CITY OF HAMILTON - CORPORATE SAFETY GUIDELINE

DEVELOPED BY: CORPORATE WORKPLACE SAFETY SECTION
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APPROVED BY: Corporate Management Team

Guideline # COH-RQ-GD-012

VEHICLE REFUELLING

Refuelling Safety Guidelines:

Here are some “refuelling safety guidelines” that will help keep you safe when refuelling your vehicle or filling up gasoline storage containers:

• Only workers with appropriate WHMIS training, including specific reference to the specific Material Safety Data Sheet for the fuel being used, may refuel vehicles and/or equipment.

• Approach pumps slowly and using caution.

• Ensure sufficient space is left between vehicle and dispenser.

• Turn off your vehicle engine while refuelling. Put your vehicle in park and/or set the emergency brake. Disable or turn off any auxiliary sources of ignition such as a hot box heater, or other type of equipment with pilot lights.

• Do not smoke, light matches or lighters while refuelling at the pump or when using fuel anywhere else.

• Use only the refuelling latch provided on the fuel dispenser nozzle -- never jam the refuelling latch on the nozzle open.

• If a static-caused fire occurs when refuelling, leave the nozzle in the fill pipe and back away from the vehicle. Notify the station attendant or your supervisor immediately. Call 911.

• Do not over-fill or top off your vehicle tank, which can cause fuel spillage.

• Avoid prolonged breathing of fuel vapours. Use fuel only in open areas that get plenty of fresh air. Keep your face away from the nozzle or container opening.

• Never siphon fuel by mouth nor put gasoline in your mouth for any reason. Gasoline can be harmful or fatal if swallowed. If someone swallows gasoline, do not induce vomiting. Contact a doctor immediately.

• Use fuel as a motor fuel only. Never use fuel to wash your hands or as a cleaning solvent.

• Never allow children to operate the pump.

• Never leave the vehicle unattended while refueling and never use a device to hold the discharge lever in the open position. Ensure that the delivery nozzle has been properly returned to the pump after filling.
Filling Portable Containers:

- Only store fuel in approved containers as required by CSA or ULC standards. Never store fuel in glass or any other unapproved containers.

- If using metal containers, make sure that they are properly bonded and grounded to prevent static discharge.

- When dispensing fuel into an approved container place it on the ground while refuelling to avoid a possible static electricity ignition of fuel vapours. Containers should never be filled while inside a building, vehicle or its trunk, the bed of a pickup truck or the floor of a trailer.

- When filling a portable container, manually control the nozzle valve throughout the filling process. Fill a portable container slowly to decrease the chance of static electricity build up and minimize spilling or splattering.

- Fill container no more than 95 percent full to allow for expansion.

- Place cap tightly on the container after filling - do not use containers that do not seal properly.

- If the fuel spills on the container, make sure that it has evaporated before you place the container in your vehicle. Report spills to the attendant.

- When transporting fuel in a portable container make sure it is secured against tipping and sliding, and never leave it in direct sunlight or in the trunk of a car.

- Never leave the container unattended while refueling and never use a device to hold the discharge lever in the open position. Ensure that the delivery nozzle has been properly returned to the pump after filling.

Static electricity:

Static electricity-related incidents at "refuelling" outlets are extremely unusual, but the potential for them to happen appears to be the highest during cool and dry climate conditions. In rare circumstances, these static related incidents have resulted in brief flash fires occurring at the fill point. Motorists can take steps to minimize these and other potential fuelling hazards by following safe refuelling procedures all year long.

- Motorists should not get back into their vehicles while pumping fuel. It may be a temptation to get back in the car when it is cold, but the average fill-up takes only two minutes, and staying outside greatly minimizes the likelihood of any static electricity build-up that could be discharged at the nozzle.

A build-up of static electricity can be caused by re-entering a vehicle during fuelling, particularly in cool or cold and dry climate conditions. If the motorist then returns to the vehicle fill pipe during refuelling, the static may discharge at the fill point, causing a flash fire or small sustained fire with refuelling vapours.

- Motorists who cannot avoid getting back into the vehicle should always first touch a metal part of the vehicle with a bare hand, such as the door, or some other metal surface, away from the fill point upon exiting the vehicle.

LPG Procedures:

Only workers, who are qualified, that is can provide an ROT (Record of Training) in the operation of the type of vehicle and for LPG refuelling, are authorized to refuel LPG or Natural Gas vehicles.
a) Stop the vehicle in fuel storage area. Shut off the machine with forks down, in neutral and set the brake.

b) If not out of fuel, follow step a), but leave the engine running. Turn the valve on the tank off completely and allow engine to run out of fuel. When vehicle runs out of fuel, turn off ignition.

c) With the LPG tank valve closed, remove the fuel hose from the tank.

d) Remove the empty tank and replace with a full tank using good lifting techniques. Ensure that tank position allows proper connection for the fuel hose and that straps can be fastened securely. Connect the fuel hose to the full tank. **HAND TIGHTEN ONLY!** Open the valve and check for leaks, both visually and audibly.

e) Place empty tank in the correct location.

**Note:**

Please refer to attached information below:

+ New signage for fueling stations.
+ Motorola disclaimer on cell phones and static electricity.
FOR YOUR SAFETY

NO SMOKING

TURN CELL PHONES OFF

TURN IGNITION OFF

ELIMINATE ANY SOURCE OF IGNITION WITHIN 3 METRES OF PRODUCT BEING DISPENSED

APPROVED PORTABLE CONTAINERS

- Metal or plastic portable container bearing the label of ASMM or CSA
- Portable fuel tank for marine use
- Automotive
- Bearing the expression "MINI" followed by "NOT" followed by "STORAGE" or "TANK" followed by "BLAST"
- Of less than 5L capacity and bearing the expression "MINI" followed by "NOT" followed by "STORAGE" or "TANK" followed by "BLAST"
- Confirming to ANSI/ASTM E 280-90, STANDARD SPECIFICATION FOR PLASTIC CONTAINERS
- Container specifications for portable, non-refillable, non-industrial containers for consumer use

NOT FILLED BEYOND ITS NOMINAL CAPACITY

D.G.H.A. REGULATION 8.2.11

FUEL STATION IN CASE OF EMERGENCY

1. Stop flow of liquid fuel by tripping the emergency switch
2. Eliminate or remove any potential sources of sparks
3. Evacuate the area
4. Call the appropriate emergency personnel

Minor Spills 905-546-5168 & 905-973-4388
City of Burlington Ltd
(Supervisor—Fuel System)

Major Spills 1-800-268-6080 & 905-973-4388
(Ministry of the Environment
(Supervisor—Fuel System)

Leaks (eg. nozzles, hoses, dispensers) 905-546-2472
(Fuel Cell)

Fire or Explosion 9-1-1 & 905-973-4399
(Supervisor—Fuel System)

TO AVOID SPILLAGE EASE UP ON NOZZLE TRIGGER WHEN FILLING THE TOP PORTION OF THE TANK

General Fuel Station Inquiries 905-546-2472
24 hr. Emergency Fuel Service/Access 905-973-4388
Use of Mobile Phones and Portable Radios in Gasoline Stations
A Motorola Background Paper
3 May 2002

Over the last several years, there has been occasional speculation in the media and over the Internet that the use of mobile phones at gasoline stations could pose a risk of fire or explosion. This issue can be traced to reports of alleged incidents that have been investigated and never verified. Having looked into this issue at some length, Motorola can report that:

• We know of no documented incident anywhere in the world where the use of a mobile phone or portable radio was identified as the cause of a fire or explosion in a gasoline station.
• There is no credible reason to believe that the use of these products poses any such hazard.

In response to rumours that attracted considerable attention in 1999, Motorola commissioned a review by an independent scientific, engineering and technical consulting firm: Exponent Failure Analysis Associates. Exponent concluded in December 1999 that “the use of a cell phone at a gasoline filling station under normal operating conditions presents a negligible hazard” and that the likelihood of such an accident under any conditions “is very remote.”

“Automobiles (which have numerous potential ignition sources) pose a greater ignition hazard,” the report said. “Finally, other potential ignition sources are present, such as static discharge between a person and a vehicle.”

An analysis by the Center for the Study of Wireless Electromagnetic Compatibility Center at the University of Oklahoma reached a similar conclusion in August 2001. It said research into this issue “provided virtually no evidence to suggest that cell phones pose a hazard at gas stations.”

“While it may be theoretically possible for a spark from a cell phone battery to ignite gas vapour under very precise conditions, the historical evidence does not support the need for further research,” the report said. “Until there is evidence to the contrary, we suggest that no further action be initiated in this regard, and that no recommendations for further action are required of the wireless phone or petroleum industries.”