# East Coast Filter, Inc.

## INDUSTRIAL FILTRATION & WASTEWATER TREATMENT

### ANTI-STATIC VARNISH REMOVAL FILTER ELEMENTS

#### The Challenge

A significant Power Manufacturer in the Southeast of the United States began experiencing an increase in varnish build up from the Lube Oil being used in their 8000 H Gas Turbines. The initial filters that were installed with the OEM Equipment generated a significant amount of varnish within a very short period of time. Varnish build up can cause excessive wear on components through out the plant as well as potential for spark discharge, so it is extremely important to treat and fix the issue of varnish build up as quickly as possi-

With a further detailed inspection of the previously installed OEM Lube Oil Filter Elements, a large amount of varnish had been deposited on the inner core of the element after only one month in operation, indicating a severe issue with static discharge. The conductivity levels of the Lube Oil were evaluated at 4 pS/m which reflects a high possibility of static discharge.

It was also discovered during the inspection, that a noticeable sound could be heard within the Main Lube Oil Filter Vessels which was believed to be caused by the static discharge being produced by the generated varnish coupled with the velocity of Oil flowing through the filter. Finding a solution that could improve the noise as well as the appearance of varnish would be the ultimate goal.

#### **The Solution**

By working diligently with Hilco Engineering as well as the Gas Turbine OEM, it was determined that the best solution for the varnish and sound issue would be to install the Hilco PH-CGJ Style Anti-Static Filter Elements within the existing Lube Oil Vessels.

These Filter Elements are designed with a proprietary Anti-Static media that helps disperse any static charge build up that could have occurred before it could be discharged, thus eliminating the chance for sparking potential as well as exceptional particulate removal.

#### The Results

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1-877-ANY-FILTER www.eastcoastfilter.com With the installation of the Hilco PH-CGJ Anti Static Filter Elements, the sound associated with the old Elements within the filter Vessel had been eliminated completely.

Most importantly, after five months of standard operation, the Hilco PH-CGJ Cartridges had no sign of varnish build up and the original value of the Lube Oil was restored.



Hilco's PH-CGJ Filter Element