NiSource Gas Transmission & Storage®

1700 MacCorkle Avenue SE
Charleston, WV 25314

Direct: 304.357.2548
Fax: 304.357.3804
mikehoffman@nisource.com

Perry Michael Hoffman
Manager – System Integrity

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Mr. Byron E. Coy, PE
Director, Eastern Region
United States Department of Transportation
Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety
Eastern Region – New Jersey District Office
820 Bear Tavern Road, Suite 306
West Trenton, NJ 08628

RE: Response to Notice of Probable Violation and Proposed Civil Penalty CPF 1-2012-1014

Dear Mr. Coy:

This letter is provided on behalf of Millennium Pipeline Company, L.L.C. ("Millennium") and NiSource Gas Transmission & Storage ("NGT&S") in response to Notice of Probable Violation, CPF 1-2012-1014 ("NOPV"), which was dated May 21, 2012, and received by NGT&S on May 23, 2012. The NOPV was issued following inspections conducted by the New York State Department of Public Service between July 12, 2008 and August 12, 2010 of Millennium and NGT&S facilities. Six items were noted in the NOPV and a civil penalty of $197,900 was proposed for the six items.

Within this correspondence, NGT&S has provided responses to the NOPV for your consideration. As described below, NGT&S and Millennium have aggressively addressed the issues raised in the NOPV. In addition, numerous additional integrity assurance measures have been implemented to confirm and ensure the ongoing integrity of the Millennium pipeline. As a result, we have elected to waive our right to a hearing and we respectfully request consideration of our efforts and request elimination or reduction in the proposed penalty. In addition, NGT&S agrees to comply with the conditions of the Proposed Compliance Order.

The following communication addresses both the findings detailed within the NOPV and the requirements specified in the accompanying Compliance Order. We believe that the actions we have taken warrant consideration in issuing of a final order and we request consideration of elimination or reduction of the proposed penalty in recognition of the aggressive actions taken and the additional integrity measures implemented.

Details for addressing the individual items noted in the NOPV are outlined below. The language from the NOPV is provided in bold, followed by a brief description of actions taken by NGT&S and Millennium to address each respective item.

1. **§ 192.481 Atmospheric corrosion control: Monitoring.**
   Each operator must inspect each pipeline or portion of pipeline that is exposed to the atmosphere for evidence of atmospheric corrosion, as follows:

If the pipeline is: is located:	Then the frequency of inspection is:
Onshore	At least once every 3 calendar years, but with intervals not exceeding 39 months

During the NYS DPS 2010 review of CGT's records, the frequency of inspection, for the inspection for evidence of atmospheric corrosion of asset 224360 (valve set mainline group - Route *202*/Algonquin interconnect), exceeded the 39 month interval by 33 days. The inspection dates noted for the atmospheric corrosion inspection of asset 224360 are *02/13/2007* and *06/16/2010.*

Response

NGT&S utilizes a work management system to schedule inspections and other work along the pipeline system. Following the inspection, a root cause investigation identified that the atmospheric corrosion inspection for the Route 202/Algonquin interconnect valve setting was assigned to a work group rather than to an individual. As a result, the applicable employee was not able to view the work order when it was issued. Work orders for atmospheric inspections are now only assigned to individual employees responsible for completion of the work.

2. **§ 192.455 External corrosion control: Buried or submerged pipelines installed after July 31, 1971.**
   (a) Except as provided in paragraphs (b), (c), and (I) of this section, each buried or submerged pipeline installed after July 31, 1971, must be protected against external corrosion, including the following:
   (2) It must have a cathodic protection system designed to protect the pipeline in accordance with this subpart, installed and placed in operation within 1 year after completion of construction.

During the NYS DPS 2010 review of CGT's records, CGT failed to have a cathodic protection system designed to protect the pipeline in accordance with this subpart, installed and placed in operation within I year after completion of construction for the 30-inch Millennium (East) pipeline that was put into service in 2007 and 2008 as noted below.

The NYS DPS 20 I 0 review of CGT DOT Compliance Report records indicated the following for the dates noted:

Segment	In Service Date	Record Date	Comment
Hancock to Tuxedo gate stations. (Approximately 67 miles)	**12/22/2008**	**12/19-28/2009**	**CP system not fully installed on multiple test stations Pipe to soil readings below – 0.85 V**
Tuxedo to Sloatsburg (5.5 miles)	**11/19/2007**	**12/28/2009**	**Pipe to soil readings below - 0.85 mV**
		12/21/2009 – 01/15/2010	**CP system not fully installed on multiple test stations**
		02/10/2010	**B 1432835 - rectifier not yet installed**
		04/07/2010	**B 1510400 - rectifier not yet installed**
		06/1 0/2010	**BI637337 - unit not yet installed - will read when installed**
Sloatsburg to Ramapo (3.6 miles)	**2/8/2008**	**12/21/2009 – 01/15/2010**	**CP system not fully installed on multiple test stations**

Response

There are 24 impressed current groundbeds installed to provide cathodic protection (CP) for the 30 inch Millennium pipeline. All of the groundbeds are fully energized and operating. The initial installation of the CP system was completed for the majority of the pipeline system by December of 2009. However, due to delays in receiving electrical service, installation of a few rectifiers was delayed, with the last one energized in June of 2010.

NGT&S and Millennium have taken numerous steps since installation of the CP system to ensure that the entire Millennium pipeline has adequate cathodic protection. While the compliance of a CP system is often determined based on test point readings taken at intervals often as long as 1 mile, a close interval survey (CIS) was completed in July and August of 2010 after the CP system was energized. This CIS provided measurements taken at approximately 3 ft intervals along the entire 173 miles of the Millennium pipeline. Based on the CIS, approximately 157 miles were shown to meet and approximately 17 miles of pipeline appeared not to meet CP criteria. It is important to note that due to natural telluric currents making it difficult to achieve a de-polarized state, all testing has been performed to meet a static off criteria of more negative than -850 millivolts. The high resolution of the CIS (3-ft interval) and the -850 millivolt static off criteria provide for a very conservative benchmark in establishing the adequacy of cathodic protection.

Based on the initial CIS, several remedial measures were implemented, including the investigation and mitigation of station grounding shorts and foreign interferences, as well as re-balancing of system rectifiers. A follow-up CIS was conducted in June of 2011 to evaluate the effectiveness of the mitigation. Further testing, investigations and adjustments were made to the CP system throughout the remainder of 2011 and early 2012. By April of 2012, the combined results of all CIS (initial and re-runs) indicated a total of 2.7 mile of pipeline that still appeared to not meet the CP criteria. Further CP system adjustments were made and a follow-

up CIS was completed in April of 2012. The survey indicates that there are approximately 12 areas ranging in length from 5 feet to 2,170 feet (that total less than one mile) that still require the implementation of additional mitigative measures.

Factors including the presence of high resistivity soils, the non-homogeneous nature of the soil the pipeline transverses, telluric current activity and NY State restrictions that limit the nature of the CP facilities installed has made it very difficult to demonstrate adequate CP on the remaining sections of the pipeline. Attachment A provides a more detailed summary of the CP system installation and history and further details the nature of many of these factors.

3. **§ 192.171 Compressor stations: Additional safety equipment.**
   (d) Each compressor station gas engine that operates with pressure gas injection must be equipped so that stoppage of the engine automatically shuts off the fuel and vents the engine distribution manifold.

   Three CGT gas compressor units at the Sparrowbush open air compressor station are not capable of automatically venting the compressor engine distribution manifold during a normal compressor engine shutdown.

   During the NYS DPS field inspection of CGT facilities in August 2010, representatives of CGT Millennium East stated that three temporary compressor units installed in early 2009 along Line K at the Sparrowbush compressor station will automatically shut off the fuel to the compressor engines and vent the compressor unit engine distribution manifold only during an emergency shutdown of the compressor station.

   At other times, the shut off of fuel to the compressor unit engines is a manual process that does not automatically vent the compressor engine distribution manifold. When a stop signal is received from this manually initiated process, the fuel is shut off to the compressor unit engines, and the compressor unit engine ignition system stays on for several seconds to allow the compressor unit engine to continue running to burn the remaining fuel in the engine itself. The distribution manifold is not vented.

   Response
   The gas compressor units at Sparrowbush Compressor Station were temporary units and have since been retired and removed from service. The NGT&S compressor engine specifications are being reviewed to ensure that they contain provisions such that any new or leased natural gas powered compressor units installed are equipped such that, when the unit stops running, the fuel is automatically shut off and the engine distribution manifold is automatically vented.

4. **§ 192.303 Compliance with specifications or standards.**
   Each transmission line or main must be constructed in accordance with comprehensive written specifications or standards that are consistent with this part.

CGT failed to follow its pipeline construction specification PLS-6.1.2 which states that "Bending procedures and equipment shall not cause damage to external and/or internal coatings. If, in the opinion of the Company representative, coating protection is required, padded bending dies for bending machines shall be furnished at no additional cost."

The bending and handling technique used by CGT resulted in damaged pipe coating. CGT was installing a pipeline from Ramapo, NY, to Coming, NY, that includes 186 miles of 30 inch, X-70 pipe, coated with fusion bonded epoxy (FBE). In July 2008, NYS DPS representatives inspected the piping and noted that portions of the pipe coating were damaged. The NYS DPS took photos of coating damaged during the bending process at Dean Creek Road, Jay Rumsey Road; and, the coating was damaged due to pipe mishandling near Parker Road.

Response

NGT&S has implemented numerous measures to ensure the integrity of the 30 inch Millennium pipeline. The 30 inch portions of the Millennium pipeline were installed with modern mill applied fusion bonded epoxy coating (considered state-of-the-art). Two part epoxy was applied to all field joints. In addition, a holiday detection test was completed after lowering in of the pipeline and any defects found during that time were repaired prior to backfilling. A direct current voltage gradient (DCVG) survey was performed over the pipeline in July and August of 2009 to locate coating defects after the pipeline was backfilled. Based upon the DCVG survey, several coating anomaly indications were investigated. Based upon the investigation digs, only minor coating anomaly indications were found on the pipeline, mostly attributed to minor nicks in the coating.

In addition to the DCVG survey, in-line inspections were completed along the 30 inch Millennium pipeline. A high resolution geometry / deformation tool in concert with a high resolution magnetic flux leakage tool was used to inspect sections from Corning Compressor Station to Bush Hill, from Bush Hill to Huguenot and from Westtown to Ramapo on 7/14/2011, 4/10/2012 and 4/5/2012 respectively. The final report has been received for the section of the pipeline from Corning to Bush Hill and preliminary reports have been received and reviewed on the other two sections of pipeline. No actionable metal loss or deformation indications were found. The above reaffirms the overall integrity of the Millennium pipeline.

5. **§ 192.305 Inspection: General.**
   Each transmission line or main must be inspected to ensure that it is constructed in accordance with this part.

Pursuant to § 192.319 (a) and § 192.319 (b), CGT constructed a pipeline that was not inspected to ensure that it met the requirements for installation of pipe in a ditch.
In July 2008, the NYS DPS representatives observed conditions that indicated a lack of inspection for a CGT construction project that involved the installation of 186 miles of 30 inch, X-70 pipe, with fusion bonded epoxy (FBE) coating, installed from Ramapo, NY to Coming, NY.

In July 2008, NYS DPS representatives walked about a mile of pipe on Spread I, at station 10443 +30 that had been lowered into the ditch. The following issues were noted:

There was damaged pipe coating where the pipe appeared to have struck a piece of rock in the side of the ditch when the pipe was installed in the ditch. The NYS DPS inspector notified the operator about the damaged coating, and the pipe was lifted up and a pipe coating repair was made.

The pipe pads installed under the pipe in the ditch, to protect the pipe coating from damage, had moved from under the pipe to the side of the pipe in the ditch. NYS DPS representatives contacted CGT representatives and the padding was put back under the pipe.

On *7/18/2008,* the CGT contractor was "jeeping" the pipe but there was no inspector for CGT on site during the "jeeping" operation.

On *7/18/2008,* the CGT contractor was lowering / placing the pipe in the ditch, but there was no inspector for CGT on site to observe that operation. NYS DPS was told by the CGT Chief Inspector that a CGT inspector was on the construction site, but NYS DPS did not see any CGT inspector on site to observe the operation.

On *7/25/2008,* the NYS DPS representatives were onsite to inspect Spread II. The following issues were noted:

The CGT contractor was lowering the pipe into the ditch, but there was no inspector for CGT on site to observe that operation. The foam padding under the pipe had moved out of position, apparently from previous water in the ditch, and was not protecting the pipe coating. NYS DPS representatives contacted CGT representatives and the padding was put back under the pipe.

Response

Millennium did hire third party inspection to ensure the quality of the pipeline construction; however, it is difficult to address individual circumstances from almost four years ago. That said, integrity assessment activities performed since completion of construction confirm the integrity of the Millennium Pipeline.

As discussed, a holiday detection test was completed after lowering in of the pipeline and any defects found during that time were repaired prior to backfilling. A direct current voltage gradient (DCVG) survey was performed over the pipeline in July and August of 2009 to locate coating defects after the pipeline was backfilled. Based upon the DCVG survey, several coating anomaly indications were investigated. Based upon the investigation digs, only minor coating anomaly indications were found on the pipeline, mostly attributed to minor nicks in the coating.

In addition to the DCVG survey, in-line inspections were completed along the 30 inch Millennium pipeline. A high resolution geometry / deformation tool in concert with a high resolution magnetic flux leakage tool was used to inspect sections from Corning Compressor Station to Bush Hill, from Bush Hill to Huguenot and from Westtown to Ramapo on 7/14/2011, 4/10/2012 and 4/5/2012 respectively. The final report has been received for the section of the

pipeline from Corning to Bush Hill and preliminary reports have recently been received and reviewed on the other two sections. No actionable metal loss or deformation anomaly indications were found. The above reaffirms the overall integrity of the Millennium pipeline.

6. **§ 192.241 Inspection and test of welds.**
   (a) Visual inspection of welding must be conducted by an individual qualified by appropriate training and experience to ensure that:
   (1) The welding is performed in accordance with the welding procedure; and
   (2) The weld is acceptable under paragraph (c) of this section.

   CGT did not perform a visual inspection of the welding done for two pipeline repairs. NYS DPS representatives were on site for the entire repair of the two welds listed below. There was no CGT welding inspector on site for any step in the weld repair process.

   One weld repair done on July 12, 2008, for Spread I on Moss Hill, and one weld repair done on August 1, 2008, for Spread II weld number ARX-482, Station 14033+03.

   Response
   Millennium did hire third party inspection to ensure the quality of the pipeline construction; however, it is difficult to address individual circumstances from almost four years ago. That said, integrity assessment activities performed since completion of construction confirm the integrity of the Millennium Pipeline.

   In-line inspections were completed along the 30 inch Millennium pipeline that is capable of verifying the integrity of the girth welds. A high resolution geometry / deformation tool in concert with a high resolution magnetic flux leakage tool was used to inspect sections from Corning Compressor Station to Bush Hill, from Bush Hill to Huguenot and from Westtown to Ramapo on 7/14/2011, 4/10/2012 and 4/5/2012 respectively. The final report has been received for the section of the pipeline from Corning to Bush Hill and preliminary reports have been received and reviewed on the other two sections.

   Girth weld indications are prioritized by the ILI vendor. NGT&S and Millennium completed girth weld investigation digs at seven locations on the section of the Millennium pipeline from Corning Compressor Station to Bush Hill. Radiographic testing was completed at each girth weld investigated. Each of the girth welds was found to meet acceptability criteria and no repairs were necessary. Once the final reports are received from the Bush Hill to Huguenot and Westtown to Ramapo sections, at least three girth welds indications from each of these sections of the pipeline will be investigated. These additional investigations will be completed during 2012. The findings to date continue to reaffirm the overall integrity of the Millennium pipeline.

As detailed within this correspondence, NGT&S and Millennium have aggressively addressed the issues raised in the NOPV. In addition, numerous integrity assurance measures have been implemented and are ongoing to confirm and ensure the integrity of the pipeline. As a result, we have elected to waive

our right to a hearing and we respectfully request consideration of our efforts and request elimination or reduction in the proposed penalty.

If you have any questions or would like additional information, please do not hesitate to contact me.

Sincerely,

Perry M. Hoffman
Manager – System Integrity
NiSource Gas Transmission & Storage

Attachment A

Millennium Pipeline
Cathodic Protection History and Remedial Plan

Millennium Pipeline
Cathodic Protection History and Remedial Plan

CP Installation and History

A close interval survey (CIS) was completed along the Millennium Pipeline in July and August of 2010. The areas primarily influenced by the Route 17 rectifier were not completed as part of the initial CIS because of a delay in establishment of third party electrical service. The initial CIS covered 173 miles with 157 miles of pipeline meeting cathodic protection (CP) criteria and 17 miles of pipeline that did not appear to meet criteria.

Remediation measures, including the following, were implemented:

- Investigation and mitigation of station grounding short at Wagoner M&R Station
- Investigation and mitigation of foreign CP system interference
- Rebalancing rectifiers at higher output levels to achieve cathodic protection

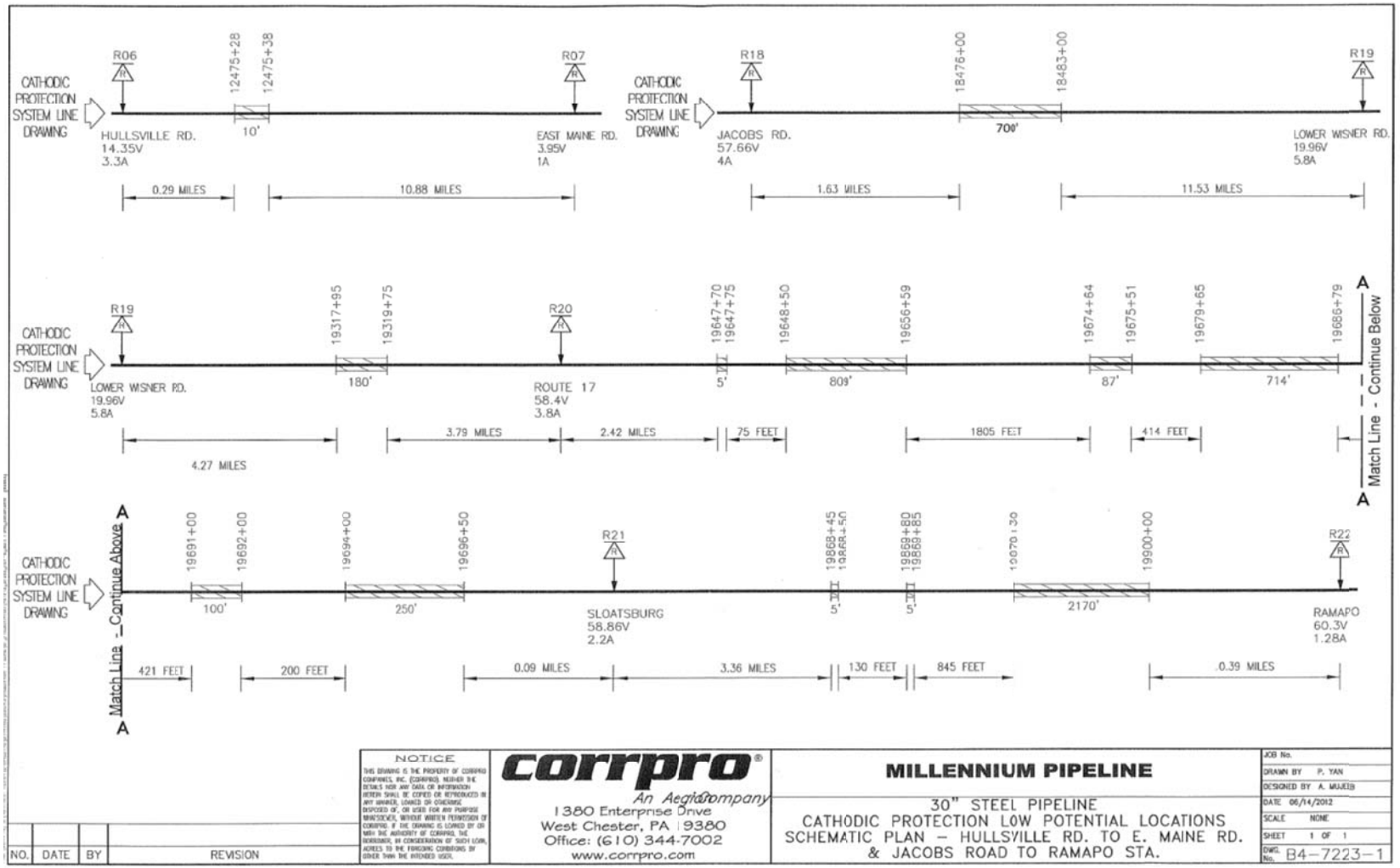
Following implementation of the above measures, a follow-up CIS was performed in June 2011 to evaluate the effectiveness of the mitigation and to verify adequate CP for the area primarily influenced by the Route 17 rectifier. NGT&S contractors (Corrpro) investigated and confirmed telluric current activity along sections of the pipeline in August and September 2011. As a result, a native potential survey of the Millennium Pipeline was determined impracticable because of the continuous variability of the telluric currents. Corrpro continued working to adjust the CP system to provide cathodic protection along the entire length of the pipeline throughout the remainder of 2011 and early 2012.

By April 2012, combined results of all CIS (initial and re-runs) indicated a total of 2.7 miles of pipeline that still did not meet criteria.

The rectifiers were again adjusted and the entire system was rebalanced, after which a follow-up CIS was conducted between the NY 17 Rectifier and Ramapo to determine if the remedial measures were effective. The survey indicated that there are several small areas that still may not meet a -850 millivolt off CP criteria (see chart below).

Millennium Pipeline
Cathodic Protection History and Remedial Plan

Depiction of Areas Not Meeting an -0.85 Volt off Cathodic Protection Criteria



Millennium Pipeline
Cathodic Protection History and Remedial Plan

The areas east of NY Route 17 are proving troublesome to demonstrate adequate CP because of high resistivity soil characteristics. Since rectifier current flow has an inverse relationship with the path resistance (the ground between the anodes and the pipeline), high resistivity soils can greatly hinder current flow to some sections of the pipeline. Further difficulties were encountered during commissioning in that the non-homogeneous nature of the soils create the possibility that while increasing current to ensure cathodic protection along the entire pipeline, resulting high voltage potentials in areas close to groundbed locations increase interference with foreign pipelines and can, over time, damage Millennium's pipeline coating. Additionally, the high telluric current activity makes it nearly impossible to perform depolarization testing of the pipeline to demonstrate cathodic protection through the more accurate and less conservative 100 mV polarization shift.

The design and installation of the groundbeds at Sloatsburg and Ramapo were hindered by the New York state permitting process and location restrictions in Harriman State Park. Initial system design was changed to accommodate the State's requirements which led to a less than optimal design of the systems.

Remediation Plan and Schedule

A meeting with Corrpro was held on Thursday June 14, 2012 to discuss the results of the recent re-survey and to update plans for further remediation. The plan is to address the specific issue at Station 12475+28 (~10' of low potential) through interference testing with the foreign pipeline (NYSEG) that crossing in the immediate vicinity. Installation of a bonding test station or current draining test station will be a likely outcome of this testing. .

The low area at 18476+00 (~700' of low potential) and at 19317+95 (~180' of low potential) will be retested after increasing the outputs of the rectifiers at Jacobs Rd, Lower Wisner Road, and Route 17. It's expected that rebalancing these units will remediate the low potentials. NGT&S is currently coordinating with Corrpro to complete this work and retest the areas.

The remaining areas showing possibly inadequate cathodic protection (all east of station 19647+70) will require engineering due to rocky, high resistivity natural soils throughout the region and right of way. The plan is to utilize the CP contractor (Corrpro) to design and reconfigure all or part of the groundbeds at Ramapo and Sloatsburg to more efficiently push current to the pipeline where needed.

The remediation planning for all sections east of station 19647+70 has begun and review, planning, and permitting are planned with cathodic protection system construction proceeding as soon as possible. Resurvey to document adequate cathodic protection will be completed as soon as mitigation projects are completed.