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

The Electrical Safety Authority (ESA), 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 systems or with any other flammable liquids of gas powered vehicles. Investigations conducted 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 an 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 years there have been incidents where individuals suffered serious burns when gasoline came in contact with incandescent extension handlamps.

Extension handlamps marked with the following Caution markings shall not be used in the proximity of gasoline powered vehicles.

“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.”

Please be aware of the requirements of Rule 20-110 for portable luminaires used in commercial repair garages:

- 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.