

## Dear Electric Utility Professional.

We are pleased to provide the following NCI APPLICATION NOTE, once again showing the versatility of the DayCor® Camera and the cost savings possible from its use. Rent the Superb Camera from Us!

With the advent of Non Ceramic High Voltage Insulators, i.e. Insulators made of Plastic Polymer; a new importance is reached in the detection and eradication of Electric Corona on high-tension equipment such as overhead power lines and substations.



Picture courtesy Ofil Ltd.

Above: Polymer Insulators with Corona Damage

Above: Missing Corona Ring

Many installed polymer insulators do not have protection for Corona damage. Some insulators are not equipped with grading Corona rings and others have damaged or missing rings. Some grading Corona rings are not installed correctly or may have the wrong design or size.

The invisible Corona on a polymer insulator and its hardware can seriously damage the insulator, resulting in flash-over or flash-under conditions. Electric Corona on a polymer insulator can damage the sheds and the membrane keeping the fiberglass rod system intact. If this happens pin holes can let moisture inside the protective membrane and the insulator will have an internal short. The Corona may also damage the insulator so that it sheers off. The Corona can corrode the insulator ends and jeopardize the structural integrity of the insulator. Electric Corona together with the Nitrogen and moisture in the air **produces Ozone and Nitric Acid! A no-no for Polymers.**



Picture courtesy Ofil Ltd.

Above: Severe loss of material due to Corona.

Above: Faulty 110 kV Insulator Removed & Tested at 50 kV showing Corona!

In any of these cases, the possibility of a line drop is **real** and could happen at any time when Corona is existent on the insulator and damage has been done. The early detection of Electrical Corona is extremely important to keep the integrity of the electrical grid.

The DayCor® Superb™ Solarblind UVc Corona Detection Camera System makes the detection of Corona possible even during daytime conditions in bright sun light conditions. The DayCor® Corona Camera is the most important tool available to the Electric Utility Industry in its quest to improve the Electrical Grid by finding and correcting Electrical Corona Problems.

**We at EKLUND INFRARED/Eklund Innovation Inc., Rent the DayCor® Superb™ on a Weekly or Monthly Basis. We provide Corona Detection Inspection! Please contact us for pricing and availability!**

**EKLUND INFRARED Inc. is your local UVc Corona Camera specialist.  
EKLUND Corona Inspection! Solar Blind UV Corona Detection Cameras.**

***Innovation, Performance, Reliability, Excellence.***

We look forward to hearing from you. Sincerely Yours,

**EKLUND INFRARED Inc.**, 2985 Gordy Parkway, Marietta, GA 30066. Your UV Corona Camera Specialists™  
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