



January 2, 2020

To: SISC Property & Liability Member Districts
From: Robert J. Kretzmer
Director, Property & Liability Division
Subject: Light Pole Inspection and Maintenance

Recently there was a collapse of a lighting pole at one of our facilities parking areas. Fortunately, no one was injured. However, it could have been catastrophic if the parking lot was occupied at the time.

Corrosion damage due to peeling paint on light poles is one of the most often observed forms of damage encountered by these structures. If repairs are not undertaken, there is an ever increasing risk that metal loss of the underlying steel substrate will take place that can potentially lead to pole collapse, property damage, or worse yet, bodily harm. In addition, structural damage from fatigue, overloading or extreme weather events can occur at any time. The methods used for pole repair include baseplate weld repair, adequate draining source installation, fitting of steel repair plates and welding of new plate to existing shafts. Frequency of inspections depend on several factors, the following are some examples that may increase the frequency:

- The poles located in a landscaped area that is irrigated.
- The pole's foundation is flush or only inches above grade versus the foundation is two feet or more above grade.
- For poles in an irrigated area, the fertilizer being added to the irrigation system or being applied before it is sprayed will affect the frequency.
- The water in the area being found to have a high mineral content, particularly salts.
- The proximity to the ocean such as a three to four mile distance will drastically affect the life of the pole.

If poles are in a paved area surrounded by either asphalt or concrete and only subjected to water from rain or dew, inspections every five years should be adequate. In our experience, they will last indefinitely as long as the above examples are not involved.

If any other factors should apply, such as extreme weather conditions including snow and ice or a significant presence of rust, it is recommended that these poles be inspected annually. If the poles are newer but still subject to such weather conditions, an inspection frequency of every other year should be adequate.

Poles have been known to fail from rust in as a little as seven years. These were in landscaped/irrigated areas and the water had a high mineral content. The typical lifespan of a light pole is 10-15 years in a landscaped area. This however, is dependent on how much the poles are subjected to water. Some light poles get directly sprayed by sprinklers almost daily, while others are less direct. The moisture wicking up the concrete foundation can result in the base of the pole staying damp a large part of the time.

In many cases, there is corrosion that can't be detected with a basic visual inspection. Therefore, we recommend using a licensed electrical contractor that specializes in these type of inspections. We advise that the district retain a copy of the inspection report. The cost of these inspections will vary by the district location as well as the number of poles needing to be inspected. SISC safety credit funds can be utilized for these inspections.

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