
January 2001

Dangers associated with gasoline spraying and incandescent extension handlamps (incandescent trouble light)

The Electrical Safety Authority, together with CSA International and the Ontario Fire Marshal, are issuing a warning that Incandescent Handlamps, and other incandescent lights should not be used when working on fuel system or any other flammable liquids of gas powered vehicles. Investigations by the Ontario Fire Marshal have discovered that the use of incandescent lighting fixtures near flammable liquids could result in serious or fatal explosions.

This situation occurs when a liquid such as gasoline comes in contact with incandescent lights causing a thermal shock, which shatters the bulb, or when the gasoline comes into contact with the incandescent trouble light, that has broken after being dropped. When flammable gasoline vapors mix with a glowing filament, they ignite causing an explosion and possibly fire.

Over the past few years there have been isolated fatalities from people using Incandescent Handlamps near flammable liquids, and over \$5 million in reported damages. In the past six months, there have been incidents where one individual suffered serious burns and a second succumbed to burns when gasoline came in contact with incandescent extension handlamps.

Starting November 30, 2000 the CSA International will require that any Manufacturer holding a CSA International Certificate with respect to Incandescent Handlamps (portable luminaries) retest to ensure they comply with the extension handlamps enclosure integrity abnormal test.

CSA International has prepared a Technical Information Letter that clearly states the requirements for the condition where extension handlamps may be used in the proximity of vehicles or equipment. All handlamps that do not comply will be marked:

“CAUTION: DO NOT USE IN THE PROXIMITY OF VEHICLES OR EQUIPMENT, WHERE THERE IS A RISK OF FLAMMABLE LIQUIDS COMING INTO CONTACT WITH THE HANDLAMP.”

The Electrical Safety Authority is interested in ensuring the safe use of electrical equipment in Ontario. As part of our electrical inspection process, we will be checking to ensure applications comply with this Technical Information Letter. Please be aware of the requirements of Rule 20-110 (for commercial garages) shall comply with the following:

- They shall be of the totally enclosed gasketed type, equipped with handle, lamp holder, hook, and substantial guard attached to the lamp holder or handle, and all exterior surfaces which may come in contact with battery terminals, wiring terminals, or other objects shall be of non-conducting materials or shall be effectively protected with an insulating jacket; and
 - The lamp holders shall be of unswitched type; and
 - They shall not be provided with receptacles for attachment plugs.
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