

Final Report

Contract #MS11016

Perris CNG Fueling Station

CR&R Incorporated

1706 Goetz Road

Perris, CA 92570

(951) 657-7512

David E. Fahrion

June 3, 2015

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

Acknowledgements

The following companies and organizations assisted in the design, development and funding of the Perris CNG Fueling Station

- JR Miller & Associates – Architecture & Design
- Vocational Energy – Development, Permitting and Construction
- So Cal Gas – Compressed Natural Gas (CNG) Supplier
- City of Perris – Permitting
- Jet Electric – Electrical Installation
- Bank of the West – CR&R's Bank

“This report was submitted in fulfillment of contract MS11016 for the Perris CNG Fueling Station by CR&R Incorporated under partial sponsorship of the Mobile Source Air Pollution Committee (MSRC).” The work was completed in March of 2013.

Disclaimer

“The statement and conclusions in this report are those of the contractor and not necessarily those of the Mobile Source Air Pollution Review Committee (MSRC) or the South Coast Air Quality Management District (SCAQMD). The mention of commercial products, their sources or their uses in connection with material reported is not to be construed as either an actual or implied endorsement of such products.”

Project Description & Work Performed

The project encompassed the design; permitting and construction of a Compressed Natural Gas (CNG) Fueling Station located 1706 Goetz Road in Perris California. The facility is owned and operated by CR&R Incorporated. The facility was constructed to allow the company to transition from diesel fueled trucks to natural gas (CNG). The project was constructed based on the timeline listed below with the following budget.

Construction Timeline

Finalize contract with Vocational
Sign Contract and Authorize work
Approve Construction Drawings & Schedule
Obtain Building Permits
Commence Construction
Ongoing Station Construction
Complete Construction
So Cal Gas Connection
Commission Fueling Station
Starting CNG Truck Fueling

Date Completed

September – October 2012
October 2012
November 2012
November 2012
November 2012
November 2012 – January 2013
February 2013
February 2013
February 2013
March 2013

Cumulative Budget

<u>Contractor</u>	<u>Scope of Work</u>	<u>Complete</u>	<u>Amount</u>
Canyon Consulting	Surveying of Site	Yes	\$2,400.00
H&H Grading, Inc.	Grade Site Pad	Yes	\$12,974.00
Vocational Energy	Build CNG Fueling Station	Yes	\$1,148,017.00
Change Order #1	Electrical Installation	Yes	\$116,616.00
Change Order #2	Additional Bollards	Yes	<u>\$5,695.50</u>
Total			\$1,285,702.50

Data Collection an Analysis

The following data has been developed between the period of February 1, 2013 and December 31, 2014. During the data collection period, the facility was reliable and trouble free which allowed our trucks to fuel exclusively at the station and were not required to use an outside third party station.

- Number of vehicles fueled per day – 50 vehicles
- CNG consumption per day per station – approximately 2,250 diesel gallon equivalent (DGE)
- Number of days or hours per year that the station was inoperative – None
- Maximum capacity of the new fueling station – 493 SCFM or 212 DGE per hour
- Electricity required to power the CNG compression equipment on a daily basis – we cannot determine the exact cost because the fueling station as it is included in all of our electric load however we estimate that we saw a 200% increase in overall electrical cost (\$5,000 per month versus \$15,000 per month)
- Duty cycle of the current fleet – 10 to 11 hours per day per vehicle

Problems Encountered

- None

Emission Benefits

The project allowed CR&R to remove 50 diesel burning trucks using approximately 40 DGE per day of fuel from its waste collection fleet. CR&R replaced these diesel trucks with 50 new CNG powered waste collection trucks which utilized approximately 45 DGE per truck of CNG.

Photographs & Outreach

- CR&R to display a decal with the MSRC logo on the fueling station to acknowledge the funding provided for the project
- CR&R to make personnel available to speak with other companies considering applying for grant funds from the MSRC for these types of projects
- CR&R to acknowledge the MSRC funding during the Grand Opening for the Anaerobic Digestion project sometime in late 2015 or early 2016
- Photographs are included with the report

Summary and Conclusions

The project was a complete success and the construction was completed as required and the result has allowed CR&R to retire 50 diesel powered waste collection trucks and replace them with 50 CNG trucks. The station was completed and fueling started in March of 2013. Since the fueling station was constructed, the facility has not been down which would have required the company to fuel the trucks at an alternative fueling location.

June 3, 2015

Mr. Matt Mackenzie
MSRC Contracts Administration
South Coast Air Quality Management District
21865 Copley Drive
Diamond Bar, CA 91765

Re: MSRC Grant MS 11016 Invoice

Dear Mr. Mackenzie:

Please accept the Attached Final Report and authorize release of the retention in the amount of reimbursement of \$10,000 dollars to CR&R Incorporated.

Please feel free to call with any questions or comments.

Sincerely,

David E. Fahrion
President
Solid Waste Division