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Department of Public Works
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Hon. Jaelyn Brillling
Secretary
New York State Public Service Commission
Three Empire State Plaza
Albany, New York 12223-1350

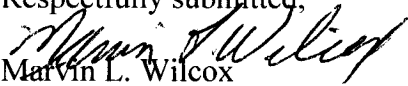
Re: Case 04-M-0159 - Proceeding on Motion of the Commission to Examine the
Safety of Electric and Transmission and Distribution
Systems

Dear Secretary Brillling:

Pursuant to the Public Service Commission's Order Directing Utility Filings issued January 5, 2005, in the above-referenced proceedings, the Village of Castile submits this comprehensive compliance report. The report describes the Village of Castile stray voltage detection and equipment inspection program conducted in 2009.

If you have any question concerning this report, please contact the undersigned.

Respectfully submitted,


Marvin L. Wilcox
Superintendent of Public Works

Cc: NYMPA

2009 Stray Voltage Detection and Equipment Inspection Report Village of Castile

On January 5, 2005, the Public Service Commission (PCS) issued an order instituting Electrical Safety Standards. The Standards require utilities to conduct an annual system wide - stray voltage detection program and an equipment inspection program to mitigate stray voltage risks to the public and increase service reliability.

This report describes the Municipal Village of Castile's stray voltage detection program and equipment inspection program conducted in 2009 and addresses the following by section number:

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OVERVIEW OF VILLAGE OF CASTILE ELECTRIC SYSTEM

The Village of Castile is a distribution-only utility, operating one 5KV substation and 35 circuit miles of 4.16 KV distribution in Wyoming County. The service territory is primarily rural in nature with approximately 623 customers. The Village of Castile, with a population of 1135,

One Hundred (100) percent of the Village of Castile's distribution system is overhead including poles and 182 transformers.

Section 1
2009 STRAY VOLTAGE TESTING PROGRAM

The Village of Castile is divided to the task of testing into three (3) sections:
Streetlights, Overhead facilities, and Substation

I. Streetlights

II. A. All are high pressure sodium lights mounted on wooden poles.

A. Overall program

1. Start & Completion dates – Actual program activity began in June of 2009 with the assembly of the lists of facilities requiring testing. Field-testing began in early June and continued thru mid July.
2. Personnel participating in the testing program this year (2009) by the job titles were; the Superintendent, Lineman, and (2) Ground Persons.
3. Data Recording and Record Keeping – A database was created

Using Microsoft Works. Each tested structure or location is an individual record of the database. The “Form View” sheets are used as the field sheet for recording results and for ease of data input.

C. Test Procedure

1. The village of Castile utilized the Greenlee-model 2010A.
2. Personnel participating in the program this year (2009) by job Titles were the supt., lineman and two ground persons.
3. The test procedure performed was a surface level scan using a device identified above.
4. The quality assurance measures employed included a monthly field check by the Electric Superintendent of a randomly selected location and the periodic verification checking of the induction device at the test location with a multimeter and ground reference.

A. Results

1. A total of 131 structures were tested during 200 with “NO” positives hits. Additionally, throughout this reporting year the

Village of Castile is not aware of any corrective or maintenance activities performed at any of the locations outside of the normal replacement of changing over from mercury vapor lights to high pressure sodium lights.

2. The tested structures are all standard models of security/site lighting. Units are all 120/240 volt design.
3. 127 of the structures are located in the Village of Castile. Nineteen (29) are located in the Town of Castile, Gainesville and Genesee Falls.

II. Overhead Facilities

A. Scope

A total of 131 structures were tested. The majority of items, over 70%, are located in the Village of Castile. The remaining structures are located in the Town of Castile, Gainesville and Genesee Falls. The structures are a combination of anchors and ground wires. These items were considered publicly accessible because they were located adjacent to sidewalks, parking lots and other areas subject to pedestrian traffic.

B. Overall Program

1. Start and completion dates – actual program activity began in May and June of 2009 with the assembly of the list of facilities requiring testing. Field testing began later in the month and continued through July.
2. Personal participating in the testing program this year (2009) by job titles were: the superintendent, one lineman and two groundmen.
3. Data recording and record keeping – A database was created using Microsoft Works. Each tested item became a record in the database

C. Test Procedure

- A. Village of Castile utilized the Greenlee-model 2010A.
- B. Personal participating in the in the testing program this year (2009) by job titles were: superintendent, one lineman and two groundmen.
- C. The test procedure performed was a surface scan using the device identified in number 1 above.

A. Results

1. A total of 131 structures were tested during 2009 with “NO” positive hits.
2. 92 of the structures are located in the Village of Castile while the remaining 39 are located in the Town of Castile, Gainesville and Genesee Falls.
3. No voltage potential was recorded at any of the locations

IV. Substation

A Scope

Four (4) locations were tested. In all cases the process included the testing of the security fence surrounding the station. The riser poles that hold the feeder lines coming into the station were also included in the test. This facility is owned and maintained by the Village of Castile. The security fencing is kept locked at all times.

B. Overall Program

1. Start and Completion Dates – Actual program began in May and June of 2009 and was completed in July.

Personal participating in the testing program by job titles were: superintendent, one lineman and two groundmen.

2. Data Recording and Record Keeping – A database was created using Microsoft Works. Each tested structure became a record of the database.

C. Test Procedure

1. The Village of Castile utilized the Greenlee-model 2010A.
2. Personal participating in the testing program by job titles were: superintendent and lineman.
3. The test procedure performed was a surface level scan using the device mentioned in number 1 above.

D. Results

1. During 2009 there were “NO” positive hits.
2. The security fencing provides a dual purpose of protecting the public and controlling and limiting general access.

Section 2
Additional Stray Voltage Detection

Routine Work Stray Voltage Testing

No testing for stray voltage was performed during the course of normally scheduled routine work this period.

Reports from the Public

During 2008 reporting period the Village of Castile did not respond to any direct reports of stray voltage from the general public or from any customer.

Section 3
2009 Electrical Facility Inspection Program

Introduction

The Village of Castile operates a single 34.5kV substation with 35 circuit miles of 4.16kV distribution in Wyoming County. Having two (2) feeder with an estimated 730 poles and 182 transformers to provide service to 623 customers.

During the 2009 inspection period, we followed the program described in our February 2005 Implementation Report. The program required the inspection of all facilities located within the Village of Castile. The following is a detailed breakdown of those inspection.

Village of Castile Inspections

1. Scope

To quantify the inspection process a four (4) unit concept was developed, a description

Follows.

- A. Pole Unit – a streetlight and fixture or utility pole, equipment (excluding transformers), hardware and the forward wire span (including both primary and secondary).
- B. Transformer Unit - pole mounted, includes wire leads, fused cut outs and lightning arresters.
- C. Substation Unit – all structures and equipment located inside the security fencing of the site.
- D. “Other” – miscellaneous items and equipment, which are few in number.

II. Inspection Process

A. Method

1. Pole Unit – a visual top-to-bottom inspection of the pole is performed. The general physical condition of all components and the state of their attachment. The extent of weathering, splitting and decay. Conductors are scanned for signs of burning, symmetry and uniformity of sag. Other supports and brackets for indication of burning, cracking and deformation.
2. Transformer Unit – a visual assessment of the assemblies. Observing the condition of bushing and connectors. Scanning for signs of heating, burning, cracking and general weathering.
3. Substation Unit – a visual survey of the general condition of all the equipment, structures and building site. Scanning for evidence of lightning and electrical overload damage. External indications of heating, burning and cracking. These inspections are not intended to replace the more detailed periodic PM work performed at the station or any routine operational inspections.
 2. “Other” - miscellaneous items and equipment which are few.

B. Personnel participating in the inspection program this year by job titles were: Superintendent, one lineman and two groundmen.

C. Data Recording and Recordkeeping

A database was created using Microsoft Works. Each inspected structure or structure became a database.

D. Quality Assurance

The quality assurance measures employed included a verification check at locations by the Electric Superintendent and a review of the worksheets.

III. Results

A. 131 poles Units were inspected during 2009. This represents 18% of the total poles and includes units from the testing program.

1. One (1) units identified as having minor rotting requiring continued monitoring.
2. Five need some type of trimming either around the pole or guy wire.
3. Three (3) need some type of guy wire repair.
4. Three (3) repairs need to be done on cross arms.

B. Thirty (30) transformer units were inspected. This represents 20% of the total number of tranformer units.

1. No defects observed.

- C. Two substation Units were inspected during 2009, this is 100% of the units
2. No defects were observed.

- D. "Others" Units inspected during 2009 were the capacitor banks located through the system.
3. No defects were observed.

Section 4

Public Service Commission Performance Mechanism

The PSC Safety Order requires 100% of publicly accessible facilities and streetlights be tested for stray voltage. The Village of Castile broke this task down into three (3) sections: Streetlights, Overhead Facilities and Substation. Testing during 2009 was performed on 153 streetlight unit that are mounted on wooden poles, 131 pole units and the Substation. This testing activity is consistent with and achieves the goal set forth in the February 2005 Implementation Report for compliance.

The PSC Safety Order also requires 20% of all electrical facilities to be inspected in 2009. The Village of Castile, in its February Report, proposed to inspect all facilities located within the Village of Castile achieving more then the requirement. A four unit inspection scheme was developed consisting of: Pole Units, Transformer Units, Substation Units and Others. The four category approach was developed because it best matched our property records.

Section 5

Analysis of Results

Stray Voltage Detection

During the 2009 program period the Village of Castile found no stray voltage at any of the test points. Our conclusion is the "No Hits" results is, in all probability, a fortunate consequence of the limited number tests performed and not because of superior design or workmanship.

Equipment Inspection

The Village of Castile is not surprised by the limited number of problems observed inside the Village during the initial round of inspection. Electric meter readings are performed on foot monthly in the Village. As line personnel are the readers, an informal field survey is completed every month.

Section 6 **Stray Voltage Initiatives**

The need to test streetlights while operating required the Village of Castile to manually cover the photo eyes so they would operate. This required additional time for they are mounted on wooden poles with only ground wire coming down the poles.

Section 7 **Future Improvements**

During the first year of testing the Village of Castile was primarily focused on assembling an organized listing of locations and items to be tested and then performing those tests. There are only four (4) employees in the Department of Public Works which take care of the streets, water, electric and sewer.

Section 8 **Certification of Stray Voltage and Inspection Program**

The due diligence and test-completion certification of the Village of Castile's official responsible for overseeing stray voltage testing follows in Appendix A.

The due diligence and inspection-completion certification of the Village of Castile official responsible for overseeing facility inspection follows in Appendix B.

As identified in the "Test Equipment and Tools" section of the Village of Castile's Report of February 2005. The Greenlee-model 2010A were used for the testing under this program. This unit had prior certification of operating in the 8 to 600 volt range.

**Stray Voltage Detection
And
Equipment Inspection
Report 2009**

**Village of Castile
Municipal Electric**