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June 15, 2017

BY ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, Filing Room
Harrisburg, PA 17120

In re: Electric Service Reliability Regulations; Docket No. L-00030161; **PIKE COUNTY LIGHT & POWER COMPANY'S 2016 ANNUAL ELECTRIC RELIABILITY REPORT**

Dear Secretary Chiavetta:

Enclosed you will find Pike County Light & Power Company's 2016 Annual Electric Reliability Report in the above-captioned docket. Copies have been served in accordance with the attached Certificate of Service.

Any inquiries regarding this report should be directed to Mr. Steven Grandinali, General Manager, Pike County Light & Power Company, (570) 832-2988 ext. 354, or by email at grandinali@PCLPEG.com.

Very truly yours,

Thomas J. Sniscak
Christopher M. Arfaa

TJS/das
Enclosure
cc: Per Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a true and correct copy of the foregoing document upon the parties, listed below, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a party).

BY FIRST CLASS MAIL

Office of Consumer Advocate
555 Walnut Street
5th Floor Forum Place
Harrisburg, PA 17101

Office of Small Business Advocate
Commerce Building, Suite 1102
300 North 2nd Street
Harrisburg, PA 17101

Reliability and Emergency Preparedness
PUC Bureau of Technical Utility Services
Pennsylvania Public Utility Commission
PO Box 3265
Harrisburg, PA 17105-3265



Thomas J. Sniscak
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DATED: June 15, 2017



Pike County Light & Power Company
Annual Electric Reliability Report
2016 System Performance

June 2017

INTRODUCTION

Pursuant to the requirements of 52 Pa. Code §57.195, Pike County Light & Power Company ("Pike", "PCL&P" or the "Company") submits this Annual Reliability Report ("Report") to the Pennsylvania Public Utility Commission ("PAPUC") for its 2016 system performance. Pike is an electric distribution company ("EDC") which has approximately 4,500 electric distribution customers, thereby making it a "smaller EDC" for purposes of 52 Pa. Code §57.195 (c).

A. §57.195. (b)(1)

An overall assessment of the state of the system reliability in the EDC's service territory including a discussion of the EDC's current programs and procedures for providing reliable electric service.

Overall Current Assessment

The PCL&P service territory is primarily fed from two 34.5 kV feeders, and a substation with two 13.2 kV feeders.

The Company has been effective in removing danger trees. The Company routinely removes those danger trees within rights-of-way areas when identified. Those danger trees that exist outside of the Company's right-of-way areas can only be removed with customer or municipal authorization. PCL&P has begun tracking danger trees that it is unable to mitigate. PCL&P regularly works with the County Commissioners' office, the Boroughs of Matamoras and Milford, the Townships of Westfall and Milford, and the Milford Shade Tree Commission, to address danger trees that represent a hazard to the Company's electrical system but are located outside of right-of-way areas.

The result of this work was an improvement in SAIFI performance for the year. The SAIFI performance of 0.38 was the best performance in over ten years and beat the previous year by 5%. The SAIDI performance results were a fairly steady increasing of only 6.6 minutes. The CAIDI performance grew slightly but still resulted in the year end performance coming in at 3% lower than the target.

The PAPUC's service reliability standards for Pike, last revised on August 17, 2006, are as follows:

- 12-Month System Average Interruption Frequency Index ("SAIFI", or "Frequency") of 0.82 interruptions per customer served;
- 12-month Customer Average Interruption Duration Index ("CAIDI" or "Restoration") of 235 minutes of interruption per customer interrupted;
- 12-month System Average Interruption Duration Index ("SAIDI" or "Duration") of 195 minutes per customer served.

In 2016, the Pike service territory experienced a Frequency of 0.38 interruptions per customer served, a Restoration of 228 minutes, and Duration of 86.5 customer-minutes of interruption. SAIFI was 54% below the standard, CAIDI was 7 minutes (3%) below the standard, and SAIDI was 108 minutes (44%) below the standard. These results are detailed on Page 8 of this Report, along with the most recent three-year history for these indices.

The three-year reliability standards for Pike are as follows:

- Three-year annualized SAIFI of 0.67 interruptions per customer served;

- Three-year annualized CAIDI of 191.4 minutes of interruption per customer interrupted; and
- Three-year annualized SAIDI of 129 minutes per customer served.

For the three-year period ended December 2016, Pike experienced an annualized Frequency of 0.95 interruptions per customer served, a Restoration of 134.8 minutes, and Duration of 129.1 customer minutes of interruption.

There were four major events that affected Pike's service territory during 2016 that were accepted by the PAPUC for exclusion from the statistics. These major events affected 6,007 customers for a total of 35,793.6 customer-hours (2,147,615 customer minutes) of interruption and are detailed in the next section of this Report (starting on Page 5).

The table on Page 7 summarizes, by cause, Pike customer interruptions experienced in 2016, with pre-arranged and major events removed. The leading cause of outages was tree contacts, with 23 interruptions affecting 479 customers for a total of 174,499 customer-minutes.

The service reliability program targeted to manage these outages is the 34.5kv circuit three-year, cycle-based tree clearance program. The most recent cycle was completed in 2015, and is scheduled next for completion in 2018. The most recent 13.2kv circuit cycle was completed in 2012, and is scheduled next for completion in 2017. This effort, along with the other service reliability programs that the Company implements, as are discussed later in this Report, are designed to target circuit equipment and conditions that will result in performance improvements.

The distribution inspection and maintenance goals/objectives and capital expenses, are listed starting on Page 10 of this Report. Pike has no transmission lines.

A. §57.195. (b)(2)

A description of each major event that occurred during the year being reported on, including the time and duration of the event, the number of customers affected, the cause of the event and any modified procedures adopted to avoid or minimize the impact of similar events in the future.

Major Events

Date	Cause	Time	Duration (minutes)	Customers Affected	Cust. Min of Interruption
02/16/16	Equipment Failure	09:27:00 PM	6	1,795	10,770
02/24/16	Tree Contact	08:58:00 PM	1,404	1,067	185,055
08/13/16	Tree Contact	02:37:00 PM	194	627	474,908
09/19/16	Motor Vehicle Accident	06:37:00 AM	187	2,518	1,476,882
TOTALS				6,007	2,147,615

a. February 16, 2016

At approximately 9:37 pm on March 16, 2016, Orange County Fire Control reported wires down near 57 Canal Street in Port Jervis, NY. Upon arrival, the responding repair crew observed a burnt set of mylar balloons at the base of the pole where the phases had come down. Customers who are near to the fault location confirmed that the balloons had become entangled in the mainline primary conductors of a 34.5kv feeder, causing arcing between the Phase 2 and Phase 3 conductors before both burned down. Consistent with the design of the protection scheme a station breaker opened the fault location. Simultaneously, an adjacent sectionalizing recloser on opened on the opposite side of the fault location. These two operations resulted in the loss of the primary feeder source to the Substation, effectively deenergizing the station. The reported weather conditions at that time were of elevated wind levels coupled with rain and lightning.

b. February 24, 2016

On the evening of February 24, 2016, a slow moving warm front crossed the PCL&P service territory resulting in elevated wind speeds including gusts more than 30 mph. Numerous tree limbs throughout the area were brought down by the elevated winds. At all three locations, falling limbs contacted the PCL&P electric distribution system. For the Route 6 and the first Avenue C outages, consistent with the design of the system's protection schemes, upon sensing fault current, protection devices operated to isolate the fault locations of the system. For the second Avenue C outage, a protection device was opened manually to provide safety clearance for repair crews to make repairs to the distribution system.

c. August 13, 2016

At approximately 2:37 pm on Saturday, August 13, 2016, PCL&P began receiving "no power" calls from customers in the Matamoras area. At about the same time, O&R's control center received notification that 34.5kv circuit that feeds the substation had opened and locked. The reported weather conditions in the Matamoras area at the time were elevated winds coupled with rain and lightning. Because of these weather conditions, crews were already on the road and began immediate patrols of the lines serving the area. These patrols identified two separate fault locations. The first fault location occurred on one of the 34.5kv circuit emanating just outside of source substation. Customers served by the Matamoras Substation may have experienced a momentary service interruption as the fault was isolated through automated switching of distribution protection devices located along the circuit. The second fault occurred on Avenue C in the Borough of Matamoras, and was the result of a 65-foot white ash tree located over 45 feet off the road experiencing a failed main stem and collapsing onto the primary conductors of adjacent 34.5kv circuit, which in turn came down on the conductors of 13.kv distribution circuit (located on the same pole line). Both circuit 34.5kv and 13.2kv circuits opened and locked out. Service to all customers served by the Substation was interrupted due to the loss of its primary source. Customers on circuit 13.2kv were restored after a brief interruption as the substation was automatically transferred to its alternate 34.5kv feeder. Customers on circuit 13.2kv remained without service until repairs were completed on Avenue C at 5:51 pm.

d. September 19, 2016

At 6:37 am on Monday September 19, 2016 the O&R Control Room received a notification from its SCADA system that a breaker of one of 34.5kv had opened and locked out. The breaker feeds PCL&P's 34.5kv that runs along Route 209 from Matamoras to Milford. "No power" calls from customers in the Milford area began coming in at 6:39 am. At 6:49 am, O&R's Control Center received a report from "Pike County 911 office" of a motor vehicle accident involving a utility pole near the Delaware Valley High School located on Route 209 between Milford and Matamoras. The reported weather conditions in the area at the time were of rain. A supervisor and troubleshooter crew were dispatched within 10 minutes of the notification of breaker 34.5kv being open (this event occurred on off hours). Upon arrival, the supervisor observed pole 38803/49221 to be broken with a damaged transformer leaking oil

B. §57.195. (b)(3)

A table showing the actual values of each of the reliability indices (SAIFI, CAIDI, SAIDI, and if available, MAIFI) for the EDC's service territory for each of the preceding 3 calendar years. The report shall include the data used in calculating the indices, namely the average number of customers served, the number of sustained interruptions, the number of customers affected, and the minutes of interruption. If MAIFI values are provided, the number of customer momentary interruptions shall also be reported.

Year	SAIFI	CAIDI	SAIDI	Average No. of Customers Served	No. of Interruptions	Customers Affected	Customer Minutes of Interruption
2013	1.21	209	253	4,495	54	5,449	1,137,057
2014	2.12	106	225	4,506	62	9,542	1,008,212
2015	0.4	199.7	79.9	4,531	63	1,821	366,523
2016	0.38	228	86.5	4,559	51	1,735	394,826

MAIFI data is not currently available.

C. §57.195. (b)(4)

A breakdown and analysis of outage causes during the year being reported on, including the number and percentage of service outages, the number of customers interrupted, and customer interruption minutes categorized by outage cause such as equipment failure, animal contact, tree related, and so forth. Proposed solutions to identify service problems shall be reported.

Causes of Interruption				
Cause Description	No. of Inter.	% of Inter.	Customers Affected	Customer Minutes
Animal – Bird	1	1.96%	68	15,164
Animal – Other	1	1.96%	57	2,337
Animal – Squirrel	6	11.76%	389	31,311
Equipment Failure	13	25.49%	415	122,333
No Cause Found	5	9.80%	309	47,466
Non Co Acc. – Motor Vehicle	2	3.92%	18	1,716
Tree Contact	23	45.10%	479	174,499
Totals	51		1,735	394,826

As noted in the above table, the primary cause of interruptions in 2016 was “Tree Contact”, followed by “Equipment Failure”.

The 2016 Pike distribution vegetation management program included the 34.5kv circuit overhead primary system as part of the extension emanating from the source into Pike service area to the Matamoras Substation and then to Route 84. It was completed in the first half of the year. As previously discussed, during 2016 PCL&P also assisted municipalities in the removal of numerous hazard trees as they were identified. Tree issues are also reported and addressed through the Circuit Ownership Program’s circuit patrols. While the number of tree related outages has remained flat in recent years, the number of customers affected by trees dropped by over 20% and the number of customer minutes by over 5,000 in 2016.

D. §57.195(b)(5)

A list of the major remedial efforts taken to date and planned for circuits that have been on the worst performing 5% of circuits list for a year or more.

Pursuant to Pike's exemption as set forth in §57.195(c), Pike is not required to address this subsection.

E. §57.195. (b)(6)

A comparison of established transmission and distribution inspection and maintenance goals/objectives versus actual results achieved during the year being reported on. Explanations of any variances shall be included.

T/D Inspection/Maintenance Goals/Objectives

Goals/Objectives vs. Results

For distribution goals and objectives, the Company focused on completing all scheduled preventive maintenance on its distribution facilities. As set forth below, Pike met these goals. Pike has no transmission facilities.

- Distribution Vegetation Management

- In 2015, the entire length of Line 7 (58.75 miles) was trimmed per the Company's line clearance specifications. This trimming will not be completed again until the cycle comes due. In 2016, the 5-10-34 portion in Matamoras/Westfall was trimmed under the continuation from of the tree trimming started in Cuddebackville, NY. The Company also responded to several requests from customers and municipalities for tree trimming and hazard tree removal.

- Pole Inspection Program

- Distribution poles are inspected on a twelve-year cycle. PCL&P planned to inspect 350 of its approximately 4,200 poles in 2016, the eight year of the cycle. Pike did not perform pole inspections in 2016. The Company has inspected 3,131 (72%) poles at the end of 2016.

- Distribution Overhead Line Inspections

- The 2016 maintenance program included infrared inspection of all three-phase circuitry. ORU/PCL&P did not perform the infrared survey as planned..

- Power Quality

- The 2016 maintenance program required inspection of eleven capacitors and five regulators, which Pike completed as planned.

- Recloser Program

- The 2016 maintenance program required visual inspection of all reclosers annually, and a functional test every three years. Pike completed four visual inspections in 2016.

- Substation Maintenance and Inspection Program

- The 2016 maintenance program required completion of all inspection and maintenance requirements as listed in Appendix I for the Matamoras Substation, which Pike completed as planned.

- Transformer Inspection Program

- PCL&P is required to inspect all of its padmount on a five-year cycle. Pike inspected all of its 268 pad-mounted distribution transformers in 2013. This completes the pad-mounted transformer inspection portion of the PA Inspection & Maintenance Plan until 2018.

- PCL&P is required to inspect all of its overhead distribution transformers on a two-year cycle as part of the overhead distribution line inspection program. All overhead distribution transformers were inspected in 2014. The next inspection cycle is due to be completed by the end of 2017.

§57.195. (b)(7)

A comparison of budgeted versus actual transmission and distribution operation and maintenance expenses for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

T/D Operation and Maintenance

2016 O&M Expenditures	2016 Budget (\$,000)	2016 Actual (\$,000)
5600 OPERATION SUPERVISION AND ENGINEERING	16.0	0.0
5630 OVERHEAD LINE EXPENSES	6.5	43.5
5670 RENTS	0.0	0.0
5700 MAINTENANCE OF STATION EQUIPMENT TRANSMISSION	19.6	0.0
5710 MAINTENANCE OF OVERHEAD LINES TRANSMISSION	40	0.0
5800 OPERATION SUPERVISION AND ENGINEERING	0.0	0.0
5810 LOAD DISPATCHING	0.0	0.0
5820 STATION EXPENSES	48.7	5.5
5830 OVERHEAD LINE EXPENSES	27.0	9.0
5840 UNDERGROUND LINE EXPENSES	5.5	13.9
5860 METER EXPENSES	38.2	38.0
5870 CUSTOMER INSTALLATIONS EXPENSES	0.0	1.2
5880 MISCELLANEOUS DISTRIBUTION EXPENSES	22.5	5.6
5890 RENTS	0.7	0.0
5920 MAINTENANCE OF STATION EQUIPMENT DISTRIBUTION	22.4	16.1
5930 MAINTENANCE OF OVERHEAD LINES DISTRIBUTION	274.4	-15
5940 MAINTENANCE OF UNDERGROUND LINES DISTRIBUTION	55.7	11.1
5960 MAINTENANCE OF STREET LIGHTING AND SIGNAL SYSTEMS	25.5	6.2
5980 MAINTENANCE OF MISCELLANEOUS DISTRIBUTION PLANT	0.0	0.0
Total Distribution	1,330.1	1,199.6

The 2016 Actual Operation and Maintenance Expenses under ran the budgeted amount by \$130.5K (9.8%).

A. §57.195. (b)(8)

A comparison of budgeted versus actual transmission and distribution capital expenditures for the year being reported on in total and detailed by the EDC's own functional account code or FERC account code as available. Explanations of any variances 10% or greater shall be included.

T/D Capital Expenditures

Account#	Capital Project	2016 Budget(\$,000)	2016 Actual (\$,000)
1070	2016 Pole Inspection Blanket (PARC)	156.2	9.4
1070	Electric Meter Purchases – PA	32.0	11.7
1070	Electric Meter 1 st Install Blanket - PA	55.7	13.9
1070	2016 Electric Distribution / Transformer Blankets - PA	61	130.3
1070	Delaware VSD New Elementary School OH Voltage Upgrade	0	49.9
1070	New Business	47.3	127.1
1070	System Reliability	97.1	163.9
Total Capital		449.3	506.2

The 2016 overall Capital Expenditures were \$56.9k (12.6%) above the budget. The majority of the overrun can be attributed to an unanticipated need for a voltage upgrade and more new business than expected.

A. §57.195. (b)(9)

Quantified transmission and distribution inspection and maintenance goals/objectives for the current calendar year detailed by system area (that is by transmission, substation and distribution.)

T/D Inspection and Maintenance Goals/Objectives Quantified

Inspection and maintenance programs, designed with the intention of improving frequency of interruption and minimizing the resultant increases in restoration (as frequency is improved), have been in effect in Pike's service territory for over ten years. In addition, the "Biennial Inspection, Maintenance, Repair and Replacement Plan" became effective on January 1, 2012. This plan along with the associated programs are focused on field facilities and customer satisfaction, and are effective in minimizing the probability of an interruption while limiting the number of customers affected per interruption. The major programs are:

- **Distribution Vegetation Management**

The not to exceed five-year cycle trimming and various spot trimming and hazard tree removal are performed as conditions are identified.

- **Pole Inspections Planned**

350 Poles are scheduled to be inspected in 2017.

- **Power Quality**

The 2017 maintenance program will require inspection of eleven capacitors and five regulators.

- **Recloser Program**

The 2017 maintenance program will require visual inspection of one recloser and a functional of 3 reclosers.

- **Substation Maintenance and Inspection Program**

The 2017 maintenance program will require the completion of all monthly and annual inspection and maintenance requirements, as listed in Appendix I for the Matamoras Substation.

- **Distribution Overhead Line Inspections**

All five circuits for Pike were inspected in 2015. The next inspection cycle is scheduled for 2017 into 2018.

- **Distribution Transformer Inspections**

In 2014, all overhead transformers were inspected. The next inspection of overhead transformers is scheduled to be completed in 2018 into 9. The overhead line inspection program and the inspection of pad mount transformers will be completed at least once every five years.

B. §57.195. (b)(10)

Budgeted transmission and distribution operation and maintenance expenses for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

T/D Operation and Maintenance

O&M	Capital Project	2017 Budget(\$,000)
5600	OPERATION SUPERVISION AND ENGINEERING	18.2
5620	STATION EXPENSES	43.6
5630	OVERHEAD LINE EXPENSES	43.2
5660	MISCELLANEOUS TRANSMISSION EXPENSES	30.0
5700	MAINTENANCE OF STATION EQUIPMENT TRANSMISSION	19.6
5710	MAINTENANCE OF OVERHEAD LINES TRANSMISSION	40.0
5800	OPERATION SUPERVISION AND ENGINEERING	83.2
5820	STATION EXPENSES	6.9
5830	OVERHEAD LINE EXPENSES	9.0
5840	UNDERGROUND LINE EXPENSES	13.8
5860	Non Specific Project	5.6
5880	MISCELLANEOUS DISTRIBUTION EXPENSES	204.9
5890	RENTS	1.1
5920	MAINTENANCE OF STATION EQUIPMENT DISTRIBUTION	3.2
5930	MAINTENANCE OF OVERHEAD LINES DISTIBUTION	150
5940	MAINTENANCE OF UNDERGROUND LINES DISTRIBUTION	11.13
5960	MAINTENANCE OF STREET LIGHTING AND SIGNAL SYSTEMS	6.2
Total Distribution		689.6

§57.195. (b)(11)

Budgeted transmission and distribution capital expenditures for the current year in total and detailed by the EDC's own functional account code or FERC account code as available.

T/D Capital Expenditures

Account#	Capital Project	2017 Budget(\$,000)
330	Electric Meter Purchases - PA	37.9
330	Electric Meter 1st Install Bkt-PA	56.3
330	Pole Inspection Blanket(PARC)	156.2
330	Electric Dist Blanket and Transformers	217.7
Total Capital		468.1

C. §57.195. (b)(12)

Significant changes, if any, to the transmission and distribution inspection and maintenance programs previously submitted to the PAPUC.

T/D Inspection and Maintenance Programs - Significant Changes

Inspection & Maintenance Changes

There were no significant changes to Pike's Inspection and Maintenance programs in 2016. Inspection programs in 2017 will be performed in accordance with the Company's "Biennial Inspection, Maintenance, Repair and Replacement Plan" filed with the PAPUC.

Item Description:

Examine individual utility substation maintenance programs to validate proper maintenance procedures and verify that maintenance is being performed. Review recent operating data to verify that no adverse trends exist.

PCL&P Program:

The following details the different class inspections and maintenance programs performed by the Substation Operations Department, and their associated time cycles. Intervals vary dependent on equipment type, style and maintenance history.

CLASS #1 INSPECTION - Monthly

- Visual inspection of transformers and oil breakers for oil leaks, oil levels, nitrogen pressure, connections, condition of bushings and Oil Circuit Breaker (OCB) operating mechanism.
- Visual inspection of battery banks, chargers, control board indicating lights, control house lights, yard lights.
- Visual inspection of minor equipment including Potential Transformers (PTs), Current Transformers (CTs), Capacitive Coupled Potential Devices (CCPDs), disconnect switches and bus connections.
- Visual inspection of all structures, fences and yard surfaces.
- Counter readings taken of OCBs, Gas Circuit Breakers (GCBs), reclosers and tap changers.

STATION BATTERY TESTS - Annually

- Measure specific gravity and cell voltage. Test battery impedance, clean batteries and check cell levels.

FANS, PUMPS, HEATERS AND COMPRESSORS - Annually

- Check for proper operation prior to winter for heaters and compressors and prior to summer for fans and pumps.

TRANSFORMER GAS-IN-OIL ANALYSIS – Quarterly/Annually

- Take oil sample from each power transformer compartment and analyze for combustible gas content.

DOBLE POWER FACTOR TEST - Every Three - Ten Years

- Use Doble instrument to measure the integrity of the insulating medium of applicable device.

OCB TIMING - Every Three - Ten Years

- Check the time it takes for each operation of breakers.

RELAY MAINTENANCE - Every four years, electromechanical; six years microprocessor

- Clean, test and calibrate as required all relays involved in protective relay schemes. After testing and calibrating, perform a trip test to assure proper operation.

CLASS #3 INSPECTION - Every Three - Ten Years

The Class #3 inspection on transformers is to include, but is not limited to the following items:

- Test oil
- TTR - Test, Megger test;
- Inspect all connectors, bushings;
- Inspect for leaks (oil - nitrogen);
- Check CT connections, alarm systems on banks; and
- Doble Power Factor Test.

Transformers with Load Tap Changers

- Test Oil in LTC cabinet; and
- Test LTC control for proper operation.

The Class #3 inspection on OCB's is to include, but is not limited to the following items:

- Test Oil
- DLRO (Ductor Test) before and after
- Inspect and clean control cabinet;
- Inspect and clean Pneumatic-Hydraulic or spring charged operating system; and
- Operational Test.

The Class #3 inspection on reclosers is to include, but is not limited to the following items:

- Test Oil
- DLRO (Ductor Test) before and after;
- Control cabinet clean, checkout and operational test; and

Reclosers with Vacuum Bottles

- Hi-Pot test.

The Class #3 inspection on ACB's is to include, but is not limited to the following items:

- DLRO (Ductor Test) before and after;
- Inspect all contacts (action to be taken, if needed);
- Inspect and test all Micro and Aux. contacts (close and trip circuit); and
- Operational Testing

CLASS #4 INSPECTION - Various intervals (four - twelve years or as necessitated by Class#3 Inspection results) dependent on equipment type, style and maintenance history.

The Class #4 inspection consists of a thorough inspection and testing of the apparatus listed below and includes all inspections included in a Class #3.

Transformers with Load Tap Changer

- Drain oil from LTC cabinet, inspect all contacts;
- Inspect and tighten all connections;
- Clean complete LTC cabinet;
- Filter or replace oil; and
- Test LTC control for proper operation.

The Class #4 inspection on OCB's is to include, but is not limited to the following items:

- DLRO (Ductor test) before and after;
- Drop tanks - inspect and tighten all connections. Clean all parts and tanks;
- Test and filter or replace oil;
- Inspect and clean control cabinet;
- Inspect and clean Pneumatic-Hydraulic or spring charged operating systems; and
- Operational Test.

The Class #4 inspection on reclosers is to include, but is not limited to the following items:

- Drop tank (filter or replace oil);
- Inspect all contacts - repair or replace (depending on the condition);
- Check and tighten all connections;
- Control cabinet, clean and checkout;

- DLRO (Ductor Test) before and after; and
- Operational Test.

Recloser with Vacuum Bottles

- Hi-Pot test.

The Class #4 inspection on ACB's is to include, but is not limited to the following items:

- DLRO (Ductor Test) before and after;
- Inspect all contacts - clean and put protective grease coating on;
- Inspect and clean all ARC chutes;
- Inspect and test all Micro and Aux. contacts (close and trip circuit);
- Check and tighten all connections; and
- Operational Test.

References:

All inspection and maintenance records are retained electronically on a work management system (WMS). Repeated callouts and equipment failures that show an abnormal trend are flagged by the work management system. The Doble power factor testing, transformer gas in oil analysis and infrared inspection records are stored electronically.