From: David MacLeod, C.E.I., P.Eng.
Provincial Chief Electrical Inspector

Date: February 19, 2009

Subject: Advisory on Compact Fluorescent Lights (CFL’s)

There have been many inquiries from consumers who are concerned as to the manner in which CFL’s fail or come to the end-of-life.

The manner in which these type of lights fail or come to the end-of-life is not limited to one manufacturer, one wattage or to the cost of the bulb.

When CFL’s fail or come to the end-of-life they may show one or several of the following signs: emit smoke, an odour, a popping sound, flickering or a bright flash; and the plastic base may become discoloured, charred or deformed, however such an event is not typically evidence that a serious hazard exist.

Certification agencies have advised that this failure does not present a shock or fire hazard for approved products. There are no known fires reported in Nova Scotia associated with the failure of these lights.

A fire in this case, is when the failure of the light causes something besides the light to ignite or burn not just the failure of the light.

This picture is representative of CFL failures that have been reported.
The manner in which these lights fail may cause difficulty for the consumer to distinguish what is normal and what may be a possible fire or other hazard. However as indicated above such an event is not typically evidence that a serious hazard does exist and it is known that a very small percentage of these lights fail in a manner as previously described.

It should be noted that there is no known toxicity with the smoke that may be emitted during failure of the light but some people may be more sensitive than others to the strong odour.

When purchasing CFL’s, ensure that the lights are properly approved which requires that the certification mark be directly on the product such as the base of the light. The most common acceptable certification marks that you may see are CSA, cUL and cETL, note the last two must have the small ”c” as indicated in order to be acceptable.

Do not use any lights that do not have any certification mark directly on the product.

As a precaution consumers should replace any of their CFL’s at the first sign of failure or aging.

Early warning signs are flickering, a bright orange or red glow, popping sounds, an odour, or browning of the ballast enclosure (base).

Consumers are encouraged to follow the instructions that come with or on the light and use them in the manner as instructed.

In most instances these type of lights are intended to be used where the light stays on for an extended period of time. Applications where the lights are turned on and off repeatedly may cause these lights to fail prematurely.

In general the lights last longer if turned on for several hours instead of minutes at a time. Most of the damage to the electronic components in the base of the light is done during the start up.

Unless otherwise specified, CFL’s should not be used: in totally enclosed recessed fixtures; with dimmer switches; in touch lamps with photocells or with electronic timers; where exposed to weather; or where exposed to water.

We have been and continue to work with the manufacturers and certifications organizations to resolve the concerns of the consumer and to ensure continued safety to the public through the use of safe products.

Any further questions contact: David MacLeod at 424-8018 or by email at macleodd@gov.ns.ca.