

Environmental Standard Operating Procedure			
Originating Office:  <b>Environmental Management Department</b>	Revision: Original	Prepared By:  Environmental Management Department	Approved By:  William Moog
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## Title: Compressed Natural Gas

### 1.0 PURPOSE

The purpose of this Standard Operating Procedure (SOP) is to provide environmental guidelines for managing the storage and distribution of compressed natural gas (CNG) at the CNG Vehicle Filling Station at Marine Corps Air Station (MCAS) Miramar.

### 2.0 APPLICATION

This guidance applies to those individuals who dispense CNG into vehicles, including individuals in buildings adjacent to CNG dispensing facilities.

### 3.0 REFERENCES

- 29 CFR 1910 (Code of Federal Regulations)
- 40 CFR
- 22 CCR (California Code of Regulations)
- MCO P11240.106
- MCO P11240.106b
- MCO 5090.2A (USMC Environmental Compliance and Protection Manual)
- EO 13423 (2007)

### 4.0 PROCEDURES

#### 3.1 Discussion:

It is the policy of the United States that Federal agencies conduct their environmental, transportation and energy-related activities under the law in support of their respective missions. In support of this policy alternative fuel vehicles will make up 75% of all new vehicles purchased and alternative fuel will be utilized as mandated in Executive Order (EO) 13423. Natural gas vehicles are cleaner burning than gasoline and diesel fueled vehicles and produces 80% fewer ozone forming emissions.

The storage and distribution of CNG must be properly managed to avoid impacts to the environment. Proper filling procedures are listed on the side of the quick-fill CNG dispenser and must be followed by all personnel using the equipment to fill their vehicles. Any personnel filling a CNG government vehicle at MCAS Miramar may be trained by watching a short video available through the dispatch office in Building 6317.

### 3.2 Operational Controls:

The following procedures apply:

1. Ensure that MSDSs (Material Data Safety Sheets) for CNG are available and current.
2. Ensure training is available for personnel required to dispense CNG into a vehicle. Training includes watching a short video available through the dispatch office in Building 6317 on the use of the CNG dispenser and associated safety equipment.
3. Ensure that personnel retain the training identification (ID) number obtained after watching the training video for future use. The training ID is associated with each user's CNG dispenser access card.
4. Keep serviceable fire extinguishers nearby in known locations.
5. Inspect CNG dispensing equipment annually per manufacturer's recommendations. Inspection records will be maintained and available for review.
6. Know the locations of the two red emergency shut-off buttons at the CNG dispensing location.
7. Ensure the following dispensing instructions, posted at the rapid-fill CNG dispenser, are legible and followed by all personnel using the facility.
  - a. Connect nozzle to vehicle with main valve in position 1.
  - b. Turn dispenser valve at nozzle to fill.
  - c. Fill vehicle until gas flow stops.
  - d. Turn main valve to position 2.
  - e. Fill vehicle until gas flow stops.
  - f. Turn main valve to position 3.
  - g. Fill vehicle until gas flow stops.
  - h. Return main valve to position 1.
  - i. Turn dispensing valve at nozzle to vent position.
  - j. Disconnect nozzle from vehicle.
  - k. Return nozzle to dispenser.

8. Report significant releases of CNG, such as a dispensing hose rupture, to the MCAS Miramar Fire Department (FD) immediately. The FD will respond, mitigate the situation, and report the incident to the Environmental Management Department (EMD).
9. Ensure users of the CNG dispensing system know what to do in case of an emergency as explained in the training video.
10. If there are any specific situations or other concerns not addressed by this procedure, contact MCAS Miramar EMD.

### **3.3 Documentation and Record Keeping:**

The following records must be maintained for the management of the CNG facility:

1. MSDS for CNG.
2. Annual Inspection Records for CNG dispensing equipment (kept by the Hazardous Waste Coordinator (HWC)).

### **3.4 Training:**

All affected personnel must be trained in this SOP and the following:

1. Watch a short training video prior to dispensing CNG into a CNG government vehicle.
2. Know the locations of fire extinguishers.
3. Know the locations of the red emergency shut-off switches.
4. Know the emergency procedures (what to do, who to call, etc.).

### **3.5 Emergency Preparedness and Response Procedures:**

In the event of an emergency (e.g., fire, earthquake, etc.) contact the MCAS Miramar FD and evacuate all adjacent buildings according to installation protocols. Refer to Marine Corps Order (MCO) P5090.2A, Subject: Oil/Hazardous Substance Spills/Spill Prevention Containment Countermeasures (OHSS/SPCC) for MCAS Miramar.

### **3.6 Inspection and Corrective Action:**

The Environmental Compliance Coordinator (ECC) shall designate personnel to perform inspections. The ECC shall ensure deficiencies noted during the inspections are corrected immediately. Actions taken to correct each

deficiency shall be recorded on the inspection sheet.

Compressed Natural Gas – Inspection Checklist	
Date:	Time:
Installation:	Work Center:
Inspector's Name:	Signature:

Inspection Items	Yes	No	Comments
1. Is the MSDS for CNG available and current? <i>(29 CFR 1910)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
2. Are inspection records maintained and available for inspection? <i>(MCO P5090.2A 9104.1(k)(5))</i>	<input type="checkbox"/>	<input type="checkbox"/>	
3. Do users of the system know where the two red emergency shut-off switches are located? <i>(8 CCR s 528)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
4. Do users of the system know what to do in case of an emergency? <i>(8 CCR s 528)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
5. Is compressed natural gas equipment inspected annually? <i>(8 CCR s 528)</i>	<input type="checkbox"/>	<input type="checkbox"/>	
6. Do users of the system follow the instructions posted on the dispenser unit? <i>(8 CCR s 528)</i>	<input type="checkbox"/>	<input type="checkbox"/>	

**ADDITIONAL COMMENTS:**

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**CORRECTIVE ACTION TAKEN:**

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**Environmental Compliance Coordinator**

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_