

Advanced Low Emission Heavy-Duty
Natural Gas Engines for Solid Waste
Collection Vehicle Operators Program



CONTRACT: ML09011

CITY OF SAN BERNARDINO

February 28, 2012

Prepared for:

The Mobile Source Air Pollution

Review Committee (MSRC)

Under the AB2766 Discretionary Fund Work Program

ACKNOWLEDGEMENTS

The City would like to acknowledge the following individuals and companies that have provided support or services over the past eleven months to make the completion of this project possible.

Charles E. McNeely, City Manager
Barbara Pachon, Director of Finance
Don Johnson, Fleet Manager

Fairview Ford Sales, Inc.

This report was submitted in the fulfillment of contract MLO9011 the “purchase of ten (10) heavy duty L.N.G fueled vehicles” by the City of San Bernardino under the partial sponsorship of the Mobil Source Air Pollution Reduction Review Committee (MSRC).

DISCLAIMER

“The statements 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 herein, is not to be construed as either an actual or implied endorsement of such products.”

Project Description & Work Performed

The purpose of this project was to replace ten (10) older diesel powered Refuse collection vehicles with alternative fuel models, which meets the needs of the City of San Bernardino and to reduce air pollution emissions within the South Coast Air Basin. The City leveraged AB2766 funds to obtain a MSRC grant which provided additional funding towards the added cost of purchasing clean-fuel models.

The City of San Bernardino purchased ten (10) Autocar refuse collection trucks equipped with dedicated natural gas (L.N.G) engines certified by the California Air Resources Board (CARB) at or below a Nox standard of 0.2 grams per brake horsepower-hour (g/bhp)

The City of San Bernardino purchased from Fairview Ford Sales, Inc. seven (7) side loader refuse collection vehicles, two (2) front loader refuse collection vehicles, and one (1) roll-off refuse collection vehicles. All of the above listed vehicles are equipped with certified L.N.G fueled engines. The vehicles were manufactured and delivered to the City and subsequently placed into service.

It is estimated that being operated normally in the course of refuse collection operations; the ten (10) new vehicles will significantly reduce emissions released.

The ten (10) surplus older diesel refuse collection vehicles were taken out of service as the ten (10) new L.N.G. fueled vehicles were placed in service. These older vehicles are BATC compliant and will go to auction.

Table of Contents

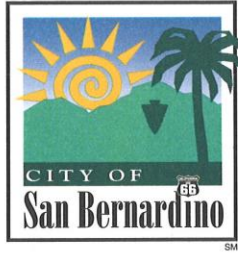
Title Page_____	Page 1
Acknowledgements _____	Page 2
Disclaimer _____	Page 2
Project Description & work performed _____	Page 3
Table of Contents_____	Page 4
Problems Encountered _____	Page 5
Emission Benefits_____	Page 5
Public Outreach _____	Page 6
Public Outreach Article_____	Page 7
Summary and Conclusions _____	Page 8
Recommendations _____	Page 8
Photos _____	Pages 9-13

Problems Encountered

- The additional maintenance requirements of the newer technology
- The reduced range/fuel mileage of the newer technology

Emission Benefits

For every diesel powered vehicle replaced by the purchase of a clean-fuel low emission model, it significantly reduces the amount of emissions released in the South Coast Basin which improves the quality of the air that we breathe.



**PUBLIC WORKS DEPARTMENT
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DON JOHNSON - FLEET DIVISION MANAGER**

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February 29, 2012

To: Rachel B. Valenzuela
South Coast Air Quality Management District / MSRC
From: Don Johnson
City of San Bernardino Fleet Division Manager
Ref: Contract # ML09011 Public Outreach Plan

The following has been done to inform the public and other city departments and personnel of our recent purchase of 10 LNG (liquefied natural gas) Solid waste collection vehicles. These will help reduce air pollution emissions within the South Coast Air Basin. The Public Outreach program is to help promote the acquisition of the MSRC funding for these solid waste collection vehicles.

1. The City's Mayor and Common Council Endorsing the application. (See attached Resolution)
2. An information piece submitted to the Sun Telegram newspaper citing the cooperation between the City of San Bernardino and the MSRC (Mobile Source Air Pollution Reduction Review Committee) in the co-funding of these clean fueled vehicles that will help reduce air pollution in the South Coast Air Basin. This is a Public Forum.
3. An information piece on the City's website about the acquisition of these clean fueled vehicles. (See attached)
4. An information piece ran on Channel 3, the City's public access bulletin board.
5. An article was submitted to the Government Fleet Magazine outlining the program.
6. An open forum and display of the vehicles at the local Elks lodge in San Bernardino was held in conjunction with So. Cal. Gas Company to promote Natural Gas Vehicles.

With the above media releases the Citizen's and Employees of the City of San Bernardino have been made aware of these important steps that the City of San Bernardino has taken in the reduction of air pollution in the South Coast Air Basin.

The City of San Bernardino's Fleet Division will continue to investigate means to reduce the air pollution in the South Coast Air Basin where our residents reside.


Don W. Johnson
Fleet Manager, City of San Bernardino

2-29-12
Date



Encl

• INTEGRATED WASTE AND RECYCLING • ENVIRONMENTAL PROJECTS • SEWER AND STREET MAINTENANCE • FLEET



City of San Bernardino's Fleet Management Division continues its efforts to help reduce the amount of air pollution within the South Coast Air Basin by having recently purchased 10 LNG (Liquid Natural Gas) refuse vehicles. These clean fueled vehicles will greatly reduce the emissions in comparison to those produced by the older diesel powered vehicles they have replaced. These vehicles were partially funded through monies from an M.S.R.C. (Mobile Source Air Pollution Review Committee) grant which provides funds to help pay the additional costs of these clean fuel models.

The City of San Bernardino has its new LNG/CNG fueling station operational. This fueling station was funded through various state and federal grants and the CNG portion is open to the public.

The City of San Bernardino's Public Works Fleet Management Division will continue to investigate means to reduce the air pollution in the South Coast Air Basin where our residents reside.

Summary and Conclusions

The project involved the replacement of ten (10) vehicles in the City's refuse collection fleet. Due to the age and general condition of the vehicles it was determined that their service life had been exceeded. Due to research it was discovered that a potential funding source was the MSRC, if the vehicles qualified and were purchased in low emissions alternative fuel models. A grant proposal was submitted. The City received an award in the form of a grant for the amount of \$250,000 and executed a contract on May 6, 2010 with the South Coast Air Quality Management District (AQMD) for partial funding of the purchase of ten (10) LNG fueled solid waste collection vehicles.

Seven (7) Residential side loader solid waste collection vehicles
Two (2) Commercial front loader solid waste collection vehicles
One (1) Commercial Roll-off solid waste collection vehicle

Recommendations

Based on the knowledge and experience gathered through the successful completion of this project, it is recommended that the City does the following.

- Continue working with the Fleet Management Division to find newer technology lower emissions vehicles for vehicle replacement.
- Continue training for all Fleet personnel on the safe servicing and repair of CNG/LNG vehicles.
- Running ongoing classes for operators of CNG/LNG on safe vehicle operation and fueling.









