



# MAHARASHTRA NATURAL GAS LIMITED

(A JOINT VENTURE OF GAIL (India) LTD & BPCL)

*Dedicated for 'Cleaner & Greener' environment*

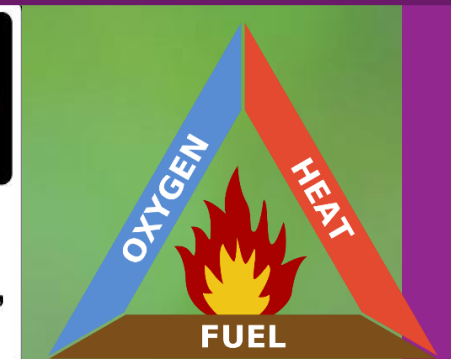
## CNG Incidents



Incident : Flash Fire due to Gas Leak of CNG Cylinder. Place : Bharat Petroleum, Petrol Pump -Mitali Service Station Around 630 PM ,Auto Rickshaw (MH 12 EQ 1825) came for gas filling at Mittali CNG (19:00 IST). Post filling CNG in autorickshaw the receptacle o-ring of NRV installed on vehicle got stuck and NRV became inoperative, filler closed cylinder valve and removed hose nozzle. Auto driver suddenly opened cylinder valve without checking NRV position, pressurized gas came out and flash fire occurred . Ignition source may be spark developed due to fouling of electrical cables under the chasis. ESD operated by Compressor operator. Fire fighting carried out by Filler and Station staff and extinguished the fire. There was no damage to CNG asset and major incident averted due to timely use of ESD .

## DO'S AND DON'TS ( LEARNING)

- **Que management is must at every CNG stations so to ensure minimum vehicle and personnel presence in CNG Station premises.**
- **Fillers / Dispenser operators should strictly and continuously follow SOP during filling of vehicle which includes:-**
  - Proper Queing of vehicle and Que managemnt at CNG stations.**
  - Ensure vehicles are closed / OFF before filling CNG .**
  - Hand break are applied properly.**
  - No individual to be present inside or nearby the CNG filling points.**
  - Fillers must follow “NO PLATE – NO GAS” rule.**
  - All communications related to any incident should be reported to MNGL ( 24 X 7 ) Emergency control roomat at **9011676767**.**



**ALL DEALERS ARE REQUESTED TO MAKE SURE THE ABOVE MENTIONED POINTS ARE STRICTLY FOLLOWED !**

- Incident : Flash Fire due to Gas Leak of CNG Cylinder.
- Place : Rathi CNG, Katraj
- Auto Rickshaw (MH 12 AU 8915) came for gas filling at Rathi CNG (19:00 IST). Auto driver inserted key to vehicle after Filler attached filling hose. During investigation, it IS observed that there was a leakage in gas cylinder tubing & an ignition source (Key) lead to a small flash fire underneath auto which created a panic at the station. There was no damage to auto as well as any CNG asset and major tragedy averted due to ESD use.

## DO'S AND DON'TS ( LEARNING)

- **Que management is must at every CNG stations so to ensure minimum vehicle and personnel presence in CNG Station premises.**
- **Fillers / Dispenser operators should strictly and continuously follow SOP during filling of vehicle which includes:-**
  - Proper placing of vehicle.**
  - Ensure all circuits inside vehicle are closed / OFF.**
  - Hand break applied.**
  - No individual to be present inside or nearby filling point.**
  - Fillers must follow “NO PLATE – NO GAS” rule.**
- **ESD should be operational at all dispensers and Station sales room.**
- **Well maintained FIRE EXTINGUISHER must be present on Dispenser Island for tackling fire emergency.**



**ALL DEALERS ARE REQUESTED TO MAKE SURE THE ABOVE MENTIONED POINTS ARE STRICTLY FOLLOWED !**



# Safety Alert

## Learning from incident at MS Shivaji Nagar

### INCIDENT

On 2<sup>nd</sup> September 2019 at MS Shivaji Nagar dispenser no.3, bus number R 412 was caught fire at 9:00 PM. DSM And Fire technician extinguisher the fire and move the vehicle from dispenser unit.

### ROOT CAUSES

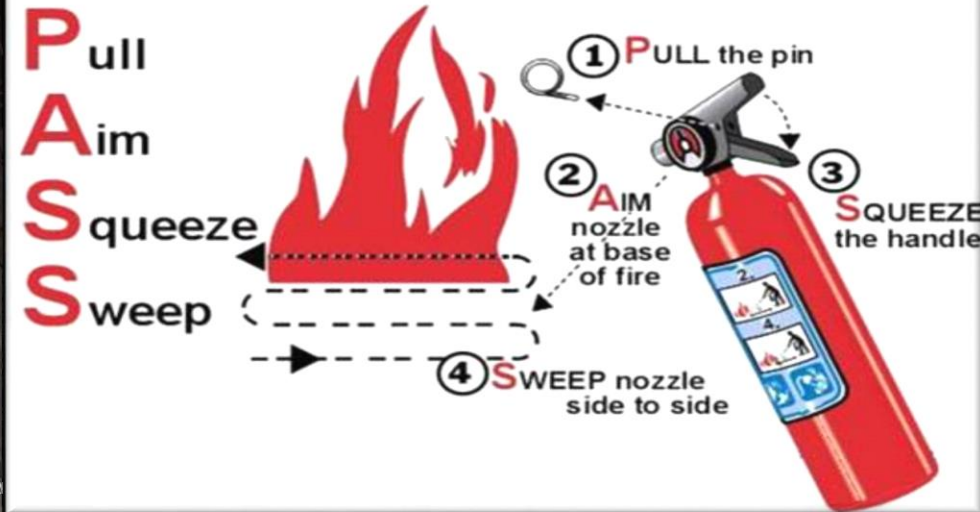
Poor maintenance of PMPML Bus battery terminal.

### RECOMMENDED ACTIONS

- 1) Standard Operating Procedure to be strictly followed at every CNG Station. (Switch off the Vehicle)
- 2) All dispenser operator or filler to be instructed to strictly follow practice of  
**“NO PLATE NO GAS”**
- 3) PMPML TO BE SHARED WITH DATA ON SAFETY ISSUES.



### REMEMBER!!! How to operate an Extinguisher



MNGL Emergency Number- 9011676767

**INCIDENT : Dispensing Hose detaching the coupling at Dispenser, M.S. Chikhali.  
DATED: 27-03-2020**



**Scenario**

- ✓ Bus Driver: Kishor of Bus No. MAT482035LOA01130 of Hansa Travels arrived at 11:12 p.m. at M.S.Chikhli.
- ✓ The Dispensing Hose was been Connected by the bus driver himself. And he tried to operate himself but couldn't do so.
- ✓ He called the Filler on Duty: Narsing Krishnarao Nirmale to Assit and help.
- ✓ Since the lights were off above the dispenser and visibility was low he tried to operate the valves and the dispensing hose without any PPE's.
- ✓ Suddenly the dispensing hose got detached from the coupling and directly hit the Filler at the Left Ear.
- ✓ Immediately the Shift Incharge arrived at scene and operated ESD but faced difficulties then.
- ✓ The injured filler was taken to the hospital and was discharged at 3:30 a.m.

**Corrective & Preventive Action**

- ✓ Proper PPE's to be used along with SOP.
- ✓ CNG Filling must be only Done By The Staff and any others should be restricted.
- ✓ Proper Briefing to the Staff must be Given Before Hand.
- ✓ Proper Maintenance must be scheduled for the Equipment installed.
- ✓ Proper Lighting to be used.





# SOP for CNG Filling in Vehicle





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### Standard Operating Procedures

- ✓ Ensure proper parking of the vehicle in the dispensing area. & Parking break has been applied.
- ✓ Ensure that the engine of the vehicle has been switched off.
- ✓ Ensure all the electronic instruments like battery, lights, cassette player, transistor etc. are switched OFF.
- ✓ Ensure vehicle has valid identification label(metal plate)
- ✓ Ensure no naked flames ,matchstick and incense sticks
- ✓ Ensure dispenser display is reset ZERO before dispensing into vehicle.
- ✓ Ensure for no obvious leaks in the vehicle CNG system like regulator, valve, tubing etc.
- ✓ Ensure fuel connection is in good condition and matches with dispenser refuelling probe.
- ✓ Ensure the O ring of dispenser probe is in good condition.
- ✓ Ensure that there is no Passenger inside the vehicle before it enters in to dispensing area
- ✓ Mobile shall not be allowed inside the dispensing area.
- ✓ Never use repeat on –off practice (may be chance of over pressure, gas leakage, damage button )
- ✓ Shut off the suction valve and delivery valve while maintenance is undertaken.

#### In Case of Emergency

- Press stop button of dispenser .
- Close emergency isolation valve of dispenser .
- Press ESD of compressor located near dispensing area .

Battery terminals are open.

**UNSAFE FILLING**



RubberSheet used on battery terminals

**SAFE FILLING**





# MAHARASHTRA NATURAL GAS LIMITED

Plot No. 27, Narveer Tanajiwadi, PMPML Bus Depot Commercial Bldg.  
Shivaji Nagar, Pune - 411005.  
Tel.:020-25611000.

## DO'S AND DON'TS FOR DISPENSING STAFF

### Do's

- ✓ Ensure that ignition switch is switched OFF.
- ✓ Ensure that electronic instruments like cassette player, transistor etc. are switched OFF
- ✓ Ensure Vehicle has valid identification label (metal plate).
- ✓ Ensure no naked flames, matchstick and incense sticks
- ✓ Ensure dispenser display is rest "ZERO" before dispensing into vehicle.
- ✓ Check for no obvious leaks in the vehicle CNG system like regulator, valve, tubing etc.
- ✓ Ensure that there are no passengers and driver inside the vehicle during filling.
- ✓ Ensure fuel connection is in good condition and matches with dispenser refueling probe.
- ✓ Ensure that the 'O' ring of the dispenser refueling probe are in good condition.



### In case of any emergency :

- ★ Press stop button of dispenser
- ★ Close emergency isolation valve of dispenser
- ★ Press ESD of compressor located near dispensing area

### Don'ts

- ✗ Switch ON the ignition of engine.
- ✗ Switch ON electronic instruments like cassette player, transistor etc.
- ✗ Switch ON cellular phone.
- ✗ Use open flame in dispensing area.
- ✗ Smoke in dispensing area.
- ✗ Fill cylinder which does not meet statutory requirement.
- ✗ Fill cylinder without valid identification label ( metal plate).
- ✗ Under fill the cylinder below 200 bar (g) unless demanded by the customer.
- ✗ Over charge the customer.



सुरक्षा, नियमों का सबसे अच्छा हथियार है ।

THANK YOU