

July 24, 2013

**VIA ELECTRONIC FILING**

Ms. Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, D.C. 20426

Re: NERC Spreadsheet Notice of Penalty Filing – Supplemental Information  
FERC Docket No. NP13-41-000

On June 27, 2013, the North American Electric Reliability Corporation (NERC) submitted a Spreadsheet Notice of Penalty filing. The Spreadsheet Notice of Penalty filing included violations<sup>1</sup> in a settlement agreement between ReliabilityFirst Corporation and several FirstEnergy subsidiaries.<sup>2</sup> NERC is hereby submitting this supplemental filing to provide additional information regarding the settlement agreement, which is attached to this filing. The purpose of the additional information is to aid Commission review of the Spreadsheet Notice of Penalty violations and to provide further explanation of the resolution of the violations with a non-monetary sanction.

**Background of the Violations**

The Spreadsheet Notice of Penalty violations were of PRC-005-1 R1 and R2 and PRC-011-0 R2. The violations cover a range of issues from documentation shortcomings to failure to implement the maintenance and testing program. A brief summary of the violations is included below.

---

<sup>1</sup> NERC Violation IDs RFC2011001109, RFC2011001126, RFC2011001127, RFC2011001128, RFC2011001129, RFC2011001130, RFC2011001131, RFC2011001132, RFC2011001220, and RFC2012011388.

<sup>2</sup> Jersey Central Power & Light Company (Jersey Central), Ohio Edison Company, The Toledo Edison Company, FirstEnergy Generation Corp.(FE Genco), American Transmission Systems, Incorporated (ATSI), Monongahela Power Company (Monongahela), Allegheny Energy Supply Company (AE Supply), and Metropolitan Edison Company (MetEd) (collectively, the FirstEnergy entities).

3353 Peachtree Road NE  
Suite 600, North Tower  
Atlanta, GA 30326  
404-446-2560 | [www.nerc.com](http://www.nerc.com)

Spreadsheet Notice of Penalty Supplemental Filing  
July 24, 2013  
Page 2

Jersey Central could not provide evidence that it conducted testing of its current transformers (CTs) and potential transformers (PTs) or DC Control Circuitry. According to its maintenance and testing program (Program), Jersey Central conducts testing of its CTs and PTs as well as DC control circuitry at the same time as its relays; however, it did not document testing of its CTs and PTs. Jersey Central can provide relay testing records that document the date Jersey Central performed functional testing of its DC control circuitry. Jersey Central also did not perform testing on 6 of its 4,760 (.1%) Protection System devices.

Ohio Edison and Toledo Edison both performed maintenance and testing outside the intervals included in the Program (20 days and 6 months, respectively).

FE Genco did not perform testing on 9 battery units within the intervals included in its Program. However, FE Genco performed all monthly battery maintenance and testing as required by its Program.

ATSI could not locate documentation for 96 Protection System devices, but believes those documents were lost in its transition from paper to digital record keeping. Further, ATSI did not properly schedule maintenance and testing within its Program's interval. For Undervoltage Load Shedding (UVLS) devices, ATSI could not locate testing records for 1 out of 65 UVLS relays.

AE Supply did not perform maintenance and testing on 18 relays (out of 420) within its 3-year interval, followed manufacturer's maintenance and testing procedures rather than its own Program's procedures (however, both were very similar), and could not provide the last date on which it performed maintenance and testing on its CTs and PTs.

MetEd could not demonstrate that it performed testing on CTs and PTs and DC control circuitry. All of the above-listed violations were discovered from August through October of 2011 via Compliance Audits, Self-Certifications, and a Self-Report.

### **Penalty Considerations**

ReliabilityFirst considered FirstEnergy's progress in managing compliance with the requirements associated with these violations. During the fourth quarter of 2011, FirstEnergy initiated a practice to conduct monthly assessments of all documentation associated with completed work orders affecting protection system components. These assessments provide a process to identify and correct current work performance or documentation deficiencies. Additionally, these assessments allow for critical self-evaluation, feedback, and management oversight relative to identifying potential areas for improvement associated with program documentation practices.

FirstEnergy also revised its transmission Protection System maintenance and testing program on January 1, 2013 in order to support the consolidation of Protection System maintenance and testing programs from multiple FirstEnergy registered transmission entities. The consolidated Program helps ensure

consistency of maintenance and testing intervals and practices across FirstEnergy. This is another reason why a non-monetary sanction was more appropriate in this context. Fining FirstEnergy for a prior program has less of a deterrence value under the circumstances at issue.

Appendix 4B of the NERC Rules of Procedure expressly states that the imposition of sanctions is not limited to monetary penalties. Non-monetary sanctions may be applied with the objective of promoting reliability and compliance with the Reliability Standards. With the ultimate goal of compliance and reliability at the forefront, ReliabilityFirst determined that an expanded spot check would be a more appropriate sanction for the subject violations. The parties refer to this as an expanded spot check because it is larger in scope than a traditional spot check for the reasons described below.

As set forth in paragraphs 41 and 68 of the settlement agreement, during the fourth quarter of 2013, ReliabilityFirst will perform an expanded spot check on any one of the following FirstEnergy Registered Entities: 1) Jersey Central; 2) Ohio Edison; 3) Toledo Edison Company; 4) ATSI ; 5) Monongahela Power Company; or 6) MetEd. ReliabilityFirst has the discretion to choose which FirstEnergy affiliated Registered Entity will be subject to the expanded spot check. Therefore, all six FirstEnergy entities must prepare for the possibility of being spot checked. Also, the sample size of maintenance and testing records that are subject to this spot check is expanded from the traditional sample size. During a Compliance Audit, ReliabilityFirst typically requests approximately thirty maintenance and testing records as a sample size. During the FirstEnergy expanded spot check, ReliabilityFirst will request a larger sample size of maintenance and testing records which, although not yet finalized, will be at least twice as large as a traditional sample size. ReliabilityFirst will request records for all types of Protection System devices maintained and tested from January 1, 2012 until the date of the expanded spot check. ReliabilityFirst will conduct the expanded spot check of the FirstEnergy affiliated Registered Entity in accordance with Section 3.3 of the *NERC Compliance Monitoring and Enforcement Program*.

The expanded spot check allows ReliabilityFirst to see firsthand that FirstEnergy is conducting its maintenance and testing properly, as well as properly documenting its maintenance and testing. If ReliabilityFirst discovers additional instances of non-compliance at the expanded spot check, FirstEnergy faces additional exposure, which is a significant risk imposed upon FirstEnergy.

Based upon the information provided in the settlement agreement, the Spreadsheet Notice of Penalty, and the details herein, NERC approved the settlement agreement. The sanction imposed on the FirstEnergy entities is appropriate for the violations and circumstances at issue, and is consistent with NERC's goal to promote and ensure reliability of the bulk power system.

Spreadsheet Notice of Penalty Supplemental Filing  
July 24, 2013  
Page 4

Please contact the undersigned with any questions regarding the submittal.

Respectfully submitted,

/s/ Edwin Kichline

Edwin Kichline  
Senior Counsel and Associate Director,  
Enforcement Processing  
North American Electric Reliability  
Corporation

cc: ReliabilityFirst Corporation  
The FirstEnergy Entities

Enclosure: Settlement Agreement between ReliabilityFirst Corporation and the FirstEnergy Entities

# RELIABILITY FIRST

<i>In re:</i> JERSEY CENTRAL POWER & LIGHT COMPANY	)	Docket Nos.	RFC2011001109;
	)		RFC2011001126;
	)		RFC2011001127;
OHIO EDISON COMPANY	)		RFC2011001128;
	)		RFC2011001129;
THE TOLEDO EDISON COMPANY	)		RFC2011001130;
	)		RFC2011001131;
	)		RFC2011001132;
FIRSTENERGY GENERATION CORP.	)		RFC2011001220; and
	)		RFC2012011388
	)		
AMERICAN TRANSMISSION SYSTEMS, INCORPORATED	)		
	)		
MONONGAHELA POWER COMPANY	)		
	)		
ALLEGHENY ENERGY SUPPLY COMPANY	)		
	)		
<i>and</i>	)		
	)		
METROPOLITAN EDISON COMPANY	)		
	)		
	)		
NERC Registry ID Nos.	)	NERC Reliability Standards:	
NCR00806;	)		PRC-005-1, Requirement 2;
NCR00856;	)		PRC-005-1, Requirement 1; and
NCR00930;	)		PRC-011-0, Requirement 2
NCR00782;	)		
NCR00686;	)		
NCR10200;	)		
NCR02600;	)		
and	)		
NCR00821	)		

---

**SETTLEMENT AGREEMENT  
AMONG  
RELIABILITYFIRST CORPORATION  
AND  
JERSEY CENTRAL POWER & LIGHT COMPANY, OHIO EDISON COMPANY, THE  
TOLEDO EDISON COMPANY, FIRSTENERGY GENERATION CORP., AMERICAN  
TRANSMISSION SYSTEMS INCORPORATED, MONONGAHELA POWER  
COMPANY, ALLEGHENY ENERGY SUPPLY COMPANY, AND METROPOLITAN  
EDISON COMPANY**

---

**I. INTRODUCTION**

1. ReliabilityFirst Corporation (“ReliabilityFirst”), Jersey Central Power & Light Company (“Jersey Central”), Ohio Edison Company (“Ohio Edison”), The Toledo Edison Company (“Toledo Edison”), FirstEnergy Generation Corp. (“FE Genco”), American Transmission Systems, Incorporated (“ATSI”), Monongahela Power Company (“Monongahela”), Allegheny Energy Supply Company (“AE Supply”) and Metropolitan Edison Company (“MetEd”) (collectively, the “FirstEnergy Entities”), enter into this Settlement Agreement (“Agreement”) to resolve alleged violations of the following Reliability Standards:

Registered Entity	Violation ID Number	Standard and Requirement
<b>Jersey Central</b>	<b>RFC2011001109</b>	PRC-005-1, R2
<b>Ohio Edison</b>	<b>RFC2011001126</b>	PRC-005-1, R2
<b>Toledo Edison</b>	<b>RFC2011001127</b>	PRC-005-1, R2
<b>FE Genco</b>	<b>RFC2011001128</b>	PRC-005-1, R2
<b>ATSI</b>	<b>RFC2011001129</b>	PRC-005-1, R2
<b>Monongahela</b>	<b>RFC2011001130</b>	PRC-005-1, R1
<b>AE Supply</b>	<b>RFC2011001131</b>	PRC-005-1, R1
<b>AE Supply</b>	<b>RFC2011001132</b>	PRC-005-1, R2
<b>MetEd</b>	<b>RFC2011001220</b>	PRC-005-1, R2
<b>ATSI</b>	<b>RFC2012011388</b>	PRC-011-0, R2

2. The FirstEnergy Entities and ReliabilityFirst agree and stipulate to this Agreement in its entirety. The facts stipulated herein are stipulated solely for the purpose of resolving between the FirstEnergy Entities and ReliabilityFirst the subject matter of this Agreement and do not constitute admissions or stipulations for any purpose. The FirstEnergy Entities neither admit nor deny that the facts stipulated herein constitute violations of Reliability Standards PRC-005-1, R2, PRC-005-1, R1, and PRC-011-0, R2.

### *Overview of the FirstEnergy Entities*

3. The FirstEnergy Entities are FirstEnergy Corp. (“FirstEnergy”) affiliated companies. FirstEnergy is a diversified energy company headquartered in Akron, Ohio. FirstEnergy serves approximately six million customers in Ohio, Pennsylvania, New Jersey, New York, West Virginia, and Maryland.
4. Jersey Central serves northern and central New Jersey and operates 778 miles of transmission lines. Ohio Edison serves central and northeastern Ohio while Toledo Edison serves northern Ohio. Both Ohio Edison and Toledo Edison operate distribution systems. FE Genco owns and operates ten FirstEnergy generating facilities with a total generating capacity of approximately 8,200 megawatts. ATSI serves portions of north and central Ohio, as well as western Pennsylvania and operates 1,199 miles of 345kV transmission line and 3,776 miles of 138 kV transmission line. Monongahela serves West Virginia and owns, or jointly owns, and operates generating facilities with a total generating capacity of approximately 5,170 megawatts. AE Supply serves portions of West Virginia, Pennsylvania, and Maryland and owns, or jointly owns, and operates generating facilities with a total generating capacity of approximately 6,481 megawatts. MetEd serves southern and southeastern Pennsylvania and operates approximately 1,405 miles of transmission line.
5. The FirstEnergy Entities are registered on the North American Electric Reliability Corporation (“NERC”) Compliance Registry for a number of functions in the Reliability *First* region.<sup>1</sup> In their respective capacity as GOs, TOs, and DPs, the FirstEnergy Entities are subject to compliance with Reliability Standards PRC-005-1 and PRC-011-0.

## **II. ALLEGED VIOLATIONS**

### **A. PRC-005-1, R2 (RFC2011001109, RFC2011001126, RFC2011001127, RFC2011001128, RFC2011001129, RFC2011001132 and RFC2011001220)**

6. PRC-005-1 ensures that all transmission and generation Protection System devices affecting the reliability of the bulk power system are timely maintained and tested.
7. A violation of PRC-005-1, R2 has the potential to affect the reliable operation of the bulk power system because without timely maintenance and testing,

---

<sup>1</sup> Jersey Central is registered as a Transmission Owner (“TO”) Distribution Provider (“DP”), Generator Owner (“GO”), Load Serving Entity (“LSE”), and Purchasing-Selling Entity (“PSE”). Ohio Edison is registered as a DP, LSE, and PSE. Toledo Edison is registered as a DP, LSE, and PSE. FE Genco is registered as a Generator Operator (“GOP”) and GO. ATSI is registered as a TO. Monongahela and AE Supply are both registered as GOPs and GOs. MetEd is registered as a TO, DP, LSE, and PSE.

Protection System devices may misoperate or fail to operate when needed.

8. PRC-005-1, R2 states:

**R2.** Each [TO] and any [DP] that owns a transmission Protection System and each [GO] that owns a generation Protection System shall provide documentation of its Protection System maintenance and testing program and the implementation of that program to its Regional Reliability Organization on request (within 30 calendar days). The documentation of the program implementation shall include:

**R2.1.** Evidence Protection System devices were maintained and tested within the defined intervals.

**R2.2.** Date each Protection System device was last tested/maintained.

9. ReliabilityFirst alleges that the FirstEnergy Entities, with the exception of Monongahela who does not have an alleged violation of PRC-005-1, R2, could not provide evidence demonstrating they maintained and tested all their Protection System devices pursuant to PRC-005-1, R2.

*Risk Considerations and Violation Duration (RFC2011001109)*

10. From October 4, 2011, through October 7, 2011, ReliabilityFirst conducted a compliance audit of Jersey Central (“Jersey Central Compliance Audit”). During the Jersey Central Compliance Audit, ReliabilityFirst determined Jersey Central, in its capacity as a GO, could not provide evidence demonstrating that it conducted maintenance and testing on its current transformers and voltage transformers (“CTs and PTs”) or DC control circuitry. Specifically, Jersey Central stated it tested its CTs and PTs at the time it calibrated its relays, however ReliabilityFirst could not verify this statement as Jersey Central did not document its test results. ReliabilityFirst could not verify Jersey Central tested its DC control circuitry as Jersey Central only provided dates of functional tests, not test results. During the Jersey Central Compliance Audit, ReliabilityFirst also determined Jersey Central, in its capacity as a TO and DP, could not provide test results for CTs and PTs or DC control circuitry.
11. Prior to the Jersey Central Compliance Audit, on August 2, 2011, Jersey Central self-reported a possible violation of PRC-005-1, R2.1. See Self Report Form - 2011 (attached as **Attachment A**). Jersey Central reported that, in its capacity as a GO, it had not performed quarterly battery maintenance and testing for one battery installation at its Yards Creek Generating station during the second quarter of 2011. Further, in its capacity as a TO and DP, Jersey Central reported that it could not locate documentation demonstrating it performed scheduled



maintenance and testing within its defined interval for two relay schemes, consisting of five Protection System devices, at its West Wharton substation.<sup>2</sup>

12. The duration of these alleged violations is from June 18, 2007, the date Jersey Central had to comply with PRC-005-1, R2, until August 5, 2011, the date Jersey Central completed and documented the test results for all necessary maintenance and testing of the Protection System devices at issue.
13. The risk posed by the foregoing facts and circumstances was mitigated by the following factors.<sup>3</sup> Jersey Central represents that it conducted testing of its CTs and PTs during relay calibration but neglected to document the test results. Further, Jersey Central represents it conducted functional tests on its DC control circuitry and provided *ReliabilityFirst* with a list of the dates on which it represents it performed the functional tests. Additionally, while Jersey Central missed quarterly testing of batteries at its Yards Creek Generating station, it did perform monthly battery testing pursuant to its maintenance and testing program (“Program”). Finally, upon testing of the batteries approximately two months after its quarterly interval, Jersey Central determined the batteries had no performance issues during the duration of the alleged violation.
14. In light of the nature of the alleged violations, offset by the aforementioned mitigating factors, *ReliabilityFirst* determined that these alleged violations posed a minimal risk to the reliability of the bulk power system.

*Risk Considerations and Violation Duration (RFC2011001126)*

15. On September 30, 2011, Ohio Edison self-certified four instances of possible non-compliance with PRC-005-1, R2. See PRC-005-1 Self Certification (attached as **Attachment B**). Ohio Edison self-certified that it identified four relay schemes associated with the Gates Ohio Edison Distribution substation for which it could not locate documentation demonstrating that it completed maintenance and testing within the five year and six month interval listed in its Program.<sup>4</sup> Specifically, Ohio Edison could not locate documentation demonstrating it completed

---

<sup>2</sup> Jersey Central has approximately 4,760 Protection System devices on its system consisting of 2,550 relays, 400 associated communication systems, 830 CTs and PTs, 150 station batteries, and 830 DC control circuits.

<sup>3</sup> PRC-005-1, R2.1 and R2.2 have a Violation Risk Factor (“VRF”) of “High” consistent with the VRF Matrix promulgated by NERC. Applying the Violation Severity Level (“VSL”) Matrix promulgated by NERC, *ReliabilityFirst* determined that the facts and circumstances of this violation warranted a “Lower” VSL.

<sup>4</sup> Ohio Edison has approximately 8,900 Protection system devices consisting of 5,100 relays, 250 associated communication systems, 1,700 CTs and PTs, 150 station batteries, and 1,700 DC control circuits.

maintenance and testing on the four relay schemes at issue between 2005 and September 30, 2010.

16. The duration of the alleged violation is from September 10, 2010, the date by which Ohio Edison should have performed maintenance and testing pursuant to its Program, until September 30, 2010, the date upon which Ohio Edison completed maintenance and testing on the four relay schemes at issue.
17. The risk posed by the foregoing facts and circumstances was mitigated by the short duration of this alleged violation.<sup>5</sup> Ohio Edison performed maintenance and testing on the four relay schemes at issue twenty days outside of its required interval. Upon performing maintenance and testing, Ohio Edison determined the relay schemes at issue would have performed appropriately during the duration of the alleged violation.
18. In light of the nature of the alleged violation, offset by the aforementioned mitigating factors, ReliabilityFirst determined that this alleged violation posed a minimal risk to the reliability of the bulk power system.

*Risk Considerations and Violation Duration (RFC2011001127)*

19. On September 30, 2011, Toledo Edison self-certified five instances of possible non-compliance with PRC-005-1, R2. See PRC-005-1 Self Certification (attached as **Attachment C**).<sup>6</sup> Toledo Edison identified one instance where it performed a DC control circuit functional test on November 11, 2003, and subsequently performed the functional test on August 2, 2010, thereby exceeded the six year and six month interval listed in its Program.<sup>7</sup>
20. The duration of the alleged violation is from February 11, 2010, the date by which Toledo Edison should have performed the DC control circuit functional test at

---

<sup>5</sup> PRC-005-1, R2.1 has a VRF of "High" consistent with the VRF Matrix promulgated by NERC. Applying the VSL Matrix promulgated by NERC, ReliabilityFirst determined that the facts and circumstances of this violation warranted a "Lower" VSL.

<sup>6</sup> In its self-certification, Toledo Edison stated that it could not locate documentation demonstrating it completed four breaker functional tests within the interval listed in its Program. Specifically, Toledo Edison could not locate documentation demonstrating it completed the functional tests on the four breakers between June 2004 and June 2009. However, Registered Entities are not required to produce records of maintenance and testing activities conducted prior to June 18, 2007. In such cases, a Registered Entity may rely on records of maintenance and testing conducted pursuant to a subsequent interval, which Toledo Edison can provide. Therefore, ReliabilityFirst determined no possible violation exists for the four breaker functional tests Toledo Edison included in its self-certification.

<sup>7</sup> Toledo Edison has approximately 3,290 Protection system devices consisting of 1,770 relays, 250 associated communication systems, 590 CTs and PTs, 90 station batteries, and 590 DC control circuits.

issue, until August 2, 2010, the date by which Toledo Edison completed the functional test at issue.

21. The risk posed by the foregoing facts and circumstances was mitigated by the fact that upon testing, Toledo Edison found the DC control circuit at issue to be intact, functional, and in proper working order.<sup>8</sup> Therefore, the DC control circuit would have functioned properly during the duration of the alleged violation.
22. In light of the nature of the alleged violation, offset by the aforementioned mitigating factors, ReliabilityFirst determined that this alleged violation posed a minimal risk to the reliability of the bulk power system.

*Risk Considerations and Violation Duration (RFC2011001128)*

23. On September 30, 2011, FE Genco self-certified possible non-compliance with PRC-005-1, R2.1. See PRC-005-1 Self Certification (attached as **Attachment D**). FE Genco reported that on four instances at its Bay Shore generating station, it performed maintenance and testing on two Protection System battery units outside the defined intervals of its Program.<sup>9</sup> Specifically, FE Genco did not perform impedance testing within its two year interval on two battery units and did not perform bi-monthly testing, which consisted of checking battery water levels and taking samples, on two battery units. Additionally, on March 21, 2012, FE Genco discovered that on one instance, it did not perform impedance testing on seven battery units at its Mansfield generating station.
24. The duration of the alleged violation is from February 28, 2010, the date by which FE Genco should have completed impedance testing on one of its units, until April 27, 2012, the date FE Genco completed all the necessary maintenance and testing on the seven battery units at its Mansfield Generating Station.<sup>10</sup>
25. The risk posed by the foregoing facts and circumstances was mitigated by the fact that, as it concerns the units at issue in the missed bi-monthly battery tests, FE Genco performed all required monthly battery maintenance and testing as

---

<sup>8</sup> PRC-005-1, R2.1 has a VRF of "High" consistent with the VRF Matrix promulgated by NERC. Applying the VSL Matrix promulgated by NERC, ReliabilityFirst determined that the facts and circumstances of this violation warranted a "Lower" VSL.

<sup>9</sup> FE Genco has approximately 785 Protection system devices consisting of 670 relays, 0 associated communication systems, 35 CTs and PTs, 45 station batteries, and 35 DC control circuits.

<sup>10</sup> FE Genco should have completed impedance testing on the two units by February 28, 2010 and May 31, 2010 respectively, and should have completed bi-Monthly maintenance and testing by March 31, 2011 and May 31, 2011 respectively. FE Genco completed all testing on maintenance and testing on the two batteries at its Bay Shore generating station on September 29, 2011.

required by its Program.<sup>11</sup> FE Genco represents that it had no performance issues with the battery units at issue during the duration of the alleged violation. Additionally, upon completion of maintenance and testing of the units at issue, FE Genco determined each unit was in proper working order throughout the duration of the alleged violation.

26. In light of the nature of the alleged violation, offset by the aforementioned mitigating factors, ReliabilityFirst determined that this alleged violation posed a minimal risk to the reliability of the bulk power system.

*Risk Considerations and Violation Duration (RFC2011001129)*

27. On September 30, 2011, ATSI self-certified possible non-compliance with PRC-005-1, R2.1. See PRC-005-1 Self Certification (Attached as **Attachment E**). ATSI self-certified that it could not demonstrate that it performed maintenance and testing on twelve relay schemes, consisting of ninety-six Protection System devices, and could not locate documentation demonstrating it performed sixty-six breaker functional tests within the five year and six month interval listed in its Program.<sup>12</sup> In forty-four instances involving six relay schemes and thirty-eight breaker functional tests, ATSI could not locate documentation demonstrating it completed maintenance and testing within its interval from September 2004 to September 2009. Additionally, in six instances involving the six remaining relay schemes, ATSI cannot locate documentation demonstrating it completed maintenance and testing from March 2004 to 2010.<sup>13</sup> In the remaining twenty-eight instances involving breaker functional tests, ATSI did not properly schedule maintenance and testing, which resulted in ATSI scheduling or performing maintenance and testing outside the defined interval.
28. The duration of the alleged violation is from June 18, 2007, the date ATSI was required to comply with PRC-005-1, R2, until December 31, 2012, the date ATSI completed all maintenance and testing of the relay schemes and breaker functional tests at issue.

---

<sup>11</sup> PRC-005-1, R2.1 has a VRF of "High" consistent with the VRF Matrix promulgated by NERC. Applying the VSL Matrix promulgated by NERC, ReliabilityFirst determined that the facts and circumstances of this violation warranted a "Lower" VSL.

<sup>12</sup> ATSI has approximately 17,780 Protection system devices consisting of 9,870 relays, 1,010 associated communication systems, 3,290 CTs and PTs, 320 station batteries, and 3,290 DC control circuits.

<sup>13</sup> ATSI performed testing on the six relay schemes at issue between April 2010 and September 2010.

29. The risk posed by the foregoing facts and circumstances was mitigated by the following factors.<sup>14</sup> The incidents involving missing maintenance and testing records are a documentation issue. ATSI represents that it performed the maintenance and testing, but believes the maintenance and testing records at issue were lost during its transition from a paper based legacy work management process to its current digital process. Additionally, ATSI completed all breaker functional tests between August 27, 2010 and December 31, 2012, which revealed all equipment was in proper working order throughout the duration of the possible violation.
30. In light of the nature of the alleged violation, offset by the aforementioned mitigating factors, ReliabilityFirst determined that this alleged violation posed a moderate risk to the reliability of the bulk power system.

*Risk Considerations and Violation Duration (RFC2011001132)*

31. From September 12, 2011, to October 3, 2011, ReliabilityFirst conducted a compliance audit of AE Supply ("AE Supply Compliance Audit"). During the AE Supply Compliance Audit, ReliabilityFirst determined that AE Supply could not provide sufficient evidence to demonstrate it implemented its Program pursuant to PRC-005-1, R2. ReliabilityFirst discovered that the completed maintenance and testing AE Supply recorded in test records was inconsistent with its Program. Specifically, ReliabilityFirst determined AE Supply was following manufacturer's maintenance and testing procedures, not the maintenance and testing procedures detailed in its Program.<sup>15</sup> Additionally, AE Supply also could not provide evidence demonstrating it performed maintenance and testing for eighteen Protection System relays within its three year interval.<sup>16</sup> Finally, AE Supply could not provide the last date on which it performed maintenance and testing on its CTs and PTs.<sup>17</sup>
32. The duration of the alleged violation is from June 18, 2007, the date AE Supply was required to comply with PRC-005-1, R2, until December 14, 2014, the date

---

<sup>14</sup> PRC-005-1, R2.1 has a VRF of "High" consistent with the VRF Matrix promulgated by NERC. Applying the VSL Matrix promulgated by NERC, ReliabilityFirst determined that the facts and circumstances of this violation warranted a "Lower" VSL.

<sup>15</sup> Allegheny Power's Program states that maintenance and testing may be performed based upon manufacturer's recommended frequency, but does not state maintenance and testing procedures should be based upon manufacturer's recommendations for maintenance and testing.

<sup>16</sup> AE Supply has approximately 510 Protection system devices consisting of 420 relays, 0 associated communication systems, 30 CTs and PTs, 30 station batteries, and 30 DC control circuits.

<sup>17</sup> AE Supply only performed maintenance and testing on its CTs and PTs upon installation.

by which AE Supply will complete maintenance and testing on the Protection System devices at issue in this alleged violation.

33. The risk posed by the foregoing facts and circumstances was mitigated by the fact that the manufacturer's maintenance and testing procedures were very similar to those maintenance and testing activities described within AE Supply's Program.<sup>18</sup> The difference between AE Supply's Program and the manufacturer's maintenance and testing procedures was that AE Supply's Program had not been updated to include maintenance and testing for one type of battery.
34. In light of the nature of the alleged violation, offset by the aforementioned mitigating factors, ReliabilityFirst determined that this alleged violation posed a moderate risk to the reliability of the bulk power system.

*Risk Considerations and Violation Duration (RFC2011001220)*

35. From October 4, 2011 to October 7, 2011, ReliabilityFirst conducted a compliance audit of MetEd ("MetEd Compliance Audit"). During the MetEd Compliance Audit, ReliabilityFirst determined MetEd could not provide sufficient evidence to demonstrate it completed maintenance and testing of its CTs and PTs and DC control circuits pursuant to PRC-005-1, R2.<sup>19</sup> MetEd represented that it measured and tested its CTs and PTs up to 2010, but could not provide test records demonstrating it completed the maintenance and testing. Additionally, MetEd represented that it performed maintenance and testing of its DC control circuits during breaker testing, but could not provide records that it completed this testing.
36. The duration of the alleged violation is from June 18, 2007, the date MetEd had to comply with PRC-005-1, R2, until June 30, 2013, the date by which MetEd will complete the necessary maintenance and testing on the Protection System devices at issue.
37. The risk posed by the foregoing facts and circumstances was mitigated by the fact that the alleged violation is a documentation issue.<sup>20</sup> MetEd represents that it

---

<sup>18</sup> PRC-005-1, R2.1 and R2.2 have a VRF of "High" consistent with the VRF Matrix promulgated by NERC. Applying the VSL Matrix promulgated by NERC, ReliabilityFirst determined that the facts and circumstances of this violation warranted a "Lower" VSL.

<sup>19</sup> MetEd has approximately 3,570 Protection system devices consisting of 1,910 relays, 250 associated communication systems, 635 CTs and PTs, 140 station batteries, and 635 DC control circuits.

<sup>20</sup> PRC-005-1, R2.1 and R2.2 have a VRF of "High" consistent with the VRF Matrix promulgated by NERC. Applying the VSL Matrix promulgated by NERC, ReliabilityFirst determined that the facts and circumstances of this violation warranted a "Lower" VSL.

performed maintenance and testing at issue, but does not have the records to demonstrate testing as its Program, in effect until 2010, did not require MetEd maintain those maintenance and testing records.

38. In light of the nature of the alleged violation, offset by the aforementioned mitigating factors, ReliabilityFirst determined that this alleged violation posed a moderate risk to the reliability of the bulk power system.

*Mitigating Actions (RFC2011001109, RFC2011001126, RFC2011001127, RFC2011001128, RFC2011001129, RFC2011001132, and RFC2011001220)*

39. On December 11, 2012, Jersey Central, Ohio Edison, Toledo Edison, and FE Genco represented that each completed the necessary mitigating activities associated with the alleged violations of PRC-005-1, R2. On January 4, 2013, ATSI represented it completed the necessary mitigating activities associated with its alleged violation of PRC-005-1, R2. Jersey Central, Ohio Edison, Toledo Edison, FE Genco, and ATSI shall submit evidence demonstrating each completed the described mitigating activities.
40. On January 7, 2013, AE Supply and MetEd submitted mitigation plans describing the activities each would complete in order to address the alleged violations of PRC-005-1, R2. Specifically, AE Supply and MetEd will complete the necessary maintenance and testing associated with each entities respective alleged violation of PRC-005-1, R2 by June 30, 2014.<sup>21</sup> On January 10, 2013, ReliabilityFirst accepted these mitigation plans.
41. ReliabilityFirst will verify that Jersey Central, Ohio Edison, Toledo Edison, FE Genco, AE Supply, and MetEd complete the necessary mitigating activities. ReliabilityFirst recognizes FirstEnergy's efforts to improve internal controls and tracking of its maintenance and testing records. In order to verify the effectiveness of these improvements, during the fourth quarter of 2013, ReliabilityFirst will request a sample of PRC-005-1 maintenance and testing records from one of the FirstEnergy Entities. ReliabilityFirst shall, at its discretion, select the FirstEnergy Entity subject to this analysis.<sup>22</sup> ReliabilityFirst

---

<sup>21</sup> MetEd will complete maintenance and testing for its CTs and PTs as well as DC control circuits by June 30, 2013. AE Supply is unable to complete maintenance and testing until December 31, 2014, because AE Supply must perform maintenance and testing in conjunction with planned scheduled generating unit outages, which AE Supply will not complete until December 31, 2014.

<sup>22</sup> ReliabilityFirst will not request maintenance and testing records from FE Genco or AE Supply. Effective January 31, 2013, FirstEnergy consolidated FE Genco and AE Supply with two other FirstEnergy Registered Entities forming FirstEnergy Generation & Marketing ("FEGM"). ReliabilityFirst is scheduled to conduct an Operations and Planning compliance audit of FEGM from June 17, 2013 to June 28, 2013.

will not request maintenance and testing records dated prior to January 1, 2012. ReliabilityFirst will analyze these maintenance and testing records to determine whether the possible violations of PRC-005-1, R2 detailed in this Agreement, which included missing documentation and late or missed maintenance and testing, evidence systemic issues with the FirstEnergy Entities' Programs and internal controls. FirstEnergy shall provide ReliabilityFirst with the requested maintenance and testing documentation within 30 calendar days of receiving ReliabilityFirst's request.

**B. PRC-005-1, R1 (RFC2011001130 and RFC2011001131)**

42. PRC-005-1 ensures that all transmission and generation Protection Systems affecting the reliability of the bulk power system are timely maintained and tested.
43. A violation of PRC-005-1, R1 has the potential to affect the reliable operation of the bulk power system because without timely maintenance and testing, Protection System devices may misoperate or fail to operate when needed.
44. PRC-005-1, R1 states:

**R1.** Each [TO] and any [DP] that owns a transmission Protection System and each [GO] that owns a generation Protection System shall have a Protection System [Program] for Protection Systems that affect the reliability of the BES. The program shall include:

**R1.1.** Maintenance and testing intervals and their basis.

**R1.2.** Summary of maintenance and testing procedures.

45. ReliabilityFirst alleges that Monongahela did not include maintenance and testing intervals and their basis or a summary of maintenance and testing procedures for its CTs and PTs in its Program pursuant to PRC-005-1, R1. ReliabilityFirst also alleges that AE Supply did not document the basis for maintenance and testing of its Protection System relays in its Program pursuant to PRC-005-1, R1.1.

*Risk Considerations and Violation Duration (RFC2011001130)*

46. On September 30, 2011, Monongahela self-certified possible non-compliance with PRC-005-1, R1. See PRC-005-1 Self Certification (attached as **Attachment F**). Monongahela stated that it did not include CTs and PTs in its Program pursuant to PRC-005-1, R1.1 and R1.2.
47. The duration of the alleged violation is from June 18, 2007, the date Monongahela had to comply with PRC-005-1, R1, until September 9, 2011, the date Monongahela included maintenance and testing intervals and their basis as well as



a summary of maintenance and testing procedures for CTs and PTs in its Program.

48. The risk posed by the foregoing facts and circumstances was mitigated by the fact that at the time of installation, Monongahela verified the output and accuracy of its CTs and PTs.<sup>23</sup>
49. In light of the nature of the alleged violation, offset by the aforementioned mitigating factors, ReliabilityFirst determined that this alleged violation posed a moderate risk to the reliability of the bulk power system.

*Risk Considerations and Violation Duration (RFC2011001131)*

50. During the AE Supply Compliance Audit, ReliabilityFirst determined AE Supply did not address all required Protection System devices and did not include an acceptable basis for Protection System relays and DC control circuitry in its Program. Specifically, AE Supply did not include CTs and PTs within its Program. Additionally, in its Program AE Supply states that the maintenance and testing interval for Protection System relays and DC control circuitry is three years, however, AE Supply did not document a basis for the three year interval.
51. The duration of the alleged violation is from June 18, 2007, the date AE Supply had to comply with PRC-005-1, R1, until September 9, 2011, the date AE Supply included CTs and PTs and the basis for its three year Protection System relay and DC control circuit maintenance and testing intervals in its Program.
52. The risk posed by the foregoing facts and circumstances was mitigated by the following factors.<sup>24</sup> First, at the time of installation AE Supply verified the output and accuracy of its CTs and PTs. Second, AE Supply's three year interval for maintenance and testing of its relays and DC control circuitry is in line with other Registered Entities' Programs. Therefore, AE Supply's failure to include a basis for its three year interval within its Program is a documentation error.
53. In light of the nature of the alleged violation, offset by the aforementioned mitigating factors, ReliabilityFirst determined that this alleged violation posed a moderate risk to the reliability of the bulk power system.

---

<sup>23</sup> PRC-005-1, R1 has a VRF of "High" consistent with the VRF Matrix promulgated by NERC. Applying the VSL Matrix promulgated by NERC, ReliabilityFirst determined that the facts and circumstances of this violation warranted a "Moderate" VSL.

<sup>24</sup> PRC-005-1, R1 has a VRF of "High" consistent with the VRF Matrix promulgated by NERC. Applying the VSL Matrix promulgated by NERC, ReliabilityFirst determined that the facts and circumstances of this violation warranted a "Moderate" VSL.

### *Mitigating Actions*

54. On January 7, 2013, Monongahela and AE Supply submitted a mitigation plan memorializing the actions each completed and committing to take additional mitigating actions to address the alleged violations of PRC-005-1, R1. Specifically, On September 9, 2011, Monongahela and AE Supply included CTs and PTs and the basis for its three year Protection System relay and DC control circuits maintenance and testing intervals in its Program. Additionally, Monongahela and AE Supply will complete maintenance and testing on all CTs and PTs by December 31, 2014.<sup>25</sup> On January 10, 2013, ReliabilityFirst accepted this mitigation plan. ReliabilityFirst will verify Monongahela's and AE Supply's completion of the mitigating activities.

### **C. PRC-011-0, R2 (RFC2012011388)**

55. PRC-011-0 provides system preservation measures in an attempt to prevent system voltage collapse or instability by implementing an Undervoltage Load Shedding ("UVLS") maintenance and testing program ("UVLS Program").
56. A violation of PRC-011-0, R2 has the potential to affect the reliable operation of the bulk power system by allowing UVLS Protection System devices to remain unmaintained and untested, which could result in UVLS Protection System devices not operating within the expected time or setting.
57. PRC-011-0, R2 states:
- R2.** The [TO] and [DP] that owns a UVLS system shall provide documentation of its [UVLS Program] and the implementation of that [UVLS Program] to its Regional Reliability Organization and NERC on request (within 30 calendar days).
58. ReliabilityFirst alleges that ATSI could not provide documentation demonstrating it fully implemented its UVLS Program pursuant to PRC-011-0, R2.

### *Risk Considerations and Violation Duration*

---

<sup>25</sup> Monongahela and AE Supply are unable to complete maintenance and testing until December 31, 2014 because Monongahela and AE Supply must perform maintenance and testing in conjunction with planned scheduled generating unit outages. Monongahela and AE Supply will not complete these scheduled generating unit outages until December 31, 2014.

59. On October 31, 2011, ATSI self-certified possible non-compliance with PRC-011-0, R2.<sup>26</sup> See PRC-011-0 Self Certification (attached as **Attachment G**). ATSI reported that it could not locate the test record for one UVLS relay scheme at its Masury substation.<sup>27</sup>
60. The duration of the alleged violation is from April 15, 2011, the date by which ATSI should have completed and recorded maintenance and testing on the relay scheme at issue, until November 15, 2011, the date ATSI performed and documented completion of maintenance and testing on the UVLS relay scheme.
61. The risk posed by the foregoing facts and circumstances was mitigated by the fact that this is a documentation error.<sup>28</sup> This is a documentation error because, although ATSI does not have the actual test record associated with the UVLS relay at issue, it has evidence that demonstrates it created a work order associated with the UVLS relay as well as worked and closed the order on April 15, 2010. Additionally, when ATSI retested the UVLS scheme on November 15, 2011, ATSI found the UVLS relay was fully functional and would have responded appropriately during the duration of the alleged violation. Further, this scheme uses microprocessor relays with built in redundancy monitored by SCADA.
62. In light of the nature of the alleged violations, offset by the aforementioned mitigating factors, ReliabilityFirst determined that these alleged violations posed a minimal risk to the reliability of the bulk power system.

#### *Mitigating Actions*

63. ATSI represents that it completed the maintenance and testing and created the associated test record for the UVLS relay at issue on November 15, 2011. ATSI shall submit evidence demonstrating it completed the described mitigating

---

<sup>26</sup> ATSI initially uploaded its self-certification related to the possible violation of PRC-011-0, R2 to ReliabilityFirst's portal webpage on October 31, 2011. However, ATSI never formally submitted the self-certification through the portal webpage to ReliabilityFirst. Therefore, ReliabilityFirst never received ATSI's self-certification. ReliabilityFirst discovered this issue in October 2012 and assigned docket number RFC2012011388 to the self-certified possible violation of PRC-011-0, R2.

<sup>27</sup> ATSI also self-certified possible non-compliance based on its inability to locate testing records for four relay schemes from 2003 to 2005. However, ATSI reported it had evidence supporting performance of maintenance and testing on these four relays as of June 18, 2007, the date of mandatory compliance. ReliabilityFirst determined ATSI's failure to locate testing records for four relay schemes from 2003 to 2005 does not evidence possible non-compliance with PRC-011-0, R2 as the standard and requirement was not subject to mandatory enforcement during that time period.

<sup>28</sup> PRC-011-0, R2 has a VRF of "Lower" consistent with the VRF Matrix promulgated by NERC. Applying the VSL Matrix promulgated by NERC, ReliabilityFirst determined that the facts and circumstances of this violation warranted a "Lower" VSL.

activities and ReliabilityFirst will verify ATSI completed all the necessary mitigating activities.

### III. ADJUSTMENT FACTORS

64. In addition to the above paragraphs, which are incorporated herein by reference, ReliabilityFirst considered the following factors.
65. ReliabilityFirst favorably considered certain aspects of the FirstEnergy Entities' compliance programs. For instance, the FirstEnergy Entities abide by FirstEnergy's Reliability and Compliance Policy, which addresses all Reliability Standards. FirstEnergy updates its policies and procedures as necessary and distributes its policies and procedures to FirstEnergy and affiliate employees. The compliance program also includes the engagement and support of senior management.
66. When assessing the penalty for the alleged violations at issue in this Agreement, ReliabilityFirst considered whether the facts of these alleged violations evidenced (a) repeated or continuing conduct similar to that underlying the prior violation of the same or a closely-related Reliability Standard Requirement; (b) conduct addressed in any previously submitted mitigation plan for a prior violation of the same or a closely-related Reliability Standard Requirement; or (c) multiple violations of the same Standard and Requirement.
67. Jersey Central, Monongahela, and AE Supply each have one or more prior alleged violations of PRC-005-1.<sup>29</sup> Therefore, ReliabilityFirst determined that several of the alleged violations described in this Agreement evidenced repeat infractions and considered the FirstEnergy entities' compliance history as an aggravating factor.<sup>30</sup>

### IV. MONETARY PENALTY/NON-MONETARY SANCTION

68. Based on the foregoing, the FirstEnergy Entities shall pay no monetary penalty to ReliabilityFirst. In lieu of a monetary penalty and pursuant to section 3.17 of the *Sanction Guidelines of the North American Electric Reliability Corporation*,

---

<sup>29</sup> See Docket Nos. RFC200900140, RFC200900194, RFC200900181, and RFC201000434, respectively.

<sup>30</sup> Although ReliabilityFirst considered the FirstEnergy Entities' compliance history an aggravating factor, ReliabilityFirst determined the FirstEnergy Entities' compliance history does not justify a monetary penalty. Specifically, ReliabilityFirst considered that Jersey Central's prior alleged violation was an isolated incident involving less than 1% of its Protection System relays. Additionally, ReliabilityFirst considered that Monongahela's and AE Supply's prior alleged violations of PRC-005-1, R2 occurred prior to FirstEnergy's February 25, 2011 acquisition of Monongahela and AE Supply.

ReliabilityFirst determined a non-monetary sanction is appropriate to address the FirstEnergy Entities' possible violations of the Reliability Standards detailed in this Agreement. Specifically, ReliabilityFirst shall conduct an analysis of a FirstEnergy Entity as detailed in paragraph 41 of this Agreement.

## V. ADDITIONAL TERMS

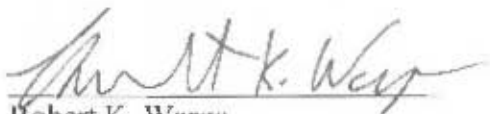
69. ReliabilityFirst and the FirstEnergy Entities agree that this Agreement is in the best interest of bulk power system reliability. The terms and conditions of the Agreement are consistent with the regulations and orders of the Commission and the NERC Rules of Procedure.
70. ReliabilityFirst shall report the terms of all settlements of compliance matters to NERC. NERC will review the Agreement for the purpose of evaluating its consistency with other settlements entered into for similar violations or under similar circumstances. Based on this review, NERC will either approve or reject this Agreement. If NERC rejects the Agreement, NERC will provide specific written reasons for such rejection and ReliabilityFirst will attempt to negotiate with the FirstEnergy Entities a revised settlement agreement that addresses NERC's concerns. If a settlement cannot be reached, the enforcement process shall continue to conclusion. If NERC approves the Agreement, NERC will (a) report the approved settlement to the Commission review and approval by order or operation of law and (b) publicly post the alleged violation and the terms provided for in this Agreement.
71. This Agreement shall become effective upon the Commission's approval of the proposed resolution of the matters as set forth in this Agreement by order or operation of law or as modified in a manner acceptable to the parties. The FirstEnergy Entities agree that this Agreement, when approved by the Commission, shall represent a final settlement of all matters set forth herein and binds the FirstEnergy Entities to perform the actions enumerated herein. The FirstEnergy Entities expressly waive their rights to any hearing or appeal concerning any matter set forth herein, unless any NERC or Commission action constitutes a material modification to this Agreement.
72. ReliabilityFirst reserves all rights to initiate enforcement actions against the FirstEnergy Entities in accordance with the NERC Rules of Procedure in the event that the FirstEnergy Entities fail to comply with any of the terms or conditions of this Agreement, including failure to timely complete mitigation plans or other remedies of this Agreement. In the event the FirstEnergy Entities fail to comply with any of the terms or conditions of this Agreement, ReliabilityFirst may initiate an action or actions against the FirstEnergy Entities to the maximum extent allowed by the NERC Rules of Procedure, including, but not limited to, the imposition of the maximum statutorily allowed monetary penalty. The FirstEnergy Entities will retain all rights to defend against such action or actions in accordance with the NERC Rules of Procedure.

73. The FirstEnergy Entities consent to ReliabilityFirst's future use of this Agreement for the purpose of assessing the factors within the NERC Sanction Guidelines and applicable Commission orders and policy statements, including, but not limited to, the factor evaluating the FirstEnergy Entities' history of violations. Such use may be in any enforcement action or compliance proceeding undertaken by NERC or any Regional Entity or both, provided however that the FirstEnergy Entities do not consent to the use of the conclusions, determinations, and findings set forth in this Agreement as the sole basis for any other action or proceeding brought by NERC or any Regional Entity or both, nor do the FirstEnergy Entities consent to the use of this Agreement by any other party in any other action or proceeding.
74. The FirstEnergy Entities affirm that all of the matters set forth in this Agreement are true and correct to the best of its knowledge, information, and belief, and that they understand that ReliabilityFirst enters into this Agreement in express reliance on the representations contained herein, as well as any other representations or information provided by the FirstEnergy Entities to ReliabilityFirst during any of the FirstEnergy Entities' interactions with ReliabilityFirst relating to the subject matter of this Agreement.
75. Each of the undersigned agreeing to and accepting this Agreement warrants that he or she is an authorized representative of the entity designated below, is authorized to bind such entity, and accepts the Agreement on the entity's behalf.
76. The undersigned agreeing to and accepting this Agreement warrant that they enter into this Agreement voluntarily and that, other than the recitations set forth herein, no tender, offer, or promise of any kind by any member, employee, officer, director, agent, or representative of ReliabilityFirst or the FirstEnergy Entities has been made to induce the signatories or any other party to enter into this Agreement.
77. The Agreement may be signed in counterparts.
78. This Agreement is executed in duplicate, each of which so executed shall be deemed to be an original.

**[SIGNATURE PAGE TO FOLLOW]**

**[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]**

**Endorsed By:**

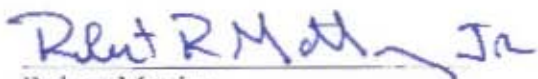


Robert K. Wargo  
Director of Analytics & Enforcement  
ReliabilityFirst Corporation

2/19/2013  
Date

**Agreed To And Accepted By:**

**FirstEnergy Services Company**



Robert Mattiuz  
Director, FERC Compliance  
FirstEnergy Service Company on behalf of  
The FirstEnergy Entities

2/22/2013  
Date

**ReliabilityFirst Corporation:**



Timothy R. Gallagher  
President & Chief Executive Officer  
ReliabilityFirst Corporation

2/20/13  
Date