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City of London
Mr. Mike Andryc
Manager of Facilities Operations
663 Bathurst St.
London, Ont. N5X 1P8

To: Mike Andryc:

I would like to update you on the results we have seen after installing Total Protection Solutions (TPS) surge suppression. In 2002 we installed new energy efficient lighting at London City Hall, since that time we have saved on energy however found that I was replacing fluorescent lamps and ballasts at an ever increasing rate.

This issue became a concern in terms of maintenance, lighting quality and replacement costs of the lamps and ballasts. I was also concerned on how this problem was affecting the office personnel's working environment.

Frustrated with the seemed a chronic problem our electrical distributor suggested we look at (TPS) surge protection, a site visit was conducted and recommendations were made to alleviate this issue.

I had determined that (TPS) had by far the best performance with their filtering and coupled with the strength of the 30 year free replacement warranty offered us our best chance of protecting equipment and lighting from nuisance transients.

In October of 2006 I ordered and installed one of (TPS) surge suppression units on the 11th floor at the lighting distribution panel, all of the lamps and ballasts were replaced at that time in order to determine the effectiveness of the surge suppression.

I monitored over 300 fluorescent lamps and ballasts for a 6 month period to see if there would be any significant effect in terms of maintenance, replacement costs and lighting quality. We are pleased to say we have not had to replace any lamps or ballasts and the lighting quality is consistent on that floor.

Since then I have installed additional units on floors 10, 9 and 8 of the facility and to date have not replaced any lamps on these floors, keeping in mind as well that I did not change out the lamps and ballasts on these floors at the time of installation of the TPS equipment and I am still seeing remarkable results.

Payback has been less than one year on currently installed equipment, and I am pleased to report that "Total Protection Solutions" has done the job in protecting our lighting and has paid for itself in this short time.

I was also impressed to discover that the TPS surge suppression would protect all the circuits fed from the panel it was installed on, which meant that our computers and other sensitive equipment were also protected, eliminating the need for power strip surge protection at the computer terminals.

The following is an estimated calculation of replacement and maintenance costs of fluorescent tubes and ballasts annually:

- Fluorescent tubes - 1,404 @ \$ 2 per bulb = \$2,808.00
- Ballasts – 375 – from \$17 per ballast = \$6,375.00
- Maintenance costs - Service costs estimated \$5 for every 4 Bulbs = \$1,755.00
- Maintenance costs - \$15 Ballast = \$5,625.00

Total: \$16,563.00

Surge Suppression install: \$16,800.00

Obviously we will have tubes and ballast fail but not on the scope we had.

With the results currently seen with the TPS equipment installed it is estimated that 75% life has been added to our fluorescent lamps and ballasts. Our payback will be 12 months for our entire facility.

I plan to go forward in implementing TPS surge suppression on all floors.

I will also be implementing a strategy for TPS surge protection at the JL Taylor Building and the P.O.A. to protect lighting and computer equipment from the Gen Set transients and internally generated transient in the upcoming months.

Sincerely,



Joe Ferreira

ESD Department