



CITY OF TORRANCE

DEPARTMENT OF
GENERAL SERVICES

SHERYL BALLEW
DIRECTOR

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Re: Contract ML 14054B City of Torrance Summary of Results & Conclusions:

The Fleet Services Garage ventilation and lack of gas detection systems did not meet the regulations set forth in California Fire Code Section 2211.7 for indoor repair of CNG vehicles, posing safety issues as workers performed maintenance functions outside of the building and by outsourcing more significant work which was both costly and inefficient. The CNG garage modifications upgrade and retrofit project of the City of Torrance Fleet Services Garage Facility project (Contract ML 14054B) enables indoor repairs and maintenance of the compressed natural gas (CNG)-fueled, heavy-duty vehicles.

The project also supports the City of Torrance's expanding fleet of alternative-fueled vehicles. Today, the City of Torrance fleet includes a total of 12 CNG vehicles (i.e. - trash trucks, street sweepers, and sewer trucks), with continued expansion underway for a total of 36 CNG vehicles expected to be added to the fleet within the next decade. This project ensures that the Garage operates and is maintained to meet Federal, State, and local codes.

The scope of work included the following:

- Planning, designing, engineering, as built drawings, specifications, permitting, equipment, fabrication, installation, construction and operation/maintenance of the complete system for upgraded CNG maintenance bays
- Regulatory requirements for all associated design, engineering and construction work
- Engineering and design services to produce required plans and specifications
- Approval through plan check process and regulatory agencies
- Construction of 3 upgraded maintenance bays
- Fire wall and pass through doors as required
- Explosion proof emergency battery pack lighting fixtures
- Gas detection and alarm systems with battery backup

- Installation of new ventilations system(s) with sufficient explosion proof air supply and exhaust fans to accomplish a minimum of 6 air changes per hour on activation of gas detection systems
- Modification of Interior and exterior roofing and skylights as needed
- Retrofit roll up doors (1 per bay). Doors will open automatically upon gas detection
- Electrical and mechanical appliances for suitability for use under the retrofitted facility
- Structural, electrical and mechanical systems, accessories and other support equipment for a complete and useable product

Operational:

- Building operations and vehicle maintenance continued during the design and renovation period
- Compressed air and lubrication systems remained in service during regular business hours. Temporary systems leak free
- Utility shutdowns after regular business hours

The City of Torrance reached out to the public notifying them of the clean energy/clean air the project would bring to the City, at the City Yard Open house in June 2016. Flyers were handed out, business cards provided, and discussions of the project benefits on safety were addressed.

The contract for the project was awarded by the City Council of the City of Torrance on July 19, 2016.

CNG Fleet Training of Supervisors and staff took place on February 28, 2017

Project Date of Acceptance: May 16, 2017

Installation, Operations & Maintenance Manuals as well as Basic Operator's Manual has been provided to the City of Torrance Fleet Services by the Contractors

If you have any questions, you may reach me at NSchroeder@TorranceCA.gov.

Respectfully Submitted,



Nina Schroeder
Business Manager



COMPUTER GAS ALARM
EVACUATE BUILDING
CALL 911
Gas Warning Stroke Status
Green - System Normal
Yellow - Low Gas Alarm
Red - High Gas Alarm







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