Mr. David Barrett
Director, Central Region
Pipeline and Hazardous Materials Safety Administration
United States Department of Transportation
901 Locust Street, Suite 462
Kansas City, MO 64106-2641

RE: CPF 3-2012-5010

Dear Mr. Barrett:

Coffeyville Resources Crude Transportation, LLC (CRCT) is in receipt of your Notice of Probable Violation, Proposed Penalty, Proposed Compliance Order, and Notice of Amendment, all dated May 11, 2012. CRCT received your letter on May 15, 2012.

As provided in your instructions regarding response options, please be advised that CRCT has elected the following.

Notice of Probable Violation

With respect to Item Numbers 1 and 2, CRCT is contesting both the allegation and the penalty amount. CRCT is not requesting a hearing. In Attachment A to this letter, CRCT is providing a written response to the allegations that it believes justifies a finding of no violation or, at the very least, mitigation of the proposed penalty amount.

With respect to Item Numbers 3 and 4, CRCT is not contesting either the allegation or proposed penalty amount. In accordance with your instructions, the proposed penalty amounts ($22,100 for Item Number 3 and $18,400 for Item Number 4) were paid by wire transfer on June 8, 2012. A copy of the wire transfer confirmation is included on the CD accompanying this response

Proposed Compliance Order

CRCT is not contesting the compliance order. CRCT is submitting a written explanation, information, and other materials we believe warrant modification of the Proposed Compliance Order. In particular, we believe that Item Numbers 1 and Number 2 have already been satisfied. We are also seeking clarification on certain terms of the Proposed Compliance Order.

As you may be aware, based on our exit interview with your inspector, in which I and other members of CVR Energy's executive management participated, we embarked on an

ambitious effort to correct the deficiencies that were communicated to us at that time. We believe that many of the issues identified in the Proposed Compliance Order and in the Notice of Amendment have already been completed and most of the rest are well on their way to completion. We respectfully request PHMSA to review the attached materials and limit the Compliance Order and Notice of Amendment to only those items that remain outstanding.

Compliance Order Item No. 1

CRCT has met the terms of this item. CRCT's internal procedure, RCP 6.02 ADM-001 (included on the CD accompanying this response), establishes the criteria it uses to determine remedial actions to address integrity issues raised by assessments and information analysis. CRCT has completed a re-evaluation of the most current assessment reports for all pipeline segments. The re-evaluation has been verified by a statistically established number of calibration digs. Details of these activities, including the statistically established number of calibrations required for each evaluation, are provided in Attachment B to this letter.

Based on the information provided in Attachment B, CRCT believes that PHMSA can eliminate this item.

Compliance Order Item No. 2

CRCT has met the terms of this item. CRCT has completed repairs on all anomalies meeting the criteria for immediate conditions on all of its pipeline segments currently in service as more fully detailed in Attachment B to this letter. Based on the information provided in Attachment B to this letter, CRCT believes that PHMSA can eliminate this item.

Compliance Order Item No. 3

CRTC is respectfully requesting an extension of time to submit the requested training plan and schedule for qualified individuals. CRCT is in the midst of completely revising its entire Integrity Management Plan (IMP) document. To this end, we have engaged TDW Pipeline Services and Integrity Solutions, Ltd to assist us in the revision, re-implementation and training for this activity. Because the training required by Item Number 3 relies, in part, on the roles and responsibilities laid out in the IMP, the training contemplated by this item cannot be considered complete until each individual is trained on the contents of the revised IMP. In addition, CRCT notes that many of the issues identified in the Notice of Amendment also require revisions to our IMP document.

CRCT respectfully requests that the Regional Director grant it a 120-day extension of time to submit the training plan and schedule required under this item. CRCT is seeking a 120-day period to complete the IMP document revision in order to accommodate the complexities inherent in preparing and producing an entirely revised IMP document. CRCT requests that the 60-day period for filing the required plan and schedule begin to run from the date on which the IMP document revision is completed.

CRCT is seeking this extended time period solely because of these logistical constraints. Attachment C to this letter provides details of the current qualifications of the personnel and consultants assigned to review integrity assessment results and information analysis.

Compliance Order Item No. 4

CRCT will submit the required documentation. However, CRCT seeks clarification with respect to the timing of the submittal of the documentation. CRCT believes the present wording could be taken to mean that documentation should be submitted within 30 days of the completion of each compliance action, whereas the Agency may have intended, and CRCT would prefer, that all documentation be submitted within 30 days of the completion of the last compliance activity.

Compliance Order Item No. 5

CRCT has provided in Attachment B to this letter a summary of the costs requested by PHMSA incurred to date to complete Compliance Order Item No.1 and Item No. 2. To the extent that CRCT incurs costs to complete any remaining Compliance Order items, CRCT will maintain documentation and submit an updated summary to PHMSA.

Notice of Amendment

CRCT is not contesting the Notice of Amendment. CRCT is submitting in Attachment C to this letter a written explanation, information, and other materials we believe warrant your consideration and perhaps modification in the final order.

CRCT notes that no compliance date was given for any of the items included in the Notice of Amendment. CRCT respectfully suggests PHMSA set a 120-day period for the completion of these tasks, consistent with the request made in our response to Proposed Compliance Order Item Number 3.

Notice of Amendment Item No. 1

CRCT has completely re-evaluated and revised its determination of how its pipeline could affect High Consequence Areas (HCAs). Based on the HCA analysis information provided in Attachment C to this letter, CRCT believes PHMSA can eliminate this item from the final compliance order.

Notice of Amendment Items No. 2-4 and 6 -7

CRCT agrees with PHMSA's findings. CRCT's progress to date on these items is provided in Attachment C to this letter.

Notice of Amendment Item No. 5

As discussed more fully in Attachment C to this letter, CRCT has completely revised its risk ranking algorithm to incorporate the requirements indicated by PHMSA. Based on the new risk ranking model, included on the CD accompanying this response, CRCT believes that PHMSA can eliminate the first sentence of this item from the final compliance order.

CRCT agrees with PHMSA's findings in the second sentence of this finding and will be addressing those findings in its IMP revision.

Additional Information

In addition to the issues identified in the Notice of Amendment, and as a result of our exit interview with your inspector, CRCT compiled a list of other IMP related improvements we felt were beneficial to our operations. CRCT agrees with PHMSA that these other issues are not regulatory deficiencies. We have included in Attachment D to this letter an explanation of these items and the improvements we have made to provide PHMSA with a full picture of the effort and accomplishments we have achieved since your inspection.

Additionally, during your inspection we touched on our intended improvements to our SCADA and leak detection systems. We believe that the new SCADA system will significantly improve pipeline safety and fully compliments our concurrent improvements to the Integrity Management Program. A summary of the progress made to date is included in Attachment D.

If you have any questions about this response, please feel free to contact our environmental project manager in Kansas City, Sam McCormick, at 913-982-0457, or our Environmental, Health, and Safety Supervisor in Bartlesville, Mike Cogdill, at 918-333-4111, extension 5005.

Sincerely,

Robert Haugen
Executive VP of Refining Operations
CVR Energy, Inc.

Cc: Reed Copeland
Ned Gross

ATTACHMENT A

ATTACHMENT TO RESPONSE
NOTICE OF PROBABLE VIOLATION

Item No. 1

1. **§195.452 Pipeline integrity management in high consequence areas.**

(I) What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:

(4) Criteria for remedial actions to address integrity issues raised by the assessment methods and information analysis (see paragraph 1111 of this section);

Coffeyville Resources LLC (Coffeyville) has not established adequate criteria to determine the remedial actions required to address inline inspection (ILI) findings. Coffeyville did not perform sufficient verification and/or calibrations activities for each of the nineteen ILI runs performed on their pipelines. Procedure 6.02 ADM-011 requires that calibration digs be performed. While there was no evidence indicating that the lack of calibration digs contributed to pipeline accidents, two failures have occurred on pipe that had been previously assessed.

CRCT Response:

CRCT contests the alleged violations under this item. Section 195.452(f)(4) of DOT's regulations requires that CRCT's integrity management program include "[c]riteria for remedial actions to address integrity issues raised by its assessment methods and information analysis." CRCT has legitimate criteria in place under Regulatory Compliance Procedure 6.02 ADM-001, and these criteria were in place at the time of CRCT's inspection. (Note, the procedure cited in the allegation, 6.02 ADM-011, appears to be a typographical error). Section 2.3 of RCP 6.02 ADM-001 (included on the CD accompanying this response) clearly establishes criteria for remedial actions to address integrity issues raised by its assessment methods and information analysis. While the Notice of Probable Violation asserts that CRCT has not established "adequate" criteria, no standard for adequacy is included in the regulation.

The Notice of Probable Violation further claims that Coffeyville did not perform sufficient verification and/or calibration activities for each of 19 inline inspection runs. However, nothing in Section 195.452(f)(4) indicates that calibration digs or other verification activities are required. Moreover, Protocol 3.03 of PHMSA's Integrity Management Inspection Protocols expressly indicates that calibration digs are not mandatory. Specifically, Protocol 3.03 provides that "After ILI tool runs are completed, an operator may implement a process by which called anomalies are excavated so that tool results may be validated using actual, measured defect characteristics, in order to have confidence in the assessment results." (emphasis added).

While CRCT is contesting the alleged violations in this item, CRCT wishes to assure PHMSA that CRCT is fully committed to implementing effective verification procedures for on-going integrity assessment methods and information analysis. On October 7, 2011, CRCT provided to PHSMA (Darren Lemmerman) detailed information on two confirmation digs for our Hooser 8" pipeline segment and three confirmation digs for our Valley 6" pipeline segment.

CRCT has conducted confirmation digs following more recent in-line inspection runs on its Humboldt, Plainville, Shidler, and Broome 12" pipeline segments. Details of these confirmation digs are available upon request for your review.

The three CRCT pipeline segments from Bartlesville to Broome (4", 6", and 8") have been taken out of service. CRCT has no present plans for returning these segments to service. However, if at any point in the future, these segments are reactivated, CRCT will conduct appropriate inspections, verification, and repairs prior to placing the line back into service. As you have previously requested, CRCT will provide PHMSA prior notice before returning these segments to service, along with a repair and startup plan.

ATTACHMENT TO RESPONSE
NOTICE OF PROBABLE VIOLATION

Item No. 2

2. **§195.452 Pipeline integrity management in high consequence areas.**

(f) What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:

(8) A process for review of integrity assessment results and information analysis by a person qualified to evaluate the results and information (see **paragraph (h)(2) of this section).**

Coffeyville did not have a review of integrity assessment results and information analysis by a person qualified to evaluate the results and information. Table 4.1 of Coffeyville's integrity management plan (IMP) identified ten company employees who are to be qualified. The IMP also identifies eight integrity management (IM) related tasks that are to be completed by those qualified employees. One of those IM tasks addressed the qualification of individuals who review integrity assessments and information analysis. Coffeyville did not demonstrate that any training or qualifications existed for any of the identified employees who reviewed integrity results. No documentation was provided that the individuals had the necessary knowledge, skills and abilities to make recommendations on remedial actions.

CRCT Response:

CRCT contests the alleged violations under this item. The Notice of Probable Violation alleges that CRCT failed to demonstrate that any of its employees engaged in reviewing integrity assessment results had the requisite training and qualifications. Section 195.452(f)(8) of DOT's regulations requires that CRCT have a process for review of integrity assessment results and information analysis by a person qualified to evaluate the results and information.

CRCT notes that Table 4.1 of CRCT's Integrity Management Plan (IMP) fully contemplates the use of a consultant as part of the integrity management team. The identified task of performing an inspection and preparing a report are assigned to the consultant. The identified task of evaluating the inspection results is a shared responsibility between the consultant and the CRCT pipeline maintenance foreman. In accordance with our IMP document, CRCT management has determined that the consultant (TDW Pipeline Services, a subsidiary of TD Williamson, Inc and Integrity Solutions, Ltd) possesses the requisite qualifications in education, work experience,

industry training, and certifications to perform the tasks assigned to it by CRCT. In general, CRCT requires that the consultant utilize personnel having an association with and training through NACE International (formerly the National Association of Corrosion Engineers). The qualifications of key individuals working for our consultants are included on the CD accompanying this response.

Furthermore, CRCT believes that its pipeline maintenance foreman and pipeline instrumentation supervisor possess the requisite training and qualifications to supervise the consultant, review integrity assessment results, and develop remedial actions to address pipeline defects and anomalies identified by the inspection. Our pipeline maintenance foreman has over 35 years of experience with the CRCT pipeline system, has participated in dozens of in-line inspections, and has completed hundreds of pipeline repairs. Our pipeline instrumentation supervisor has over 30 years of experience with the CRCT pipeline system and manages over 225 miles of cathodically protected pipe. All miles within HCAs are cathodically protected. As specified in the IMP document, these individuals are considered qualified through a process similar to the Operator Qualification Program. A copy of qualifications for the incumbent pipeline maintenance foreman and pipeline instrumentation supervisor is included on the CD accompanying this response.

Based on these facts, CRCT believes it has complied with the regulation and was in compliance at the time of CRCT's inspection. While we acknowledge that were unable to provide documentation of these qualifications at the time of the PHMSA inspection, the regulation does not require documentation. Therefore CRCT requests PHMSA to eliminate this allegation, or at the very least, mitigate the penalty.

While CRCT is contesting the alleged violations in this item, CRCT wishes to assure PHMSA that it is fully committed to ensuring its integrity management tasks are completed by duly qualified individuals. To that end, and as discussed more fully in Attachment B, CRCT is in the process of completely revising its IMP document and will ensure that all personnel having tasks assigned through the revised IMP receive the requisite training, including those personnel and consultants reviewing integrity assessment results and information analysis. CRCT has contracted with TDW Pipeline Services and Integrity Solutions, Ltd to revise the IMP. In the revised IMP document, CRCT will define who should review the integrity results and the qualifications, training, and experience required for such a review. The revised IMP will also define the content of the specific tasks listed as prerequisites for qualification.

ATTACHMENT TO RESPONSE
NOTICE OF PROBABLE VIOLATION

Item No. 3

CRCT does not contest this item.

Item No. 4

CRCT does not contest this item.

ATTACHMENT B

ATTACHMENT TO RESPONSE
COMPLIANCE ORDER
Item No. 1

In regard to Item Number 1 of the Notice pertaining to inadequate criteria for remedial actions to address integrity issues, Coffeyville shall develop criteria to determine remedial actions to address integrity issues raised by assessments and information analysis, and reevaluate the most current assessment reports for all pipelines. A plan and schedule will be submitted to this office that shows how the findings of the reevaluation will be verified. A statistically established number of verification and/or calibration activities shall be included. These compliance requirements will be completed within 90 days of the Final Order.

CRCT Response:

CRCT has completed this task. CRCT's internal procedure, RCP 6.02 ADM-001 (included on the CD accompanying this response), establishes the criteria to determine remedial actions to address integrity issues raised by assessments and information analysis. This procedure has been applied to all CRCT pipeline segments.

For each pipeline segment, Table 1 below lists the latest ILI run date, the date of the latest ILI evaluation or re-evaluation report, and the number of repairs made. CRCT's practice is to divide each ILI run into five sections of approximately equal length for verification and calibration of the tool response over the length of the run. Typically there are a sufficient number of repairs in each of these five sections to provide a statistically relevant verification and/or calibration of the ILI run. The calibration data from the repairs is used to iteratively determine if lesser anomalies should be upgraded for repair.

Details of these verification/calibration activities are available upon request for your review. The costs associated with the evaluation and repair of each pipeline segment are summarized in our response to Item No. 5 below.

TABLE 1

CRCT Pipeline Segment	Previous ILI Run Completion Date	Latest ILI Run Completion Date	Evaluation/ Re-evaluation Completion Date	Number of Anomalies Repaired (2010-2012)	Notes
Valley 6"	5/3/2005	6/23/2010	4/12/2011	27 Metal Loss 21 Dent (45 Digs)	Replaced 1280 ft of pipe for Walnut River and road crossings. Next ILI planned for June 2013
Valley 8"	5/2/2005	6/23/2010	4/13/2011	323 Metal 2 Dent (133 Digs)	Replaced 1850 ft of pipe around farm pond. Next ILI planned for June 2013
Hooser 8"	12/13/2005	6/29/2011	12/7/2011	98 Metal Loss 29 Dent 3 Planar (79 Digs)	Replaced 1000 ft of pipe at Cedar Creek crossing. Next ILI planned for June 2014
Shidler 4"	9/9/2008	9/3/2011	1/10/2012	11 Metal Loss 39 Dent (33 Digs)	Next ILI planned for Nov. 2014
Broome 12"	11/19/2007	11/29/2011	5/2/2012	1 Metal Loss 3 Dents (4 Digs)	Next ILI planned for Nov. 2014
Broome 16"		11/19/2010	2/2/2011	1 Dent	Next ILI planned for Nov. 2013
Humboldt 8"	10/1/2006	11/22/2011	2/29/2012	48 Metal Loss 25 Dents 10 Anomalies identified by ILI but with repairs (sleeves) made by previous operator. (60 Digs)	Leased line. Previous date was for Hydrostatic Test prior to CRCT operating the line. Next ILI planned for Nov. 2014
Plainville 6"	8/1/2008	9/24/2011	12/20/2011	32 Metal Loss 10 Dent (30 Digs)	Next ILI planned for Sept. 2014
Bartlesville 4"		9/11/2008	3/2/2009		Out of Service
Bartlesville 6"		12/6/2005	3/9/2006		Out of Service
Bartlesville 8"	11/16/2005	1/16/2011	3/17/2011	2 Metal Loss	Out of Service

ATTACHMENT TO RESPONSE
COMPLIANCE ORDER
Item No. 2

In regard to Item Number 1 of the Notice pertaining to inadequate criteria for remedial actions to address integrity issues, Coffeyville shall excavate any condition that meets the criteria for immediate conditions on all pipelines. Once exposed, each anomaly will be cleaned to sound metal and appropriate measurements will be documented. In the event the anomalies exceed the predicted dimensions, the report shall be re-evaluated appropriately. Any corrective measures will need to be performed immediately. These compliance requirements will be completed within 150 days of the Final Order.

CRCT Response:

CRCT has completed all repairs on all anomalies meeting the criteria for immediate conditions on all of its pipeline segments currently in service. Each anomaly was cleaned to sound metal and appropriate measurements were documented. The verification and calibration data from these anomalies were used to re-evaluate the ILI run data and, where warranted, additional anomalies were identified for repair. Records of these repair activities are available upon request for your review.

The three CRCT pipeline segments from Bartlesville to Broome (4", 6", and 8") have been taken out of service. CRCT has no present plans for returning these segments to service. However, if at any point in the future, these segments are reactivated, CRCT will conduct appropriate inspections, verification, and repairs prior to placing the line back into service. As you have previously requested, CRCT will provide PHMSA prior notice before returning these segments to service, along with a repair and startup plan.

The costs associated with the evaluation and repair of each pipeline segment are summarized in our response to Item No. 5 below.

ATTACHMENT TO RESPONSE
COMPLIANCE ORDER
Item No. 3

In regard to Item Number 2 of the Notice pertaining to having qualified personnel review of integrity assessment results and information analysis, Coffeyville shall have all personnel reviewing integrity assessment results and information analysis trained and qualified in accordance with the requirements of the Coffeyville integrity management plan. A plan will be submitted to this office that describes training and qualifications required and a schedule of the proposed training. These compliance requirements will be completed within 60 days of the Final Order.

CRCT Response:

CRCT is in the process of completely revising its Integrity Management Plan (IMP) document and expects to have completed the revision within 120 days. CRCT anticipates that all personnel having tasks assigned through the IMP will require training on the new document, including those personnel and consultants reviewing integrity assessment results and information analysis.

CRCT will submit a training plan and schedule as ordered. However, CRCT requests that the compliance date be set for 60 days following the completion of the revised IMP document.

ATTACHMENT TO RESPONSE
COMPLIANCE ORDER
Item No. 4

Coffeyville shall submit documentation of the completed compliance actions above within 30 days after their completion.

CRCT Response:

CRCT will submit the documentation as ordered.

ATTACHMENT TO RESPONSE
COMPLIANCE ORDER
Item No. 5

It is requested that Coffeyville maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to David Barrett, Director, Central Region, Pipeline and Hazardous Materials Safety Administration. It is requested that these costs be reported in two categories: 1) total cost associated with preparation/revision of plans, procedures, studies and analyses, and 2) total cost associated with replacements, additions and other changes to pipeline infrastructure.

CRCT Response:

To the extent that CRCT has already completed the evaluations and repairs identified in the proposed Compliance Order Item No. 1 and Item No. 2, the costs associated with these safety improvements since July 2010 are summarized in Table 2 below.

TABLE 2

CRCT Pipeline Segment	Plans, Procedures, Studies, and Analysis	Replacements, Additions, or Changes to Infrastructure	Notes
Valley 6" & 8"	$107,848	$1,331,635	
Hooser 8"	$246,430	$676,336	
Shidler	$73,204	$253,159	
Broome 12"	$61,874	$136,446	
Humboldt	$133,030	$283,918	
Plainville	$126,008	$112,694	
Bartlesville 4"			Out of Service
Bartlesville 6"			Out of Service
Bartlesville 8"	$49,452	$101,475	Out of Service
HCA Analysis, Risk Ranking Model, and IMP data gap analysis	$145,927	$0	
Pipeline Mapping	$11,634	$0	
ROW Clearing	$0	$33,138	

Documentation of these costs is maintained by CRCT and is available upon request for your review.

Additional costs will be incurred by CRCT in completing the revision of its IMP document and in training its personnel and consultants on the new document. CRCT will maintain documentation of such costs and submit an updated summary of the costs at the same time as the documentation of completion required in Item No. 4.

ATTACHMENT C

ATTACHMENT TO RESPONSE
NOTICE OF AMENDMENT
CPF 3-2012-5011M
Item No. 1

1. **§195.452 Pipeline integrity management in high consequence areas.**

(f) What are the elements of an integrity management program? An integrity management program begins with the initial framework. An operator must continually change the program to reflect operating experience, conclusions drawn from results of the integrity assessments, and other maintenance and surveillance data, and evaluation of consequences of a failure on the high consequence area. An operator must include, at minimum, each of the following elements in its written integrity management program:

§195.452(f)(1) A process for identifying which pipeline segments could affect a high consequence area;

Coffeyville's procedures did not adequately identify how pipe that could affect HCA's will be determined. Overland transport, water transport and the combination of the two are not addressed. In order to determine transport distances, spill volumes need to be established. These volumes need to be analyzed for transport distances as the topography dictates.

CRCT Response:

CRCT has incorporated spill volumes, topography, and overland/water transport into its analysis of how its pipelines could affect HCAs. A copy of Integrity Solutions report is included on the CD accompanying this response. The costs associated with completing this item are summarized on Table 2 of our response to Item 5 of the Proposed Compliance Order.

ATTACHMENT TO RESPONSE
NOTICE OF AMENDMENT
CPF 3-2012-5011M
Item No. 2

2. **§195.452(f) (See Item 1 above)**

§195.452(f)(1) A process for identifying which pipeline segments could affect a high consequence area;

Coffeyville's procedures did not address facilities and how they will be evaluated to determine if they could affect HCA's.

CRCT Response:

Work on this task is underway. As a preliminary matter, CRCT first undertook an extensive mapping program to accurately locate the pipeline and all pipeline facilities in order to acquire the necessary detailed topographic information to calculate the most probable release volumes and overland flow pathways to determine if the pipeline facilities could affect any HCAs.

CRCT has contracted with TDW Pipeline Services and Integrity Solutions, Ltd to complete this task and determine if the pipeline facilities could affect an HCA.

A map of the CRCT pipeline system and the associated facilities that are the subject of this task is included on the CD accompanying this response. Also included on the CD is a preliminary overview of the CRCT pipeline system overlain on a regional map of high consequence areas. Details of the mapping task completed to date are available upon request for your review. The costs incurred to date for our mapping program are summarized on Table 2 of our response to the proposed Compliance Order.

ATTACHMENT TO RESPONSE

NOTICE OF AMENDMENT
CPF 3-2012-5011M
Item No. 3

3. §195.452(1) (See Item 1 above)

§195.452 (f) (3) An analysis that integrates all available information about the integrity of the entire pipeline and the consequences of a failure (see paragraph (g) of this section);

Coffeyville's procedures did not define how all the available information about the integrity of the pipeline data will be integrated.

CRCT Response:

CRCT will include these procedures in its revised Integrity Management Plan (IMP) document. As discussed more fully in Attachment A, CRCT has contracted with TDW Pipeline Services and Integrity Solutions, Ltd to revise the IMP.

ATTACHMENT TO RESPONSE
NOTICE OF AMENDMENT
CPF 3-2012-5011M
Item No. 4

4. **§195.452(1) (See Item 1 above)**

§195.452 (f) (5) A continual process of assessment and evaluation to maintain a pipeline's integrity (see paragraph (j) of this section);

Coffeyville's procedures did not address how the continual assessment will be performed or how often it will be performed. Also, they did not identify the individuals or position of the individuals that will perform the continual assessment.

CRCT Response:

CRCT will include a procedure for the continual assessment and the individual(s) responsible for the assessment in a revised IMP document. As noted above, CRCT has contracted with TDW Pipe.ine Services and Integrity Solutions, Ltd to revise the IMP.

ATTACHMENT TO RESPONSE
NOTICE OF AMENDMENT
CPF 3-2012-5011M
Item No. 5

5. §195.452(f) (See Item 1 above)

§195.452 (f) (6) Identification of preventive and mitigative measures to protect the high consequence area (see paragraph (i) of this section);

Coffeyville's procedures did not address the need for assuring that all datasets used in the risk model are correctly identified or provide guidance on what to do if datasets are not available. Also, the procedures did not address how Coffeyville will evaluate the risks and consequences to HCA's for identification and implementation of preventive and mitigative measures.

CRCT Response:

CRCT has completely revised its risk ranking model. The modeling assumptions, input parameters, and results are included on the CD accompanying this response (Integrity Solutions report entitled *CVR Pipeline Risk Report*). The model was run on a regional, pipeline segment basis, and on an individual HCA segment basis. Both results are tabulated on the Integrity Solutions report, which is included on the CD accompanying this response. The costs associated with completing this item are summarized on Table 2 of our response to the proposed Compliance Order.

The revised risk model incorporates procedures for assuring that all datasets are used correctly in the risk model and provides guidance for applying the risk ranking algorithm in the absence of a dataset. These procedures will be referenced in the revised IMP document.

The revised IMP document will also address procedures for evaluating risks and consequences for the identification and implementation of preventive and mitigative measures. CRCT has contracted with TDW Pipeline Services and Integrity Solutions, Ltd to revise the IMP.

ATTACHMENT TO RESPONSE
NOTICE OF AMENDMENT
CPF 3-2012-5011M
Item No. 6

6. §195.452(1) (See Item 1 above)

§195.452 (f) (7) Methods to measure the program's effectiveness (see paragraph (k) of this section);

Coffeyville had not developed adequate procedures for measuring the effectiveness of their integrity program.

CRCT Response:

CRCT will include a procedure for measuring the effectiveness of its integrity program and incorporate it into the revised IMP. CRCT has contracted with TDW Pipeline Services and Integrity Solutions, Ltd to revise the IMP.

ATTACHMENT TO RESPONSE
NOTICE OF AMENDMENT
CPF 3-2012-5011M
Item No. 7

7. §195.452(1) (See Item 1 above)

§195.452 (f)(8) A process for review of integrity assessment results and information analysis by a person qualified to evaluate the results and information (see paragraph (h)(2) of this section).

Coffeyville's procedures did not define who should review the integrity results or the qualifications, training and experience that are required to be able to review integrity results. The Coffeyville IMP identified 8 tasks that an individual must complete to be qualified; however there were no procedures defining what the content of those eight tasks were.

CRCT Response:

CRCT will define who should review the integrity results and the qualifications, training, and experience required for such a review in the revised IMP document. The document will be expanded to define the content of the eight tasks listed as prerequisites for qualification. CRCT has contracted with TDW Pipeline Services and Integrity Solutions, Ltd to revise the IMP.

ATTACHMENT D

ATTACHMENT TO RESPONSE
ADDITIONAL INFORMATION

CRCT is presenting this information to demonstrate its commitment to improving pipeline safety. The scope, budget, and milestone schedule are entirely CRCT's internal estimates and expectations and should not be construed as part of CRCT's proposed compliance plan for matter CPF 3-2012-5010.

Details of these activities are available upon request for your review.

SCADA System Upgrades

CRCT has embarked on an extensive upgrade of its Supervisory Control and Data Acquisition System (SCADA) that will bring the system into conformance with current best practices in the industry. The upgrade will acquire additional pipeline system attributes and integrate the data from 16 pipeline stations that deliver crude oil to the system. In addition to improvements in supervisory control, the new system will improve CRCT's leak detection capabilities and inventory control.

CRCT has chosen Willbros as the principal contractor for this upgrade. Leak detection software is being provided by Atmos International. A schematic of the architectural design for the SCADA system and a publication describing the leak detection software are included on the CD accompanying this response. The leak detection software incorporates a corrected flow balance algorithm with statistical analysis to minimize false alarms without compromising sensitivity.

CRCT anticipates that the entire project will be completed by November 2012.

Other Pipeline Safety Improvements

Corrosion Mitigation

CRCT has implemented a number of steps to evaluate and mitigate both internal and external corrosion within its pipeline segments. CRCT has engaged qualified industry partners to assist with its efforts (Baker-Petrolite for microbial induced corrosion and cathodic protection and TDW Pipeline Services for internal inspection and interpretation). Highlights of the improvements made since April 2011 are as follows.

- Close interval, depth to cover, and center line surveys have been added to all ILI runs.
- Based on the analysis of this data, corrosion coupons are being installed on all segments of the pipeline. This work is anticipated to be completed in July 2012.
- Pigging runs for pipeline cleaning have been increased on all pipeline segments. Specific strategies for each segment of pipe have been developed by CRCT in consultation with TDW Pipeline Services. A procedure to catch a water sample from each pigging run has been developed in conjunction with Baker-Petrolite to determine bacterial content and potential mitigative approaches.
- An analysis of each pipeline segment has been completed. As of June 2012, the only pipeline segment with evidence of microbial activity is the out-of-service Bartlesville to Broome segment.

A program of microbial corrosion inhibitor treatment has been established for the tanks at both Broome and Bartlesville stations. Although the pipeline connecting these tanks is out of service, crude oil gathered in the Bartlesville area is stored temporarily at Bartlesville Station before being trucked to Broome Station. The corrosion inhibitor treatments are designed to prevent microbial induced corrosion associated with the Bartlesville area from spreading into CRCT's main pipeline segment from Broome Station to the Coffeyville refinery.

Documentation of Repairs

CRCT supervisors are now required to document every dig and every repair on a Maintenance Report in accordance with CRCT Regulatory Compliance Procedure 6.01 ADM-0003. CRCT's practice is to record on every repair "dig sheet" the starting footage and ending footage along with the number of anomalies, cross-referenced to the ILI report, present within that footage.

Risk Evaluation

After consulting with our vendor (TDW Pipeline Services), CRCT has decided to implement two programs to improve the risk assessment of its pipeline segments.

- Minimum standards have been developed with the vendor to ensure that ILI reports are specific, useful, and consistent with CRCT requirements. Each inspection is evaluated project-by-project and the scope of work and reporting standards are tailored for each run.
- Because CRCT repairs all anomalies identified from an ILI run, regardless of their location with respect to an HCA, CRCT does not require anomalies within HCAs to be specifically called out by the vendor. However, the GPS data from the ILI runs compared with the location of HCAs will be used in the future to evaluate pipeline risk within HCAs.
- An SMFL tool to evaluate the potential for seam failure was run on the Hooser 8" pipeline segment. Based on the difficulty in interpreting the results, the long length of time for the vendor to provide a quality assured report, and the relative lack of anomalies that were not readily identified by other inspection devices, CRCT has determined that the SMFL tool adds little to the risk evaluation matrix for its currently operating pipeline system. CRCT will re-evaluate this determination in the future on a case-by-case basis, or if CRCT places back into service any of the currently out-service Bartlesville pipeline segments.

Risk Mitigation

Through procedures developed by and in consultation with reputable outside vendors (TDW Pipeline Services and Baker-Petrolite), CRCT is implementing two on-going programs to mitigate future risks to the pipeline system.

- With the aid of our vendor (TDW Pipeline Services), a comparison is being made between subsequent and previous ILI runs when a new ILI survey is conducted on each pipeline segment. The comparisons will be used to identify any factors (burial depth, topography, etc.) that may be contributing to corrosion. CRCT's procedures have been revised to include close interval survey and depth to cover data in this analysis.
- Corrosion coupon, close interval survey, and depth to cover data can be integrated into our estimate of future corrosion rates. Data, particularly the corrosion coupon data, is being collected for these evaluations. Based on the trends identified by these evaluations, CRCT will be better able to identify and repair anomalies at any early stage that might otherwise be expected to reach critical thickness prior to the next ILI run.