



**FINAL REPORT
MSRC CONTRACT MS 11017
CNG FUELING STATION EXPANSION**

**Submitted by CR&R Incorporated
July 16, 2012**

**“Prepared for the Mobile Source Air Pollution
Review Committee (MSRC) under the AB 2766
Discretionary Fund Work Program.”**

11292 Western Ave.
P. O. Box 125
Stanton, CA 90680-2912

t: 800.826.9677
t: 714.826.9049
f: 714.890.6347

Disclaimer

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Acknowledgments

- The City of Orange’s Department of Planning for their cooperation in the approval of the fueling station’s plans and building permits.
- Dean Rufferidge , Senior Vice President of CR&R for initiating the project and obtaining construction estimates.
- William Skinner, project architect, who guided the project through permitting and construction.
- Cliff Ronnenberg, David Ronnenberg, owners of CR&R for their involvement in the CNG’s station’s layout and design.
- Matthew McKenzie and Cynthia Ravenstein of the MSRC staff for their diligence in bringing this project before the MSRC Committee for approval.

Project Description and Work Performed

This project involved expanding an existing CNG fueling station located at 7571 Lampson Avenue in Garden Grove, California, to add 23 single-hose time-fill posts to meet the fueling needs of CR&R’s rapidly expanding CNG fleet. The station’s fueling output was estimated at a minimum of 396,000 gallons per year. The station cost was estimated at a total of \$204,044 with the MSRC providing \$100,000 or less than 50% of the estimated \$214,000 total project cost.

In 2010 CR&R had previously applied for and was awarded \$200,000 for the CNG station construction in 2009 but due to problems with the overall MSRC solicitation the grant award was never made. CR&R incurred the full cost of the facility at more than \$400,000.

In 2010 CR&R was awarded, on a competitive basis, the solid waste franchise for the City of Orange. This contract award necessitated the purchase of new CNG vehicles to service the community. The addition of the City of Orange outstripped the Lampson station’s fueling capacity forcing CR&R to fuel at a distant commercial fueling station at great inconvenience and expense. Also CR&R had to augment its CNG fleet to service contracts on the Newport Coast and for the Costa Mesa Sanitary District.

Project Description and Work Performed

This station expansion was simple and straightforward. CR&R had anticipated the need to expand the station and built this prospect into the facility layout. Site improvements required a brick wall for screening the station from the adjacent boulevards, new curbing and landscaping additional lighting. In all about 420 linear feet of block wall was installed at a height of 7 feet. The other major components of the project included the fueling dispensers and the installation of the dispensers and the construction of the site improvements.

Construction was conducted between April and July 2011. The 23 single-hose time-fill posts began dispensing fuel in August of 2011.

Problems Encountered

The project was straightforward. The City of Garden Grove was cooperative regarding the permitting. Vocational, the time-fill post vendor, performed adequately, and the site improvements were made under the careful supervision of our project architect and supervisor, Bill Skinner.

Emission Benefits

The Lampson CNG station now fuels 51 front and side loaders per day, replacing older diesel vehicles that previously serviced the City of Orange, Newport Coast and the Costa Mesa Sanitary District. The specific emission reductions cannot be calculated because the majority of the trucks that have been replaced with CNG vehicles using the Lampson Fueling Station were not operated by CR&R and we have no access to their record of operations. Fuel use from the station over the past 12 months has been about 380,000 gallons compared to the estimated fuel usage of 393,000 gallons per year.

Photographs and Outreach

Attached is a photograph of the Lampson CNG Fueling Station showing the original 28 slow-fill posts with the additional 23 slow-fill posts shown in the upper portion of the photo.

Summary and Conclusions

CR&R's CNG fueling infrastructure continues to grow as the company and the cities we serve have adapted and embraced CNG over the diesel engine platform that characterized our company's transportation fleet a decade ago. CR&R is now fully familiar with siting, permitting and building CNG fueling stations as well as servicing its growing CNG fleet. Our growing CNG fueling infrastructure, aided by the MSRC grant, is making it possible for CR&R to continue supplant its diesel fleet with CNG fuel and trucks.

This project followed a quick implementation timeline that went very smoothly.



