addition, according to the specifications, the contractor "shall not be allowed to bury this rock anywhere within the easement".

Respondent's inspectors, who were monitoring the installation of the pipe, allegedly failed to ensure that large rocks were separated from the backfill for off-site disposal. As a result, these large rocks were left in the backfill and eventually came in contact with the pipe.

At the hearing, Respondent asserted that it had assigned a number of its inspectors to monitor the installation of the twelve-mile segment. Respondent produced a list of employees who performed inspection activities on the pipeline during the February, 1988 to July, 1988 period (see Supplemental Response at Section E). While this listing demonstrates the number of inspectors used in the project, it does not assist in determining whether, in accordance with 49 C.F.R. Part 195, Subpart D, Respondent performed a diligent inspection. Respondent claimed that its inspectors were well-trained and experienced. However, despite this experience and training, the evidence in the record demonstrates that the inspectors allowed large rocks to remain in the backfill. The videotape, taken immediately following the accident (see Violation Report at Exhibit A), shows that many large rocks (greater than three inches in diameter) were buried along the pipeline right-of-way and the trench used for the twelve-mile segment. The videotape shows that the backfill along the entire right-of-way was replete with rocks that should have been separated from the backfill and disposed of at an off-site location. Considering the sheer number of rocks encountered along the length of the twelve-mile segment (see discussion below), an experienced, diligent inspector, making regular inspections, would have been aware of the magnitude of the problem.

In addition, Respondent has alleged in a lawsuit filed against the contractor responsible for the backfilling operation that "procedures, methodologies and specifications" set forth in contracts between them were not followed, resulting in ". . . laying the pipeline on rock, placing rocks larger than three inches (in diameter) in the right of way and ditch. . ." (See Supplemental Response at section G; Southeast Pipeline Contractor's Inc. v. Koch Pipelines, Inc., File No. 3-91-682, Defendant's Answer/Counterclaim, Count 1, Paragraph 35). Respondent also stated that its post-accident investigation revealed that “the contractor simply pushed rocks onto the pipeline.” (See Supplemental Response at pages 5-6).

In considering all the information presented, I find that the

inspections performed during construction of the twelve-mile segment were not adequate to ensure that Respondent's backfilling operations were conducted in compliance with its own written construction specifications and the requirements of 49 C.F.R. Part 195, Subpart D. Accordingly, I find Respondent violated 49 C.F.R. § 195.204.

3. Application of Protective Coating on the Pipeline

The Notice also alleges that Respondent violated 49 C.F.R. § 195.238(a)(2) by burying its pipeline with an external protective coating which did not have sufficient adhesion to the pipe's metal surface and therefore, did not prevent the under-film migration of moisture.

During the post-accident investigation, an OPS inspector discovered many locations where the inspector could easily remove full-size wraps of pipe's external coating. After the coating was removed, the inspector observed areas of moisture and corrosion on the pipe. At the hearing, OPS asserted that properly applied protective coating would be difficult to "pull" from the pipe. In the videotape (see Violation Report at Exhibit A), an OPS inspector is seen removing the external coating with very little effort. OPS asserted that this was an indication that Respondent had not adequately applied the external coating. In addition, OPS asserted that had the Plant Coating System been applied as per the manufacturer's specifications, the coating wrap would not have been so easily separated from the pipe.

In its Supplemental Response, Respondent argued that the OPS "pull tests" were not scientific. Respondent provided a letter from Polyken Technologies contending that an external coating's adhesion is measured by using the industry standard, American Society for Testing and Materials (ASTM) D-1000 Modified Adhesion Testing Standard. (see Supplemental Response at page 2). Under these standards, the adhesion of pipeline coating can be determined by peeling a 1-inch strip, at 12-inches per minute, at a peel angle of 180 degrees. A lower angle, and/or a faster pull rate will result in an inaccurate determination of the adhesive's strength.

In viewing the videotape, the "pull test" performed by the OPS inspector was not performed in a scientific manner. However,

in a number of instances, the removal of the pipe’s coating exposed areas of moisture and superficial corrosion of the pipe’s surface. In addition, pictures taken of the pipeline during the inspection (see Violation Report at Exhibits B and E) show a corrosion buildup on numerous pipeline segments, indicating that moisture had migrated under the coating. Thus, regardless of the validity of the adhesion test performed by the OPS inspector, the adhesion of the coating was inadequate to prevent under-film migration of moisture.

Upon reviewing the videotape of the twelve-mile segment, the photographs and the inspector's observations, I find that Respondent did not apply an external coating which had sufficient adhesion to the pipe's metal surface to prevent under-film migration of moisture. Accordingly, I find Respondent violated 49 C.F.R. § 195.238(a)(2).

4. Pipeline Installation and Related Activities

A. Installation of Pipe in the Ditch

The Notice also alleges that Respondent violated 49 C.F.R. § 195.246(a), which requires that, when installing pipe in a ditch, an operator minimize the introduction of secondary stresses and the possibility of damage to the pipe.

The Notice alleges that during a mid-1991 inspection of the first 2.6 miles of pipeline, immediately downstream of Respondent's Junction City terminal (part of the twelve-mile segment), OPS inspectors discovered 22 dents, 2 buckles and 3 gouges on the pipe. Some of these indentations were discovered along the lower quadrant of the pipeline. According to OPS, impacts causing damage on the lower quadrant such as those documented and observed in this case, are indicative of improper pipe installation.

The Notice further alleges that while Respondent's Construction Specifications, Section 4, Paragraphs 4.10 and 10.6 specify that all rocks larger than 3 inches in diameter be removed from the pipeline easement, as previously discussed, rocks larger than this diameter were present throughout the backfill and some were found to be in contact with the pipe. In fact, many of these rocks had sharp edges, thereby posing a greater risk to the pipeline. In addition, according to OPS, rocks of this

diameter and larger were left imbedded in the ditch bottom and came in direct contact with the pipe. According to the Notice, by installing the pipeline on these rocks, Respondent allowed a secondary stress on the pipeline and increased the possibility of damage to the pipeline.

At the hearing, Respondent did not dispute that the backfill contained numerous rocks, many were larger than 3 inches in diameter and some were in contact with the pipe. Further, Respondent did not dispute the fact that the risk of harm is increased when large rocks come in contact with a pipeline. In addition, Respondent did not dispute that its construction specifications called for removal of these large rocks from the pipeline right-of-way. The OPS investigation established that Respondent did not remove large rocks from its backfill. Industry practice requires that any soil that is used for backfill be free of large rocks, because these rocks produce secondary stresses and can cause damage when they come in contact with pipeline.

In addition, Respondent's Supplemental Response at section H, contains information about three individuals who viewed portions of the pipeline's construction. In all three accounts, these individuals saw large rock being pushed back into the backfill. Although Respondent's contractor was performing the backfill operations, Respondent, as owner and operator of this pipeline, is responsible for compliance with the pipeline safety regulations.

Metallurgical Consultants, Inc., prepared a metallurgical report to determine the cause of Respondent's June 29, 1991 pipeline failure. The report stated that the failures along the pipeline were caused by rocks impacting the pipeline, and mechanical damage to the pipe during the initial construction of the pipeline (see Violation Report at Exhibit M).

The metallurgical firm's conclusions and eyewitness accounts support the allegation that Respondent did not minimize the possibility of damage to the pipe. Mechanical damage to the pipe during its installation indicates that operators of earth-moving equipment and support personnel, charged with monitoring the earth-moving operations, did not adequately ensure that the pipe was installed in a manner which minimized the possibility of damage to the pipeline.

After reviewing all the evidence presented, I find Respondent violated 49 C.F.R. § 195.246(a) for failing to minimize secondary stresses and the possibility of damage to the pipeline.

B. Requirements for Backfilling

The Notice also alleges that Respondent violated the backfilling requirements of 49 C.F.R. § 195.252, which requires that backfilling be performed in a manner that protects the pipe's coating and provides firm support for the pipe.

As with the previous alleged violations, the Notice states that an OPS inspector saw rocks larger than three inches in diameter in the backfill and, more importantly, in contact with the pipeline. The Notice alleges that rocks, larger in size than what industry practice and Respondent's own procedures would allow as suitable backfill material, were present along the entire twelve-mile segment.

At the hearing, Respondent did not deny the allegation, but renewed its claim that it had relied on its contractor to adhere to its construction specifications. Respondent, as the pipeline operator, is responsible for compliance with pipeline safety regulations (see 49 C.F.R. § 195.10). Thus, the issue is whether, Respondent ensured compliance with the safety requirements prescribed in section 195.252. Respondent's reliance upon its contractor did not abrogate this responsibility.

Backfilling is an operation that follows the initial excavation and involves the selective re-burial of earth. Industry practice requires that an operator ensure that large items, such as rocks and other debris, are separated from the excavated earth, or to bring in rock-free backfill, so that when re-buried, the installed pipeline is not damaged by the surrounding backfill. Dents caused by rock atop the upper quadrant of pipe are characteristic of poor backfilling operations. In addition, due to the settling of the backfill and operational vibrations, large rocks in direct contact with the pipe will damage the pipeline's external coating.

After reviewing the record, including the videotape, photographs of the backfill, and after considering the observations of the OPS inspector, I find that large rocks were present in the backfill surrounding the twelve-mile segment. By performing its backfilling operations in a manner inconsistent with industry practice and inconsistent with its own procedures, Respondent did not perform backfilling that

protected the pipe's coating or provided for the pipe's firm support. Thus, I find that Respondent was in violation of 49 C.F.R. § 195.252.

5. Cathodic Protection

A. Cathodic Protection System

The Notice also alleges that Respondent violated 49 C.F.R. § 195.242(a), which requires that each operator install a cathodic protection system for all buried and submerged facilities and develop procedures to determine if the facility has adequate levels of cathodic protection.

The Notice alleges that Respondent's test procedures, used to determine the adequacy of its cathodic protection, failed to properly identify the cathodic protection deficiencies on its pipeline. Specifically, as a result of Respondent's failure to adequately interpret information in its possession, the Notice alleges that the following test areas exhibited inadequate cathodic protection and went unidentified from November, 1989 to February, 1991:

1. Milepost (MP) 246.42 - MP 260.00 (Junction City to Waupun) - According to Respondent's "Pipeline Inspection and Repair Reports" (see Violation Report at Exhibit F), 61 locations were found to have external corrosion during the period of 5/18/91-6/4/91.

2. MP 260.00 - MP 272.2 (Waupun to Granville) - According to Respondent's "Pipeline Inspection and Repair Reports" (see Violation Report at Exhibit G), 17 locations were found to have external corrosion during the period of 5/6/91-6/6/91.

3. MP 0.00 - MP 15.0 (Waupun to Madison) - According to Respondent's "Pipeline Inspection and Repair Reports" (see Violation Report at Exhibit H), 57 locations were found to have external corrosion during the period of 5/31/91-6/13/91.

At the hearing, Respondent stated that it had complied with the regulation. Respondent stated that it had "test procedures" that were sufficient to "determine whether adequate cathodic

protection had been achieved". However, Respondent added that its procedures were not properly interpreted in the field. In addition, in its Supplemental Response, Respondent states: “In going back through the test results[,] anomalies appeared in the data but through the error of certain of Koch’s employees the anomalies were not noticed and the problems were not immediately corrected.” (see Supplemental Response, page 8). During the hearing, OPS stated that the regulation requires that a pipeline operator have adequate procedures to analyze the data, and not simply adequate procedures to gather data.

Respondent's narrow interpretation of the regulation would imply that compliance with the regulation occurs when test procedures can be used to generate test data, and that any analysis of the results gained from use of these procedures is outside the scope of the regulation. However, such an interpretation does not take into consideration the regulatory requirement to "determine" the adequacy of a facility’s cathodic protection. Having procedures to gather test data is of little benefit if an operator does not have procedures to properly analyze the test data.

Specifically, Respondent did not adequately analyze the pipe-to-soil readings on both sides of the insulated flanges near the Waupun Terminal Station. Analysis of the readings on both sides of the insulated flanges showed a deficiency in the pipeline’s level of cathodic protection. While Respondent did take readings on both sides of these insulated flanges, Respondent did not adequately interpret these readings. Had Respondent adequately analyzed these readings, Respondent would have realized that the voltage readings were outside normal parameters, and that the situation required further investigation. A reasonable investigation would have shown that stray cathodic protection currents were present and lacked a return metallic path across the Waupun Station's insulated flanges. This situation created an endwise current flow in the pipeline which caused an accelerated corrosion rate at those points where there was a gap in the pipeline’s external coating.

Improperly analyzing pipe-to-soil data received from its pipeline indicate that Respondent did not have adequate procedures to determine if its buried facility had an adequate level of cathodic protection. Accordingly, I find that Respondent violated 49 C.F.R. § 195.242(a).

B. Cathodic Protection

The Notice also alleges that Respondent violated the cathodic protection requirements of 49 C.F.R. § 195.414(a), which prohibits an operator from operating an interstate pipeline that has an external coating, unless the pipeline is cathodically protected. The Notice alleges that two major problems associated with Respondent's cathodic protection system indicate that Respondent operated its interstate pipeline without cathodic protection.

Specifically, the Notice alleges that Respondent did not install bonds on insulated flanges that isolated the three pipelines that were connected to the Waupun Terminal Station piping. While the Junction City-Waupun, Waupun-Milwaukee, and Waupun-Madison lines were isolated from the Waupun Terminal Station piping at the station's insulated flanges, the Notice alleges that current-carrying bonds were not installed at the insulated flanges and, as a result, stray currents from the Waupun Terminal Station's high voltage-amperage rectifier were picked up on the three pipelines. Because there were no return current-carrying paths across the insulator to the Station rectifier, endwise current flows escaped at gaps in the pipelines' external coating and caused the pipelines to experience significant corrosion damage.

In addition, the evidence demonstrates that there were other significant cathodic protection problems along portions of the pipeline, especially in the vicinity of the Waupun Terminal Station. The cathodic protection on these portions of Respondent's line went on-line in March, 1989. The corrosion on pipeline segments around the Waupun Terminal Station were not discovered until February 18, 1991, when a Safety-Related Condition Report (91-0004) was filed with OPS. However, it was not until March 10, 1991, when Respondent ran an internal instrumented inspection device, that Respondent became aware of the severity of the corrosion problems near the Waupun Terminal Station.

According to Respondent, the two header cables (leads) designed to provide cathodic protection at Respondent's Amity Road rectifier were accidentally severed during performance of maintenance work (installation of a gravitometer) in November, 1989. In an attempt to "repair" these leads, Respondent or its

contractor reconnected them in a reverse configuration (i.e. connected the anode and cathode header cables in reverse). Properly attached header cables inhibit pipeline corrosion. Reversed header cables accelerate corrosion. Instead of protecting the pipe by using electric current to inhibit corrosion, the ground bed was being protected at the expense of the pipe, which the Notice alleges, led to the pipe's accelerated corrosion rate. A total of 12 months elapsed between the time that accelerated corrosion problems began until the header cable situation was corrected.

At the hearing, Respondent asserted that, but for the Amity Road rectifier problem and the Waupun Terminal Station insulated flange problem, its cathodic protection system was in satisfactory condition during the period in question. Respondent also emphasized that it had resolved all of its cathodic protection problems. While Respondent's cathodic protection system may now be satisfactory, the issue is whether cathodic protection was sufficient at the times cited in the Notice. Respondent's cathodic protection records for the Waupun area dating from November, 1989, through February, 1991, show on-off cathodic protection potentials to have a more negative reading when the rectifier was cycled "off". This was a clear and immediate indication of problems with Respondent's cathodic protection system. Some recorded potentials on these same records show readings well below what would be considered protected levels.

After considering all the information presented, I find Respondent's cathodic protection system was not adequate. In fact, its cathodic protection system may have caused accelerated deterioration on those pipeline segments connected to the Waupun Terminal Station. Thus, I find that Respondent was in violation of 49 C.F.R. § 195.414(a).

C. External Cathodic Protection

Finally, the Notice alleges Respondent violated 49 C.F.R. § 195.416(a), which requires that each operator must conduct tests to determine that the pipeline's cathodic protection is adequate.

Specifically, the Notice alleges that while Respondent conducted testing during the required time periods, the

"testing conducted, data received and the evaluation of the data failed to identify the deficiencies" in Respondent's cathodic protection system along the Junction City-Waupun line.

Respondent stated that its tests were designed to determine whether its pipeline's cathodic protection was adequate. However, Respondent also stated that it did not have the capability, during the period cited in the Notice, to interpret the data being generated by the tests.

The evidence has demonstrated that an inability to interpret the cathodic protection test data prevents a determination as to whether a pipeline has adequate cathodic protection. Accordingly, after considering the information presented, I find Respondent violated 49 C.F.R. § 195.416(a).

These findings of violation will be considered prior offenses in any subsequent enforcement action taken against Respondent.

ASSESSMENT OF CIVIL PENALTIES

At the time the Notice was issued, under 49 U.S.C. § 60122, Respondent was subject to a civil penalty not to exceed $10,000 per violation for each day of the violation up to a maximum of $500,000 for any related series of violations.

49 U.S.C. § 60122 and 49 C.F.R. § 190.225 require that, in determining the amount of the civil penalty, I consider the following criteria: nature, circumstances, and gravity of the violation, degree of Respondent's culpability, history of Respondent's prior offenses, Respondent's ability to pay the penalty, good faith by Respondent in attempting to achieve compliance, the effect on Respondent's ability to continue in business, and such other matters as justice may require. The Notice proposed $600,000 civil penalties with respect to the violations of 49 C.F.R. §§ 195.238, 195.246, 195.252 and 195.414.

In its submissions, Respondent argues that the proposed civil penalty should be reduced because it relied on its contractor to complete the pipeline construction in accordance with the pipeline safety regulations. In support of its reliance claim, Respondent notes a civil suit where it has alleged that the "procedures, methodologies and specifications" set forth in

contracts between Respondent and the contractor responsible for coating the pipeline governing, inter alia, the manner in which the pipeline was to be coated, were "breached". (See Supplemental Response at section G; Southeast Pipeline Contractor's Inc. v. Koch Pipelines, Inc., File No. 3-91-682, Defendant's Answer/Counterclaim, Count 1, Paragraph 35). Specifically, Respondent alleged that "by failing to abide by the terms of the contracts", its contractor "improperly" coated the pipeline. Id. The position taken by Respondent in its civil suit clearly indicates that Respondent believes that the application of coating was not carried out in a manner consistent with the written procedures, methodologies and specifications agreed upon by the parties. The allegations made in Respondent's civil suit against its pipeline coating contractor provide some insight to Respondent's belief that procedures and specifications relating to the application of pipeline coating were not followed.

Respondent also requests that the proposed civil penalty be reduced based on how OPS has treated similarly situated Respondents in past enforcement actions. Respondent contends that, like In the Matter of Marathon Pipeline Company, CPF No. 3550, it has taken extraordinary measures in the wake of the June 29, 1991 pipeline failure. Respondent notes that the civil penalty in Marathon was reduced by 50 percent based on Respondent's corrective actions (see Supplemental Response, page 5).

Respondent also argues that "[t]he size and nature of the proposed penalty would seem contrary to the Department's desire for the operators of pipelines to be open and willing to work with the Department in resolving any perceived operating problems." (See Supplemental Response, page 7). During the hearing, Respondent emphasized that OPS would have been unaware of a number of deficiencies (e.g., extent of the problem with the pipeline's external coating) were it not for the Respondent's candor and cooperation (see Supplemental Response, pages 6-7). Respondent points to the hazardous facility order and the replacement of the twelve-mile segment as two examples of Respondent's willingness to work with OPS to ensure the pipeline's safe operation. Respondent also highlighted the fact that, prior to June 29th accident, it ran an internal inspection device through the entire length of its eight-inch (Waupun, Wisconsin to Madison, Wisconsin) and ten-inch (Junction City, Wisconsin to Granville, Wisconsin) pipelines. After the June 29th accident, Respondent made this test data

available to OPS. In addition, after replacement of the twelve-mile segment and prior to the pipeline's operation, Respondent hydrostatically tested, and ran another internal inspection device, through the entire ten-inch pipeline.

While Respondent concedes there may have been "technical violations" concerning its cathodic protection, it claims that OPS became aware of the problem only after it filed a safety-related condition report (see Supplemental Response, page 8; see also 49 C.F.R. § 195.56). Respondent contends that the information it provided to OPS forms the basis of the proposed civil penalty. Respondent argues that as a result of this OPS enforcement proceeding, OPS is "telling the industry that if an operator is open with the Department [OPS], provides it with information that it may or may not be required to provide under the regulations, seeks the Department's [OPS'] assistance in addressing or correcting a perceived problem and seeks to work hand[-]in[-]hand with the Department [OPS], the Department [OPS] is going to turn around and use that information against the operator by seeking the imposition of heavy fines against the operator." (See Supplemental Response, page 10). Respondent also cites the fact that, prior to the June 29th accident, it began correcting the corrosion problems and had reduced the pipeline's operating pressure.

In addition, Respondent stated that following the June 29th accident, its corrosion training "increased dramatically." (See Supplemental Response, pages 8-9). Respondent stated this training included "in-house and outside seminars, actual hands on training with outside consultants and in-house experts and the refinement of certain testing procedures." Id. Respondent also co-hosted a March 1992 seminar which covered the OPS regulations.

Respondent also argues that the gravity of the violations do not support the amount of the proposed civil penalty (see Supplemental Response, page 9). Respondent claims that because the June 29th accident did not result in loss of life or substantial property damage, the gravity of the violations do not support "the largest fine collected by the Department [OPS] in recent history." Id.

Respondent fully investigated and corrected all the problems identified by OPS prior to receiving the Notice. For example, Respondent replaced, on its own initiative, the twelve-mile Junction City-Wisconsin River segment at a cost of almost $4

million dollars. Furthermore, Respondent, according to its estimate, has spent over $10 million dollars to correct the problems on the affected portions of its pipeline system (See Supplemental Response, page 3).

While Respondent's corrective actions following the June 29th accident is a mitigating factor, it must be balanced against other factors, such as the nature, circumstances and gravity of the violations. The rupture which triggered the OPS investigation was significant, spilling a large amount of petroleum product which presented the threat of serious harm to life and property.

Respondent’s reliance claim is not a mitigating factor because although pipeline operators may use contractors to perform any action required by the pipeline safety regulations, section 195.10 states that operators are not thereby relieved from the responsibility for compliance with any requirement in 49 C.F.R. Part 195.

In addition, Respondent’s filing a safety-related condition report prior to the June 29th accident is not a mitigating factor, because, given the pipeline’s location (close proximity to private residences, streams and rivers) and its condition at the time of the report, a reasonably prudent operator would have filed a report. In addition, OPS would not have mitigated the proposed civil penalty to the extent it has, unless Respondent displayed a good faith effort to achieve compliance. It is clear from the record, Respondent did proceed with a good faith effort toward correcting the problems associated with these violations.

However, the failures suffered on Respondent's pipeline are directly related to structural problems such as dents and gouges. Numerous dents and gouges resulted from Respondent's installation of the pipe in a ditch, backfilling that ditch, and inspecting those operations in a manner that was not in compliance with the pipeline safety regulations. In addition, failing to ensure that construction is performed in accordance with the requirements of the pipeline safety regulations by failing to perform backfilling operations in a manner that protects pipe coating and minimizes damage to the pipe, seriously jeopardizes the structural integrity of the pipeline. Although Respondent may attribute the responsibility for these actions to its agent, Respondent was responsible for compliance with the pipeline safety regulations.

Respondent's failure to maintain adequate levels of cathodic protection on its pipeline led to corrosion, which increased the likelihood of a pipeline failure. Not only were the lines unprotected, but the reversal of the header cables appeared to cause accelerated corrosion on the pipeline.

Respondent's failure to adequately inspect the construction of the twelve-mile segment from Junction City, Wisconsin to the Waupun River, in accordance with the regulations, led to a hazardous condition. Further, the magnitude of this problem resulted in issuance of a hazardous facility order. Respondent's inspectors, for whatever reason, failed to adequately monitor the pipeline's construction. The multitude of large rocks along the pipeline led to dents, gouges and other indentations which resulted in deterioration of the pipeline system. As a result, the likelihood that leaks, cracks and other breaches would occur was greatly increased as well as the risk of serious harm to life and property.

Respondent's failure to ensure that the protective coating was adequately applied to the pipe compromised the pipe's corrosion resistance. Moisture trapped under the protective coating caused localized corrosion cells and surface corrosion on the pipe. This corrosion was observed and documented during the OPS investigation of the failure and at coating examinations conducted at random excavations along the pipeline.

Respondent does not have a history of prior offenses for these violations.

Accordingly, having reviewed the record and considered the assessment criteria, I assess Respondent a civil penalty of $335,000. I further find that Respondent is able to pay the penalty, and that payment will not adversely affect its operations.

Payment of the civil penalty **must be made within 20 days of service**. Federal regulations (49 C.F.R. § 89.21(b)(3)) require this **payment be made by wire transfer**, through the Federal Reserve Communications System (Fedwire), to the account of the U.S. Treasury. **Detailed instructions are contained in the enclosure**. After completing the wire transfer, send a copy of the **electronic funds transfer receipt** to the **Office of the Chief Counsel** (DCC-1), Research and Special Programs Administration, Room 8405, U.S. Department of Transportation,

400 Seventh Street, S.W., Washington, D.C. 20590-0001.

Questions concerning wire transfers should be directed to: **Valeria Dungee**, Federal Aviation Administration, Mike Monroney Aeronautical Center, Financial Operations Division (AMZ-320), P.O. Box 25770, Oklahoma City, OK 73125; **(405) 954-4719**.

Failure to pay the $335,000 civil penalty will result in accrual of interest at the current annual rate in accordance with 31 U.S.C. § 3717, 4 C.F.R. § 102.13 and 49 C.F.R. § 89.23. Pursuant to those same authorities, a late penalty charge of six percent (6%) per annum will be charged if payment is not made within 110 days of service. Furthermore, failure to pay the civil penalty may result in referral of the matter to the Attorney General for appropriate action in an United States District Court.

Under 49 C.F.R. § 190.215, Respondent has a right to petition for reconsideration of this Final Order. The petition must be received within 20 days of Respondent's receipt of this Final Order and must contain a brief statement of the issue(s). In accordance with 49 C.F.R. § 190.215(d), filing the petition does not stay the effectiveness of this Final Order. However, in the petition Respondent may request, with explanation, that the Final Order be stayed. The terms and conditions of this Final Order are effective upon receipt.

/s/ Richard B. Felder

Richard B. Felder
Associate Administrator
for Pipeline Safety

Date Issued: 04/28/98