ML 223574

ORDER NO. 88989

IN THE MATTER OF THE INVESTIGATION OF AN ACCIDENT CAUSED BY CONTACT WITH AN ELECTRIFIED GUY WIRE OWNED BY DELMARVA POWER & LIGHT COMPANY	* * * * * * * *	BEFORE THE PUBLIC SERVICE COMMISSION OF MARYLAND CASE NO. 9493

Issued: January 11, 2019

On October 23, 2018, the Maryland Public Service Commission ("Commission") issued Order No. 88879 directing Delmarva Power & Light Company ("Delmarva") to respond to the June 7, 2018 report submitted by the Commission's Engineering Staff ("Staff Report") regarding an Electric Utility Accident Notice and Investigation Form EN-6 ("EN-6 Report")—a report disclosing a fatal accident on September 19, 2017, at the Wicomico County Landfill in Salisbury, Maryland.[1] Staff recommended that the Commission issue an order directing Delmarva to show cause why a civil penalty should not be imposed pursuant to Public Utilities Article ("PUA"), *Annotated Code of Maryland*, § 13-202. Delmarva filed its Response to the Staff Report on November 13, 2018, along with a Corrective Action Plan ("CAP").[2]

Delmarva's Response and CAP lack certain information necessary for a decision at this time on the Staff's recommendation. Accordingly and as described below, the

[1] Order No. 88879 initiated a new docket to investigate whether Delmarva failed to provide safe facilities and failed to note the unsafe condition of a distribution pole through its inspection programs, directed Delmarva to file a response to the Staff Report, and further directed the Company to provide a corrective action plan to address any National Electrical Safety Code Standards ("NESC") compliance issues described in the Staff Report.

[2] ML# 222870 dated November 13, 2018.

Commission directs Delmarva to provide a follow-up report to address those concerns. The Commission will address the Staff's recommendation regarding an order to show cause at a later time.

1. Background

On September 19, 2017, Mr. James Blodgett was operating a tractor-style lawnmower at the Wicomico County Landfill. While operating the mower, Mr. Blodgett collided with a guy wire attached to Delmarva electric distribution pole 45888-93852 6708/257 (the "Pole"). The guy wire detached from its anchor and, suddenly free of tension, came into contact with the Pole's A-phase conductor. The guy wire in question did not include an insulator. As a result, when the wire became slack and contacted the A-phase conductor, the entire wire became energized. Mr. Blodgett suffered significant thermal burns and was transported to Johns Hopkins Bayview Burn Center in Baltimore, Maryland, where he died on September 28, 2017.[3]

2. Staff's Report

In its June 7, 2018 report, Staff asserted that this incident revealed several Code of Maryland Regulations ("COMAR") and National Electrical Safety Code Standards ("NESC") rule violations, including:

- Failure to comply with COMAR 20.50.02.02A, requiring use of the latest revised version of "incorporated by reference" publications listed therein as standards of accepted good engineering practice, namely NESC, ANSI C2-2000;

[3] Staff Report at 4-5.

- Failure to comply with NESC Rule 121A, requiring that electric equipment shall be inspected and maintained at such intervals as experience has shown to be necessary, and further requiring that equipment or wiring found to be defective be put in good order or permanently disconnected; and

- Failure to comply with NESC Rule 283B1 as it existed at the time the Pole was erected (in 1949) requiring that an insulator be located in each guy which is attached to a pole or structure carrying any supply conductors of more than 300 volts to ground and not more than 15,000 volts between conductors, or in any guy which is exposed to such voltages, and further requiring that such guy insulator should be located at least 8 feet above the ground.

Staff also recommended that the Commission require Delmarva to submit a corrective action plan that addressed the NESC compliance issues described in the Staff Report on all distribution poles across Delmarva's Maryland service territory.

3. Delmarva's Response and Corrective Action Plan

In its November 13, 2018 Response to Staff Report and CAP, Delmarva acknowledges that, at the time of the September 2017 accident, the Pole was out of compliance with NESC Rule 283B because it lacked an insulator.[4] Delmarva argues,

[4] Delmarva Response at 4.

however, that it has not violated NESC Rule 121A—or by extension COMAR 20.50.02.02A—and that it has engaged in extensive corrective action.

A. Delmarva's maintenance practices prior to September 2017

Delmarva submits that prior to the September 2017 accident it was in compliance with NESC Rule 121A, which provides: "electric equipment shall be inspected and maintained at such intervals as experience has shown to be necessary. Equipment or wiring found to be defective shall be put in good order or permanently disconnected."[5]

On this point, Delmarva represents that it "has in place inspection programs that are conducted at intervals that comply with COMAR requirements and good engineering practice" and "has in place guidelines to remediate defective equipment based on experience and good engineering practice."[6] As it pertains to the Pole in question, Delmarva represents that it conducted several recent inspections prior to September 2017, including a Ground Line Wood Pole inspection, a Transmission Line inspection, and a Contact Voltage inspection. The most recent Ground Line Wood Pole inspection (which are conducted every 10 years per COMAR requirements and company policies) and Transmission Line inspection failed to identify the missing insulator relevant to this case, and Delmarva acknowledges that the defect should have been, but was not, identified by the contractor who performed the Ground Line Wood Pole inspection.[7]

Delmarva's records show that a December 8, 2015 Contact Voltage inspection—also conducted by a contractor—did identify that the guy wire in question

[5] This rule is echoed in COMAR 20.50.02.04, which provides in pertinent part: "Each utility shall adopt written operation and maintenance procedures for its electric plant in order to determine the necessity for replacement and repair. The frequency of the various procedures shall be based on the utility's experience and accepted good practice."
[6] Delmarva Response at 7.
[7] Delmarva Response at 5-6.

was neither insulated nor grounded. Delmarva represents that this defect was coded into its maintenance system for remediation but that the remediation work had not been completed prior to the tragic accident on September 19, 2017. However, shortly after the accident, the Pole was brought into compliance.

At the time of the accident, Delmarva's priority standards for remediating guy wire compliance issues provided 720 days for remediation of this type of condition—a remediation priority that Delmarva codes as "P40." Delmarva's explanation for this past practice is that "Delmarva Power had not had any adverse incidents occur as a result of missing insulators on down guy wires, accordingly, as the occurrence of an incident as a result of the condition was a remote and unlikely event, the P40 designation at time of the accident was appropriate."[8]

B. Delmarva's subsequent corrective actions

Delmarva identifies in its Response a number of actions taken since the incident as part of its CAP. The Company's corrective actions fall into two categories: (1) changes in policies and training, and (2) changes in inspections and remediation procedures.

Delmarva identifies several changes that have been made to its policies and training in response to the September 2017 incident. First, Delmarva has changed the priority for down guys missing a ground wire or insulator from P40—requiring remediation within 720 days—to priority designation P30—requiring remediation within 180 days. Second, Delmarva has changed the scope of work of guy wire inspections to ensure that strain insulators are compliant. Third, Delmarva has prepared training

[8] *Id*. at 8.

documents regarding guy wire standards and presented the training material to its contractors. And fourth, Delmarva has created performance indicators to track corrective maintenance work orders.

Delmarva also represents that it has undertaken a review of all existing guy wire maintenance work orders and that necessary remediation work has been completed on all poles owned by Delmarva. Notably, an initial desk review by Delmarva of outstanding work orders identified 967 down guy wire compliance issues that required field verification, but when verifications of these were conducted by Delmarva's contractor, that contractor determined that 357—more than one third—had been incorrectly identified as deficient and did not require remediation after all.

Delmarva's review also revealed that, as of the time of filing, there remained 33 customer-owned poles with outstanding guy wire insulator issues. Delmarva was awaiting responses from the owners of those poles regarding authorization to proceed with the work.

Finally, in November 2017, Delmarva engaged an engineering consultant to conduct an inspection of all of its transmission circuits in the Delmarva Power Maryland Region, including 975 guyed structures; 348 were determined to be deficient under NESC standards. As of November 1, 2018, there remained unremediated deficiencies on 14 (of 51 applicable) transmission circuits. Delmarva represents that those deficiencies will all have been remediated by December 31, 2018.

4. Commission Decision

The safety of the public and utility personnel is of primary importance to the Commission. In this instance, both Staff and Delmarva agree that the Pole was non-compliant with COMAR and NESC standards due to the absence of a guy wire insulator. The question that remains for the Commission to consider is whether to issue a show cause order on whether a civil penalty should be imposed under PUA § 13-202.

Given Delmarva's representations that the deficiency should have been detected earlier by one of its contractors during a routine pole inspection and that Delmarva has subsequently changed its training and policies for inspection and remediation, the Commission seeks additional information that any deficiencies in those practices have been identified and brought into compliance with industry standards. Although the Response provides some information about Delmarva's past practices and the changes that have been made, it lacks specific details regarding where the problems were and whether the appropriate changes were made. That information is necessary in order for the Commission to make an informed evaluation as to whether Delmarva's previous inspection and maintenance practices were non-compliant with NESC standards and COMAR and, if so, whether appropriate corrective action has been taken to reduce the risk of any future tragedies.

Accordingly, Delmarva is directed to file a follow-up report. In addition to providing an update on the implementation of the CAP, the follow-up report should address the following five issues.

First, Delmarva is directed to provide more information regarding its decision to change the priority for down guy wires missing a ground or insulator from requiring

remediation within 720 days to now requiring remediation within 180 days. This information should include industry standards, comparison with other similarly sized utilities, any cost-benefit analyses performed, and any other factors that Delmarva considered in making its determination.

Second, the Commission notes that Delmarva's Response indicates a substantial reliance on outside contractors to perform inspections. Delmarva is directed to provide additional information about the extent and justification for Delmarva's reliance on outside contractors as opposed to internal personnel. This information should reference industry standards, comparison with other similarly sized utilities, any cost-benefit analyses performed, and any other factors that Delmarva considered in making its determination.

Third, the Commission notes that Delmarva's Response refers to changes in the scope of work of guy wire inspections as well as related training materials and presentations given to the contractors who perform those inspections. Delmarva is directed to provide additional information regarding the type training that was given to both Delmarva contractors and internal employees who performed pole and guy wire inspections prior to September 2017. This information should include the form and content of training, the frequency of training including any program of continuing education, who was giving the training, who received the training, and any other relevant information. Delmarva should also provide information about exactly what changes have been implemented in the training programs subsequent to September 2017, the reasons for those changes, and how that new information was presented to those who had received the prior training. This information also should reference industry standards,

comparison with other similarly sized utilities, any cost-benefit analyses performed, any deficiencies identified in the training programs in existence prior to September 2017, and any other factors that Delmarva considered in making its determination.

Fourth, Delmarva has previously committed to remedy all remaining identified and unremedied deficiencies on the guyed transmission structures in the Delmarva Power Maryland Region by December 31, 2018, as noted above. Delmarva is directed to report on the status of completing the related work on their transmission circuits.

Finally, Delmarva's Response states that there were 33 customer-owned poles in need of remediation for guy wire insulator issues. Delmarva is directed to provide an update on the status of those poles, including whether remediation has been completed and any follow-up by Delmarva with those customers.

IT IS THEREFORE, this 11th day of January, Two Thousand Nineteen, by the Public Service Commission of Maryland,

ORDERED: That Delmarva Power & Light Company is hereby directed to file a supplemental report addressing the issues raised above within 90 days of the date of this Order.

By Direction of the Commission,

/s/ Terry J. Romine

Terry J. Romine
Executive Secretary