



Clean Energy[®]

North America's leader in clean transportation

*Facility Modifications Overview
for
Granite State Clean Cities Coalition*

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Wally Dubno

Sales Manager- Facility Modification Services

Office: 949-437-1327

Wally.dubno@cleanenergyfuels.com

Facility Modifications

What we provide...

Resources: Recommendations to bring a facility fully compliant with applicable federal, state & local codes & regulations

Services: Full-service design, engineering & construction

First Step: Facility Type

Minor vs. Major Repair Facilities

- Minor
 - Oil & tire changes only
 - No specific codes to meet
- Major
 - Engine work, fuel system work, overhaul, repairs

Facility Modification Myths

Common things I hear or am asked about...

- It will cost a fortune
- LNG doesn't make sense due to required facility mods
- Can I park indoors for only XX hour(s)?
- Any exemptions for 1 or 2 vehicles?
- Can we work on the vehicles outside?

What is involved with a Facility Mod?

Several things we look at in a facility:

- Detection- Methane detectors installed throughout the service area
- Dilution- Once a leak is detected, bring in fresh air
- Notification- Lights, sirens notify personnel a leak has been detected
- Evacuation- Both the air and personnel!
- Wildcard- Heating systems, costs can vary considerably

Facility Modifications – Full Facility

Classified Zones & Removal of Appliances

Designated classified zones:

- CNG: 18" on underside of ceiling,
- LNG: 18" on underside of ceiling + 18" above finished floor surfaces
- No open flames or surface temperatures greater than 750 °F

Monitoring

- Methane detection (monitoring)
- Alarm & notify (audible & visual)

If a Leak occurs....

Master Control System is in charge!

- Methane detection is connected to the system
- Turn on explosion proof exhaust fans - ventilation
- Open bay doors – fresh air
- Lights & sirens activate – personnel safety
- Certain circuit breakers are tripped – stop hot works
- Heaters are deactivated
- Fire Authorities notified - optional

Facility Modification- Process

Step 1: Facility Assessment / Site Details

- Electrical system capacity, heating system design, roof & wall construction, mechanical exhaust & supply for ventilation, preliminary design drawings, value engineering

Step 2: Engineering Design

- Develop detailed construction documents for electrical, mechanical, fire safety
- Complete permitting through Local Jurisdiction

Step 3: Construction

- Construction Administration
- Experienced Supervisors and Craftsmen
- Pre-qualified Subcontractors
- Training

How do we assist you

Provide accurate information to our customers

- Code compliance
- Cost estimates
- Alternative solutions



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Thank you!

*Facility Modification
Services for
Alternative Fuel Vehicles*

Wally Dubno

O: (949) 437-1327

C: (949) 554-9840

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