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U.S. Department
of Transportation

Pipeline and
Hazardous Materials Safety
Administration

12300 W. Dakota Ave., Suite 110
Lakewood, CO 80228

**NOTICE OF PROBABLE VIOLATION
PROPOSED CIVIL PENALTY
and
PROPOSED COMPLIANCE ORDER**

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

April 20, 2009

Ms. Marie Sotak
Manager Pipeline Safety
Williams Gas Pipelines
2800 Post Oak Boulevard
Houston, TX 77056

CPF 5-2009-1003

Dear Ms. Sotak:

From June through August 2008, representatives of the Pipeline and Hazardous Materials Safety Administration (PHMSA) pursuant to Chapter 601 of 49 United States Code inspected Williams Gas Pipeline's (WGP's) procedures, records and pipeline facilities in the states of Georgia, Idaho, New Jersey, Texas, Utah, and Washington.

As a result of the inspections, it appears that you have committed probable violations of the Pipeline Safety Regulations, Title 49, Code of Federal Regulations. The items inspected and the probable violations are:

1., §192.323 Casing

Each casing used on a transmission line or main under a railroad or highway must comply with the following:

- (d) If vents are installed on a casing, the vents must be protected from the weather to prevent water from entering the casing.

WGP (WGP) has not adequately protected casing vents from the weather to prevent water from entering the casing. The Spokane District recently replaced some casing vents with plastic casings. Plastic casings were installed at valves 34-2 and 34-1. Field visits at valves 34-2 and 34-1 revealed that casing vents at these locations had been severed. This damage could potentially allow water to enter the casing through the severed location.

2. § 192.463 External corrosion control: Cathodic protection.

- (a) Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.

In Districts 120 and 130 of the Atlanta Division, the cathodic protection criteria of 0.85 volt is being used exclusively to evaluate annual pipe-to-soil potential values used to determine the adequacy of cathodic protection. The method used for consideration of IR drop was reference cell placement as described in William's procedure *Methods for IR Drop Consideration (Procedure 20.06.02.06)*. This method is being implemented by placing the reference cell directly over the pipeline or by burying permanent reference cells near the pipeline surface, both of which are intended to reduce the distance between the reference cell and the pipeline thereby in theory reducing IR drop through the soil.

It was determined that at many locations throughout Districts 120 and 130, reference cell placement is not an adequate means of taking into consideration the effects of IR drop in pipe-to-soil potential measurements.

Your procedure indicates that reference cell placement has the advantage of being "easy" but the disadvantage of being "in some cases, incompatible with multiple pipelines in one right-of-way". In Districts 120 and 130, you have four pipelines running in the same right-of-way. Some of these pipelines have coating that is in poor condition resulting in a relatively high current requirement for cathodic protection. This appears to be the type of scenario your procedure refers to as being incompatible with the reference cell placement technique of considering IR drop.

Your procedure also indicates that current interruption is the “best correction” for IR drop though it “requires installation of current interrupters, inconvenient”. PHMSA acknowledges that current interruption is the best technique for considering IR drop, where this method is feasible and practical.

In Districts 120 and 130 and throughout the rest of the Atlanta Division, Transco has conducted an extensive amount of current interrupted, close interval pipe-to-soil potential surveys. Current interrupted data is available and should be used for considering IR drop in Districts 120 and 130.

The following are examples of why reference cell placement was found to be an inadequate method of taking into consideration the effects of IR drop:

1. Mile Post 1023.424, Line B: Annual pipe-to-soil potentials are excessively high and not representative of the true potential; -7.165 volt on 1/9/2007 and -6.713 volt on 1/24/2008. These high values are apparently the result of reference cell placement within the voltage gradient of two continuous linear type anodes.
2. Mile Post 1137.666, Line C: Annual pipe-to-soil potentials exceed -0.85 volt but IR drop free “instant off” potentials from interrupted close interval survey (CIS) data indicate the -0.85 volt criterion is not being achieved. Recent annual data lists -0.854 volt on 1/13/2007 and -0.901 volt on 1/17/2008 with the most recent CIS data of 2/6/2004 showing -0.876 “on” and -0.513 “off” at this location. The CIS data demonstrates there is well over 300 mv of IR drop error in the measurements with current applied, making the “instant off” value of -0.513 more representative of the typical true pipe-to-soil potential at this location.
3. Mile Post 1073.393: This location has buried permanent reference cells as well as traditional above ground test stations. The following data was recorded during the field inspection:

Pipeline	Permanent Reference Cell	Above Ground Test Station
A	-2.99 volt	-2.469 volt
B	-4.36 volt	-1.957 volt
C	-3.97 volt	-2.587 volt
D	-3.51 volt	-3.690 volt

The potential values measured with the buried permanent reference cells are greater than those measured at the above ground test stations on three of the four pipelines. This data tends to indicate that there is a larger IR drop component in the buried permanent reference cell measurements than in the above ground test station measurements. This data does not support the concept of reference cell placement as a means of considering IR drop.

It was also noted that the cathodic protection database does not distinguish between permanent reference cell data and above ground test station data, compounding the difficulty in interpreting this data for IR drop considerations.

As another example, it was discovered during an inspection in Linden, NF, that in 2007, WGP performed an External Corrosion Direct Assessment on a portion of its 10 inch diameter Harrison Lateral. As part of this assessment, WGP conducted an instant-off close-interval survey that indicated several locations that had instant-off readings below the -0.850 volt criterion. In 2005, WGP performed a similar instant-off close-interval survey that also indicated there were several locations where the instant-off readings did not meet the criterion.

Even though WGP data demonstrated inadequate cathodic protection readings when IR-drop errors were eliminated, it took no action to verify the locations met one of the other acceptable NACE criteria. In addition, WGP excavated and recoated a number of locations as a part of the assessment work, yet did not verify the instant-off potential readings met criteria upon completion of remediation activities.

3. §192.463 External Corrosion Control: Cathodic Protection

Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in Appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.

Annual cathodic protection monitoring records showed that Appendix D criteria was not met for two consecutive years at the Franklin PUD meter Station at Mile post 30.58 (bypass outlet and outlet flange), Spokane West meter Station 7715+34 (Riser 6-inch regulator inlet), Milepost 9747+36 (Riser 6-inch header outlet, riser 6-inch outlet valve), and the Kettle Falls Meter station 8298+88.

IR free readings were as follows:

Location	2007 reading	2008 reading
Franklin PUD		
Bypass outlet	-0.806 V	-0.793 V
Outlet flange	-0.824 V	-0.468 V
Spokane West Meter Station		
Riser 6-inch inlet	-0.810 V	-0.846 V
Milepost 9747+36		
Riser 6-inch outlet	-0.511 V	-0.479 V
Riser 6-inch Valve	-0.625 V	-0.555 V
Kettle Falls Meter Station		
Blow off 2-inch north inlet	-0.717 V	-0.777 V
Riser 6-inch filter inlet	-0.627 V	-0.643 V
Riser 6-inch heater outlet	-0.606 V	-0.620 V
Riser 6-inch M/S inlet valve	-0.576 V	-0.582 V

Riser 6-inch header outlet	-0.567 V	-0.521 V
Riser 4-inch bypass outlet	-0.578 V	-0.599 V

4. §192.463 External Corrosion Control: Cathodic Protection

Each cathodic protection system required by this subpart must provide a level of cathodic protection that complies with one or more of the applicable criteria contained in Appendix D of this part. If none of these criteria is applicable, the cathodic protection system must provide a level of cathodic protection at least equal to that provided by compliance with one or more of these criteria.

In the Redmond District, cathodic protection does not comply with the criteria contained in Appendix D of Subpart I – Requirements for Corrosion Control. Pipe to soil readings in the following locations did not meet the negative 850 millivolt criteria for two consecutive years: Grays Harbor Meter station outside the entrance gate station 2588 + 30, 205 Ave SE station 15884+81, and City of Seattle Water line station 15962+62, and the Grays Harbor Lateral from Tilley Road station 736+48 to Thornberg Lane station 1056+00. WGP did not take any other data to determine if other Appendix D criteria such as 100 millivolt shift could be met in lieu of pipe to soil readings.

IR free pipe to soil readings were as follows:

Location	2007 reading	2008 reading
Grays Harbor meter station		
ST outside M/S entrance gate	-0.707 V	-0.675 V
205 Ave SE	-0.816 V	-0.720 V
City of Seattle water line	-0.802 V	-0.806 V
Tilley Road west side	-0.794 V	-0.682 V
Case Road SW west side	-0.782 V	-0.682 V
Kimme Road SW west side	-0.748 V	-0.694 V
I-5 East side	-0.796 V	-0.780 V
I-5 West side	-0.756 V	-0.690 V
150 ft east of north emergency man gate @ Tumwater CS	-0.673 V	-0.820 V
Gravel Quarry west side	-0.793 V	-0.794 V
Thornberg Lane	-0.738 V	-0.802 V

5. § 192.605 Procedural manual for operations, maintenance, and emergencies.

(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency

response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

WGP personnel did not follow their written repair procedures to correct a pipeline defect. In the Linden District, on February 20, 2007, WGP personnel were repairing two gouges discovered in the 26 inch diameter Mainline A that were identified from an in-line inspection. The gouges were located within MP 1828.139 and MP 1828.143. One of the gouges was successfully ground out by removing approximately 0.088" of the pipe's wall. While grinding out the second gouge, however, WGP personnel noted that "I attempted to feather out the second gouge, after removing 20-30 mils each time I would stop and check with NDT, somewhere between .160-.180 Mills I started to chase a hairline crack, it was then that we determined to clock spring this defect."

WGO written Procedure 70.14.01.15, Pipeline Repair, in Paragraph 5.1.4 states in bold type "CAUTION: Do not use composite sleeves to repair leaking defects or cracking." Paragraph 6.1.7.1 of the same procedure further states: "Do not use composite sleeve to repair leaks, cracks, or weld imperfections."

WGP repaired a known crack in the pipeline body with a composite sleeve in direct violation of its written procedures.

6. § 192.605 Procedural manual for operations, maintenance, and emergencies.

(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

WGP personnel did not follow their written repair procedures to correct a pipeline defect. WGP repaired a weld imperfection in the pipeline with composite sleeve in direct violation of its written procedures.

On February 23, 2007, WGP area personnel excavated the 26 inch diameter Mainline A pipeline at MP 1829.836 to examine and assess an area of corrosion reported from an in-line inspection. In addition to describing the corrosion found, personnel performing the examination noted that "also through the weld #6890 @9:30 found a .120" wall loss with a Incomplete Fusion or crack

like indication which failed Dye Penetrant and Mag Particle Test, Clock springs were then installed.”

7. § 192.605 Procedural manual for operations, maintenance, and emergencies.

(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

WGP personnel did not follow their written repair procedures to correct a pipeline defect. WGP repaired a weld imperfection in the pipeline with composite sleeve in direct violation of its written procedures.

On February 23, 2007, WGP personnel also excavated the 26 inch diameter Mainline A at MP 1827.950 to examine the pipeline for another area of ILI identified corrosion. In addition to describing the corrosion found, personnel performing the examination again noted that “however found a crack like indication or Incomplete Fusion on G/W #3030 and Clock Springs were installed which also covered areas of Corrosion that were in question.”

WGP written Procedure 70.14.01.15, Pipeline Repair, in Paragraph 6.1.7.1 states: “Do not use composite sleeve to repair leaks, cracks, or weld imperfections.”

8. § 192.605 Procedural manual for operations, maintenance, and emergencies.

(a) General. Each operator shall prepare and follow for each pipeline, a manual of written procedures for conducting operations and maintenance activities and for emergency response. For transmission lines, the manual must also include procedures for handling abnormal operations. This manual must be reviewed and updated by the operator at intervals not exceeding 15 months, but at least once each calendar year. This manual must be prepared before operations of a pipeline system commence. Appropriate parts of the manual must be kept at locations where operations and maintenance activities are conducted.

WGP failed to follow its procedures with respect to root cause failure analysis. During an inspection of the Cypress Division it was noted that WGP filed Incident Report No. 20060154, dated December 21, 2006 related to an internal corrosion incident. WGP procedure 20.11.01.06 Internal Corrosion Control: Inspection Schedule and Remedial Actions, section 10.0 Performing Remedial Actions, requires other actions to be taken within 1 year ranging from additional

remedial actions to no actions required. WGP policy 10.18.00.06 and procedure 10.18.01.08 Root Cause Analysis require that a RCA be conducted for all DOT Reportable incidents and assigns responsibility for the RCA to the V.P. Operations. No such actions were taken. The V.P., Larry Hjalmarson, responded to a query during this inspection that it was an error on their part.

In another example, WGP did not adequately ensure that its procedures were followed to ensure that all OQ tasks are accounted for on the projects. At the Cypress Division, it was noted that WGP provided Williams Gas Handling Plan Forms for two parts of an overall project, Anomaly Investigation/Repairs on 30" M/L "A" between Station 40 and Station 45 – Procedures #3 and #4. Neither procedure was followed with regard to identifying the person responsible, planned time and actual time of each of the events described beginning on page 3 of 6. The information was obtained later but not filled out per the procedure. Further, the Approvals stipulated on page 6 of 6 include Gas Control, but on no form reviewed indicated a Gas Control sign off on the form. The form also indicates the OQ tasks required on page 1 of 4 of the Forms Matrix but does not include Skill Block 5654, Perform Specific Gravity Test, even though the use of a Ranerax Gravimeter was required and used as part of the operation

Yet another example of procedures that are out of date follows: In Procedure 70.18.01 Minimizing, Mitigating and Monitoring Stress Corrosion Cracking, section 5.1.1.2 requires that each pipeline shall be monitored for SCC. Section 5.2.1.1 requires that when pipelines are exposed, a percentage of the excavated sites will be considered for magnetic particle inspection for cracking. However, the WGP Work Plan for the Anomaly Investigation/Repairs on 30" M/L "A" between Station 40 and Station 45 conducted in the fall of 2007 did not stipulate that Procedure 70.59.01 Stress Corrosion Cracking on page 7 needed to be followed related to the project. In addition, 70.59.01 has been revised and is now 70.18.01 so the WGP Work Plan was out of date. Further, this same procedure contains Appendix A with Table 1 SCC Integrity Program, which is badly out of date and needs to be updated on a regular basis.

In a final example, WGP did not follow its procedures regarding patrols. In the Cypress Division, one location identified on the "Divison ROW Stabilization Spreadsheet – Pipeline Exposures" indicated the Exposure Status as C Line as, "covered by landowner." Williams procedure 70.10.01.12, Performing Transmission Line Patrols, section 5.0 Encroachments, requires when excavation occurs without WGP monitoring, the location will either be excavated or an aboveground survey will be performed to determine the condition of the pipeline. Williams had not followed these procedures.

9. § 192.706 Transmission lines: Leakage surveys.

Leakage surveys of a transmission line must be conducted at intervals not exceeding 15 months, but at least once each calendar year. However, in the case of a transmission line which transports gas in conformity with §192.625 without an odor or odorant, leakage surveys using leak detector equipment must be conducted—

(a) In Class 3 locations, at intervals not exceeding 7 1/2 months, but at least twice each calendar year;

There is a Class 3 area between MP 328 and 328.5 that is not designated on the Williams drawing Sheet No. DOT-T-112, dated 9/19/2006. The photo on the drawing is from 9/1/2004. Based on WGP Land Patrol Reports, in 2006, the area was surveyed as part of their required Class 3 leak surveys only once on 11/28/2006 and not during their May surveys earlier in the year. The regulation requires that the area be surveyed twice each year not to exceed 7 1/2 months. In 2007, the area was never surveyed as part of their required Class 3 leak surveys. Thus far in 2008, the area was not surveyed as part of their required Class 3 leak surveys on the 5/28/2008 survey. The operator has not performed its Class 3 leak surveys according to the required frequency.

10. § 192.905 How does an operator identify a high consequence area?

(a) General. To determine which segments of an operator's transmission pipeline system are covered by this subpart, an operator must identify the high consequence areas. An operator must use method (1) or (2) from the definition in §192.903 to identify a high consequence area. An operator may apply one method to its entire pipeline system, or an operator may apply one method to individual portions of the pipeline system. An operator must describe in its integrity management program which method it is applying to each portion of the operator's pipeline system. The description must include the potential impact radius when utilized to establish a high consequence area. (See appendix E.I. for guidance on identifying high consequence areas.)

As described in Item 1 above, there is a Class 3 area between MP 328 and 328.5 that is not designated on the Williams drawing Sheet No. DOT-T-112, dated 9/19/2006. The photo on the drawing is from 9/1/2004. Per § 192.905 requirements, Williams needs to identify its high consequence areas.

Proposed Civil Penalty

Under 49 United States Code, § 60122, you are subject to a civil penalty not to exceed \$100,000 for each violation for each day the violation persists up to a maximum of \$1,000,000 for any related series of violations. The Compliance Officer has reviewed the circumstances and supporting documentation involved in the above probable violation(s) and has recommended that you be preliminarily assessed a civil penalty of \$192,600 as follows:

<u>Item number</u>	<u>PENALTY</u>
5	\$64,200
6	\$64,200
7	\$64,200

Warning Items

With respect to item numbers 2, 8, and 10 we have reviewed the circumstances and supporting documents involved in this case and have decided not to conduct additional enforcement action or penalty assessment proceedings at this time. We advise you to promptly correct this item. Be advised that failure to do so may result in WGP being subject to additional enforcement action.

Proposed Compliance Order

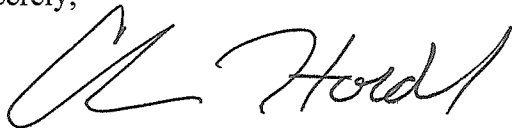
With respect to item numbers 1, 3, 4, 5, 6, 7, and 9 pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration proposes to issue a Compliance Order to Williams Gas Pipeline (WGP). Please refer to the *Proposed Compliance Order*, which is enclosed and made a part of this Notice.

Response to this Notice

Enclosed as part of this Notice is a document entitled *Response Options for Pipeline Operators in Compliance Proceedings*. Please refer to this document and note the response options. Be advised that all material you submit in response to this enforcement action is subject to being made publicly available. If you believe that any portion of your responsive material qualifies for confidential treatment under 5 U.S.C. 552(b), along with the complete original document you must provide a second copy of the document with the portions you believe qualify for confidential treatment redacted and an explanation of why you believe the redacted information qualifies for confidential treatment under 5 U.S.C. 552(b). If you do not respond within 30 days of receipt of this Notice, this constitutes a waiver of your right to contest the allegations in this Notice and authorizes the Associate Administrator for Pipeline Safety to find facts as alleged in this Notice without further notice to you and to issue a Final Order.

In your correspondence on this matter, please refer to **CPF 5-2009-1003** and for each document you submit, please provide a copy in electronic format whenever possible.

Sincerely,



Chris Hoidal
Director, Western Region
Pipeline and Hazardous Materials Safety Administration

Enclosure: *Response Options for Pipeline Operators in Compliance Proceedings*

PROPOSED COMPLIANCE ORDER

Pursuant to 49 United States Code § 60118, the Pipeline and Hazardous Materials Safety Administration (PHMSA) proposes to issue to Williams Gas Pipeline (WGP) a Compliance Order incorporating the following remedial requirements to ensure the compliance of WGP with the pipeline safety regulations:

1. In regard to Item Number 1 of the Notice pertaining to the casing vents, WGP must repair or eliminate the casing vents installed near valves 34-2 and 34-1 and provide documentation of the repairs. Additionally, WGP must submit documentation demonstrating that a review all of the installed casings in the Spokane North and South Districts has been completed and all damaged casing vents have been repaired or eliminated such that §192.323(d) requirements are met.
2. In regard to Item Number 3 of the Notice pertaining to inadequate cathodic protection per § 192.463 requirements, WGP must test, evaluate and where necessary, enhance their cathodic protection system to comply with Appendix D criteria and submit to the Western Region Office adequate documentation to demonstrate compliance.
3. In regard to Item Number 4 of the Notice pertaining to inadequate cathodic protection per § 192.463 requirements, WGP must test, evaluate and where necessary, enhance their cathodic protection system to comply with Appendix D criteria and submit to the Western Region Office adequate documentation to demonstrate compliance.
4. WGP must complete Item Numbers 1, 3, and 4 within six months of receipt of a Final Order.
5. In regard to Item Number 5, within 30 days of receipt of the Final Order, WGP must submit a plan to repair the pipeline defect located within MP 1828.139 and MP 1828.143 on the 26 inch diameter Mainline A pipeline. The repair plan should reflect use of accepted industry standards for pipeline repair methods. WGP must complete the repair within 90 days or receipt of the final order. Once the repair is complete, WGP must submit documentation of the repair to the Western Region Office within 30 days thereafter.
6. In regard to Item Number 6, within 30 days of receipt of the Final Order, WGP must submit a plan to repair the pipeline defect located at approximately MP 1829.836 on the 26 inch diameter Mainline A pipeline. The repair plan should

reflect use of accepted industry standards for pipeline repair methods. WGP must complete the repair within 90 days or receipt of the final order. Once the repair is complete, WGP must submit documentation of the repair to the Western Region Office within 30 days thereafter.

7. In regard to Item Number 7, within 30 days of receipt of the Final Order, WGP must submit a plan to repair the pipeline defect located at approximately MP 1827.950 on the 26 inch diameter Mainline A pipeline. The repair plan should reflect use of accepted industry standards for pipeline repair methods. WGP must complete the repair within 90 days or receipt of the final order. Once the repair is complete, WGP must submit documentation of the repair to the Western Region Office within 30 days thereafter.
8. In regard to Item Number 9 of the Notice pertaining to the failure to conduct a leak survey per § 192.706 requirements, Williams Gas Pipeline must conduct a leak survey of the Class 3 area between MP 328 and 328.5. Upon completion of the survey Williams Gas Pipeline must submit documentation indicating the results of the survey and any mitigation plans to the Western Region Office. Item Number 9 of the Notice must be completed within three months of receipt of a Final Order.
10. WGP shall maintain documentation of the safety improvement costs associated with fulfilling this Compliance Order and submit the total to Chris Hoidal, Director, Western Region, Pipeline and Hazardous Materials Safety Administration. Costs shall 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.