



Clean Air Transportation

SUCCESS STORIES

SPECIALTY SOLID WASTE AND RECYCLING

Twenty-six Specialty Solid Waste and Recycling compressed natural gas (CNG) refuse trucks roll out daily to service the citizens of Sunnyvale, California. Signs on each read “Clean Air Vehicles... Better for the Environment” reinforcing the company philosophy and goal to be 100% CNG.

The American Lung Association and National Natural Gas Vehicle Coalition recognized Specialty Solid Waste and Recycling for their efforts in providing a clean, compressed natural gas (CNG) refuse fleet to service the citizens of Sunnyvale. Jerry Nabhan, Specialty’s Operations Officer, has been a valuable resource to many fleet operators interested in providing this service to their customers.



On an international level, France and Taiwan have sent delegations to see the Specialty Solid Waste and Recycling’s operation. A driver shared with the visiting delegates the benefits of natural gas and how he loves his truck. In June 2004, Paris authorities placed an order for 300 Cummins Westport natural gas engines to power their refuse and street cleaning fleet.

What’s next for Specialty? Due to their success, Volvo has asked them to test two of their new CNG engines in the Specialty fleet over the next couple of years.

WASTE MANAGEMENT

Waste Management is the state’s leading provider of solid waste and recycling services. The Company serves more than 2 million California households, operating 15 material recovery facilities, and has one of the nation’s largest heavy-duty fleets of natural gas trucks. The Company has received numerous recycling, air quality and conservation awards from environmental organizations and state and local agencies.

In 1995, Waste Management initiated one of the first pilot projects to determine if solid waste collection vehicles fueled by 100% natural gas could meet the demanding needs of the solid waste industry. The Palm Desert compressed natural gas (CNG) project was very successful, driver acceptance was excellent, and the major emission reductions was achieved. Since 1995, the company has continued to add to its fleet of CNG trucks, constructed 13 new fueling stations, and introduced 120 liquid natural gas (LNG) trucks into the fleet in El Cajon, California. The low emission natural gas vehicles are an essential element of the Waste Management goal to run the cleanest heavy-duty fleet in the solid waste and recycling industry.



California collection fleet: 2,800 trucks
Natural gas (CNG and LNG): 462 trucks
Natural gas fueling sites: 13 (Throughout California)

HARRIS RANCH

In a public/private partnership, Harris Ranch, one of the west's largest beef and food agribusinesses, with over 100,000 beef cattle and various crop operations, replaced 22 aging, diesel-powered trucks with trucks powered by liquefied natural gas (LNG) starting in 1999. The new trucks reduce over 20 tons of particulate matter and NOx emissions per year. The trucks are powered by Freightliner chassis and the Caterpillar C-12 Dual-Fuel engine. They operate 85% LNG and 15% diesel ratio with a 450 mile range.

"We're leading the herd in the next generation of heavy-duty trucking," said Harris Ranch Chairman/CEO John Harris. "Tomorrow's trucking needs are being met with alternative fuels. This is a technology that, as time goes on; it definitely has a good payback for us."

Pacific Gas and Electric Company, a major advocate of alternative fuels and environmental stewardship, was a key player in facilitating this project from start to finish, including working with the San Joaquin Valley Clean Cities Coalition and the Interstate Clean Transportation Corridor (ICTC) to obtain federal, state and local funding.

Harris' liquefied natural gas fueling station was the first of three LNG fueling stations to begin operating in the San Joaquin Valley.



Harris Ranch has contributed \$1.1 million towards the new fleet and fueling station's \$2 million cost, with the remainder funded through a variety of public and private sources. The San Joaquin Valley Unified Air Pollution Control District has funded the cost of converting the new trucks; San Joaquin Valley Clean Cities' coalition (through the California Energy Commission) has contributed \$400,000 toward the cost of this new LNG fueling station.

The Interstate Clean Transportation Corridor (ICTC) has helped build the infrastructure that will support an economically-efficient, environmentally-friendly movement of people and goods across the United States utilizing alternative fuels. Phase one, a triangular corridor linking Los Angeles, the Bay Area, Las Vegas and Salt Lake City, is an interlocking series of LNG and CNG refueling stations and facilities along the I-80, I-5, I-10, CA 99 and the I-15 highways. The Harris Ranch station was the first LNG station on the ICTC in the San Joaquin Valley.

PACIFIC GAS AND ELECTRIC COMPANY

Pacific Gas and Electric Company (PG&E), a local gas and electric distribution company in Northern and Central California, started experimenting with alternative fuel vehicles in the early 1970s. In 1988, the company formally started its Clean Air Transportation program and currently has more than 800 natural gas vehicles in its fleet.

Of these natural gas vehicles (NGVs), 29 are PG&E designed, John Deere powered, Freightliner FL70 heavy-duty trucks (33,000 GVW). PG&E also has 11 additional trucks currently under construction. These trucks are used for natural gas line construction and maintenance.

For its innovative design of these trucks, PG&E received the Bay Area Chapter of the American Lung Association's Clean Air ENVY award recognizing the breakthrough design of the vehicle. "Undeterred by a lack of technology in the marketplace to create such a vehicle, Pacific Gas and Electric Company developed the prototype on its own," stated



Linda Civitello-Joy of the American Lung Association's Bay Area Chapter.

"For the past several decades, Pacific Gas and Electric Company has been a national leader in exploring and promoting the use of clean air transportation," said Bob Harris, vice president of environmental affairs. "The installment of these new vehicles further demonstrates the company's commitment to a clean environment.

We're very proud of these new environmentally superior vehicles, which serve as prime examples of how natural gas is a viable alternative to all conventionally fueled vehicles."

"Everyone is responsible for air pollution and everyone must do their share to reduce emissions," said Jack Broadbent, the United States Environmental Protection

Agency's air division director for the Pacific Southwest region. "PG&E is a good example of how companies can do their share to reduce air pollution."



**Pacific Gas and Electric Company®
Clean Air Transportation**

