Alternative Motor Vehicle Fuels in Louisiana

September 2003

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Executive Summary

The three major driving forces behind the usage of alternative fuels for vehicles are:

1) There is a desire to reduce our reliance on foreign sources of oil: Of the 15.17 million barrels/day (MMB/D) of crude refined in the US during 2000, the US imported 2.41 MMB/D from Arab OPEC, 2.13 MMB/D from non-Arab OPEC, and 4.52 MMB/D from non-OPEC countries. The September 11, 2001, terrorist attack accentuated the vulnerability of our vital oil supplies.

2) It can be a means of reducing motor vehicle pollution problems: Gasoline is a very efficient and convenient way to store energy. One pound contains 19,000 BTU, and simply pours out of a nozzle as a liquid at normal temperatures and pressure. The problem is, when gasoline is combusted with air, it produces carbon dioxide and a myriad of pollutants, such as oxides of nitrogen and carbon monoxide. The oxides of nitrogen, when exposed to sunlight, produce smog, a major health hazard.

3) There is a limited supply of current fuel sources: Although we keep discovering new oil and gas fields, supplies will eventually run out. Time estimates vary greatly, but inevitably that day will come.

The two major stumbling blocks to conversion to alternative fuels are:

1) There is a lack of a marketing infrastructure and fueling convenience: No other fuel has the distribution network of gasoline. Electricity and natural gas are readily available, but battery technology limits the use of electricity, and natural gas must be compressed or liquefied to be useful in vehicles.

2) The economics for most new fuels is unattractive: Alternative fuels, and alternative fuel vehicles (AFVs), are not cost competitive with gasoline at the present time.

Alternative fuel and AFVs have the potential to become less expensive as technology matures. Gasoline will become more expensive as crude oil supplies dwindle. At some point, the price curves will meet and the economics of alternative fuels will be competitive. Until then, federal and state incentives are being used to help spur the development and distribution of alternative fuels.

Federal and state legislative deadlines mandating the increased use of alternative fuels have spurred some Louisiana vehicle fleet owners to begin converting a portion of their fleets. Most new conversions are to compressed natural gas (CNG), but the majority of AFVs now on the road are fueled by liquefied petroleum gas (LPG), commonly known as propane. However, Louisiana Department of Revenue and Taxation records show a steady decrease in the number of these vehicles over the past few years.

Ecogas of Louisiana began the conversion of a portion of the state government fleet to CNG in March 1994 in accordance with their contract with the state. The contract was terminated in December 1995 after 184 conversions had been completed due to high costs and insufficient refueling infrastructure. Some city and parish governmental entities have converted a few vehicles in their fleets. For example, the Baton Rouge Department of Public Works has 61 CNG vehicles operating, with plans for more in the future.

Currently, there are four unrestricted public access CNG refueling stations and a few others willing to provide limited access with prior coordination. Public demand for personal natural gas vehicles (NGVs) remains virtually nonexistent due to the high cost of conversion and the lack of adequate refueling infrastructure participation.

There are several federal programs designed to increase the use of alternative fuels. One such program is the Department of Energy's (DOE) Clean Cities Program. Stakeholders of the Clean City organizations are motivated by voluntary measures, not by government mandates. The stakeholders, whether fuel providers, vehicle manufacturers, fleet managers, or air quality representatives, work together as a coalition to further the development of the AFV market.

State government offers tax incentives to encourage increased use of AFVs. Act 1060 of 1991 provides for a 20% tax credit for AFV purchases, certain conversion costs, and fuel dispensing facilities. Natural gas and LPG fuels also enjoy a lower state and federal tax rate compared to gasoline.

Much progress has been achieved in hybrid electric vehicle (HEV) technology, and the number of HEVs is beginning to increase. As battery performance and mechanical drive components continue to improve, and costs are reduced, we can expect to see more of these vehicles in use in Louisiana. Currently, only Honda and Toyota have hybrid cars that can be purchased, but models from several other manufacturers are in the works for 2004 and beyond.

Introduction

Alternative motor vehicle fuels are defined in their broadest sense as all fuels other than pure gasoline and diesel that propel vehicles. The definition includes, but is not limited to, alcohols (ethanol and methanol), natural gas (CNG and LNG), propane, biodiesel, hydrogen, and electricity. Under Louisiana law Revised Statutes 47:38 and 287.756 (included in appendix B) alternative fuel means any fuel that produces lower emission of NOx (Oxides of Nitrogen), VOC (Volatile Organic Compounds), CO (Carbon Monoxide), or particulates or any combination thereof. Generally AFVs are more expensive because of the modifications that need to be made to the engines and the expensive storage requirements for say CNG, LNG, and LPG. However, bi-fuel vehicles, those that can run on regular gasoline or E85 (a mixture of 85% ethanol and 15% Gasoline), do not require a great investment. Different materials used in the construction of the fuel system and a sensor that detects the percentage of ethanol in the fuel and makes the necessary engine adjustments are all that is required. The fuels themselves are in the same price range as normal fuels or a little higher. The health cost due to the pollution created by inefficient use of normal fuels is not figured in to the cost of such fuels. If one could somehow figure in the health cost and the typical fuel saving one can see the benefits to society as a whole, but few individuals think in those terms. A more efficient automobile is less vulnerable to fuel price fluctuations because the cost of fuel plays a smaller part in the overall expenses of operating a vehicle, expenses such as gas, oil, insurance, maintenance, taxes, interest, and depreciation (16 of the 36.5 cents in 2002).

Why Use Alternative Fuels?

The motivation for the development of alternative fuels for automobiles has not changed. Concerns about the environment and security of the fuel sources are as valid today as they were in years past, especially after September 11. President Nixon launched Project Independence in 1973 within a month of the first "energy crisis." The energy crisis was triggered by the oil embargo against the United States and Western Europe in October 1973. The goal of Project Independence was energy self-sufficiency of the U.S. by 1980. President Carter created the Department of Energy after president Ford set the stage in 1974 with the Energy Reorganization Act. After the fall of the Shah of Iran in 1979, the second energy crisis hit within a decade of the first. President Ford also established the Strategic Petroleum Reserve (SPR) in 1975 for Oil storage of up to one billion barrels of crude, and construction began in 1977. The reserves stored in salt domes along the gulf of Mexico hold 700 million barrels.

Transportation accounts for nearly two thirds of all the oil consumption in the United States and is almost 97% dependent on petroleum. Forty one percent of United States crude oil demand is imported. This number is expected to increase to 64% by 2020 according to Stuart Eizenstat, former domestic policy adviser to President Carter.

Federal Alternative Fuel Initiatives

Since the 1970s, national clean air and energy security issues have led to the enactment of federal laws and regulations. Alternative fuels did not become a part of these goals until the late 1980s. The aim of several federal actions during the late 1980s and early 1990s has been to

clean the air, reduce energy consumption, cut U.S. dependence on foreign oil by promoting voluntary private sector efforts, implement alternative fuel use requirements and regulate industry. Much of this legislation followed innovative state policies that addressed the same air quality and energy security objectives. The most notable federal efforts include the 1992 Energy Policy Act (EPACT), implemented by DOE, and the 1990 Clean Air Act Amendments (CAAA), administered by the U.S. Environmental Protection Agency (EPA). Other legislation, Presidential executive orders, the Clean Cities program, and federal grants and funding also have stimulated the use of alternative fuel and AFVs.

The Clean Air Act Amendments of 1990 (CAAA) [1, 4, 8]

The intent of the alternative fuel provisions of the CAAA is to reduce air pollution. Since conventional gasoline produces more air pollutants than clean alternative fuels, the CAAA require the use of these fuels on certain vehicles according to a strict schedule. Vehicles covered and the compliance schedule are as follows:

a. Vehicles covered include public and private fleets of 10 or more light-duty vehicles (up to 8,500 lbs.) and heavy-duty vehicles (up to 26,000 lbs.) capable of central refueling when based in an ozone non-attainment area that is classified under the Act as Serious, Severe, or Extreme based on data for calendar years 1987, 1988, and 1989; and carbon monoxide (CO) non-attainment areas with a design value at or above 16.0 parts per million (ppm) based on data from 1988 and 1989. In addition, the areas must have had a 1980 population of 250,000 or more.

b. The original compliance schedule required that fleet operators must begin purchasing clean-fuel vehicles in model year 1998 when replacing existing vehicles with new ones. Implementation was delayed one year by EPA. The minimum purchase requirements of passenger cars and light-duty trucks was 30% in 1999, 50% in 2000, and 70% in 2001. For heavy-duty trucks it is 50% for all three years.

There are no CO non-attainment areas in Louisiana. Among the 22 cities in the U.S. that were classified as "serious," or worse, ozone non-attainment areas under the CAAA, Baton Rouge was the only Louisiana city listed, which includes the surrounding parishes of East Baton Rouge, West Baton Rouge, Livingston, Iberville, and Ascension.

The Louisiana Department of Environmental Quality (DEQ) is responsible for the implementation of the CAAA at the state level. In 1994, DEQ submitted a plan to EPA to implement a Clean Fuel Fleet program in the ozone non-attainment area and set up a vehicle inspection/maintenance program for the five-parish area. However, a legislative resolution prohibited use of state funds for the inspection/maintenance program that was proposed. In 1998, EPA granted a one-year extension to begin the Clean Fuel Fleet program, and DEQ requested to opt out of the program based on significant reductions achieved in pollutant emissions from static stationary sources. In 1999, DEQ successfully secured an increase in the annual safety inspection fee to pay for a less elaborate, but expanded, emission testing program in the five-parish area. EPA approved the opt out request, contingent upon successful operation of the expanded emission testing procedure that was initiated in January 2000.

For additional information, news, developments, and documents related to the Clean Air Act Amendments, visit the EPA home page on the internet at http://www.epa.gov or the DEQ home page at http://www.deq.state.la.us.

Alternative Fuel Provisions of the Energy Policy Act of 1992 (EPACT) [1, 5, 6]

The intent of EPACT is to lessen dependence on foreign oil as the source of the nation's transportation fuels. To displace foreign oil, certain provisions of EPACT, like the CAAA, mandate the use of alternative fuels in vehicles covered by the law. Fleet requirements affect those who own or control at least 50 vehicles in the U.S. and fleets of at least 20 vehicles that are centrally fueled or capable of being centrally fueled within a metropolitan area of 250,000 or more (based on the 1980 census). Three metropolitan areas in Louisiana fall within EPACT criteria: Baton Rouge, New Orleans, and Shreveport-Bossier City. The vehicles covered and the compliance schedule are as follows:

A. Vehicles covered include federal fleets; state and local government fleets; fleets operated by alternative fuels producers, distributors, and marketers (including gas and electric utilities); and some private fleets.

B. Separate compliance schedules apply for fleets operated by the federal and state governments and fuel providers. There are potential requirements for private companies and municipal governments if a prescribed number of AFVs are not voluntarily included in their fleets by certain dates. The percentage requirements and effective model year dates for covered Louisiana fleets are shown in Table 1, which includes changes by Presidential Executive Order 12844 and DOE adjustments.

Table 1. Percentage of New Fleet Light Duty Purchases That Must Be AFVs				
Year	**Federal Government**	**State Government**	**Fuel Providers**	**Private/ Municipal****
1993	7,500*	-	-	-
1994	11,250*	-	-	-
1995	15,000*	-	-	-
1996	25	-	-	-
1997	33	10	30	-
1998	50	15	50	-
1999	75	25	70	-
2000	75	50	90	-
2001	75	75	90	-
2002	75	75	90	20
2003	75	75	90	40
2004	75	75	90	60
2005	75	75	90	70
2006	75	75	90	70

* Number of vehicles (if vehicles are available from auto companies)
** Dependent upon DOE final rulemaking in 2000
Source: References 5, 6

C. Businesses or individuals can get a federal tax deduction for purchasing new AFVs ranging up to $2,000 for automobiles and trucks that weight up to 10,000 lbs., and up to $50,000 for trucks over 26,000 lbs. Tax deductions for businesses installing fueling stations are allowed up to a $100,000 ceiling. The tax deductions began June 30, 1993, and start to phase out in 2001, ending in 2004.

If a fleet is covered under both the CAAA and EPACT, it is required to conform to both laws. If covered, the percentages apply *only to the new vehicles purchased during that year*. Converted vehicles can be used to meet percentage requirements.

The information presented above on the CAAA and EPACT is only a portion of the provisions contained in the two Acts. The full text of the original legislation should be consulted as the final authority. To obtain a full copy of rules related to EPACT, contact any of the following for details:

Energy Efficiency and Renewable Energy Clearinghouse (EREC), 1-800-DOE-EREC

Internet: http://www.ott.doe.gov/office/rules.html
Internet Electronic Mail: energyinfo@delphi.com
Fax: 1-703-893-0400

For appeals of interpretive rulings and denials of exemptions:
Office of Hearings and Appeals
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

For all other submissions:
Alternative Fuel Transportation Program
Office of Energy Efficiency and Renewable Energy, EE-33
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Information may also be obtained from:
National Alternative Fuels Hotline and Data Center
1-800-423-1DOE
Internet: http://www.afdc.doe.gov

DOE "Clean Cities" Program [1, 9, 10]

The *Clean Cities* program was established by the DOE to facilitate voluntary cooperation among metropolitan (city) governmental and private entities in promoting AFVs in significant quantities, along with essential refueling and maintenance facilities, to insure an economically self-sustaining AFV infrastructure. DOE will assist in adapting a metropolitan area's existing AFV programs and local objectives into an implementation plan and, upon completion, will enter into a Memorandum of Understanding (MOU) with area entities to conduct a Clean Cities program. More information is available on the Clean Cities website at www.ccities.doe.gov, or by calling 1-800-CCITIES.

The DOE regional Clean Cities contact is:
Mr. Dan Deaton
U.S. Department of Energy
Denver Regional Support Office
Dallas Duty Station
7937 Cross Plains Drive
Plano, TX 75025
Phone: 972-491-7276
Fax: 972-491-7292
Email: dan.deaton@ee.doe.gov

The DNR contact is:

Mr. Darrell Winters
La. Dept. of Natural Resources
Technology Assessment Division
P.O. Box 44156
Baton Rouge, LA 70804-4156
Phone: 225-342-4593
Fax: 225-242-3728
Email: darrellw@dnr.state.la.us

While the program is available to any size city, the DOE is soliciting interest in the program from those metropolitan areas affected by EPACT and has invited Baton Rouge, New Orleans, and Shreveport-Bossier City to participate. New Orleans and Shreveport-Bossier City are currently working on the development of their plans. Shreveport-Bossier City, New Orleans and the Greater Baton Rouge Clean Cities Coalition Coordinator also utilize the Clean Cities Program as a voluntary measure for emission reductions. Baton Rouge is in the process of being reclassified from a serious to a severe non-attainment area for ozone under CAAA.

The Greater Baton Rouge Clean Cities Coalition Coordinator is:
Ms. Tammy Morgan
805 St. Louis Street, #22
Baton Rouge, LA 70801
Phone: 225-389-8560
Email: tlmorgan@ci.baton-rouge.la.us

Other Federal Activities Affecting Alt. Fuel and AFV Policies

Although EPACT and CAAA have had the greatest effect on state alternative fuel policies, other federal activities also have influenced state actions. These include the Alternative Motor Fuels Act of 1988, the 1991 Intermodal Surface Transportation Efficiency Act (ISTEA) and the 1998 Transportation Equity Act for the 21st Century (TEA-21), research and development activities, and Executive Orders 12759, 13031, and 13123.

Alternative Motor Fuels Act of 1988 (AMFA) [1, 18]

This act was the first national legislation to promote the purchase and use of alternative fuels and AFVs. The act amended Title III of the existing Energy Policy and Conservation Act (42 USC 6374) and encouraged Federal government acquisition of the maximum number of OEM passenger automobiles and light duty trucks as practical. The act directed DOE to evaluate performance in cold weather and high altitude of fuel economy, safety, emissions, and operating and maintenance costs in comparison to standard autos and light trucks. DOE was also directed to study the use of alcohol and natural gas in heavy duty trucks. The third program called for DOE to assist state and local agencies in testing urban transit buses capable of operating on alcohol and natural gas in comparison to diesel powered buses.

These comprehensive evaluation programs were initiated in 1990. Data are still being obtained and evaluated by the National Renewable Energy Laboratory, and results are entered into the

Alternative Fuels Data Center and are available on the internet at http://www.afdc.doe.gov or through the National Alternative Fuels Hotline at 1-800-423-1DOE.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) [1]

This act (P.L. 102-240) represented the first major change in the relationship involving federal funding of state transportation programs since the authorization of the interstate highway system in 1956. ISTEA gave states the flexibility to disburse federal transportation funds by allowing states to tailor their transportation programs to meet specific needs. An example is the Congestion Mitigation and Air Quality (CMAQ) Improvement program, where states may choose to promote reduced conventional automobile use through mass transit, bicycle lanes, car-pools and ride-sharing, and alternative fuel vehicles. ISTEA expired September 30, 1997, and was replaced by the Transportation Equity Act for the 21st Century June 9, 1998.

Transportation Equity Act for the 21st Century (TEA-21) [19]

This act (P.L. 105-178) builds on initiatives established in ISTEA. TEA-21, a six-year program, continues the CMAQ program and includes the assurance of a guaranteed level of Federal funds for surface transportation through fiscal year (FY) 2003. Eligible activities include transit improvements, travel demand management strategies, traffic flow improvements, and public fleet conversions to cleaner fuels, among others. Funding is available for areas that do not meet the National Ambient Air Quality Standards (non-attainment areas), as well as former non-attainment areas that are now in compliance (maintenance areas). Funds are distributed to states based on a formula that considers an area's population by county (parish) and the severity of its air quality problems within the non-attainment or maintenance area. New provisions also allow the funding of public/private partnerships as well as nonprofit entities.

Research and Development [1]

In an effort to make AFVs available to the public at a price comparable to gasoline powered vehicles, three vehicle manufacturers joined forces. Ford, Chrysler (now DaimlerChrysler), and General Motors began a cooperative precompetitive research agreement in 1988. In 1992 these manufacturers established the United States Council for Automotive Research (USCAR). USCAR's goals include advancing U.S. manufacturing, developing technologies to increase the efficiency of standard vehicle designs, and developing a new class of vehicle that is up to three times more fuel efficient than current models. The federal government joined this group in 1993, and the consortium became known as the Partnership for a New Generation of Vehicles (PNGV). Basic goals remain focused on decreasing dependence on foreign energy sources, the environmental benefits of lowering harmful emissions, and boosting the United States' economic competitiveness.

Executive Orders [1]

Executive Order 12759 was signed by President Bush on April 19, 1991, to strengthen the AMFA and the CAAA. The order required federal agencies with more than 300 vehicles to reduce gasoline and diesel consumption by at least 10 percent by 1995 (compared to 1991 fuel consumption). Use of alternative fuels to meet this goal was encouraged, and the order required federal agencies to purchase the maximum number of alternative fuel vehicles possible, when practical.

Executive Order 13031 was signed by President Clinton December 13, 1996, and superseded an earlier order (12844). It requires that 33 percent of the vehicles acquired by federal agencies during 1997 be AFVs. This requirement increases to 50 percent in 1998 and 75 percent in 1999 and subsequent years. The order specifies that DOE will no longer request, or require, specific appropriations to fund the incremental costs of AFVs for other agencies; agencies are directed to use "existing and requested funds, but shall not be exempt from the requirements of the Act, or this order, due to limited appropriations."

Executive Order 13123 was signed by President Clinton June 3, 1999, to encourage effective energy management in the Federal government and to build on work begun under EPACT and previous Executive Orders. Three earlier executive orders were revoked (12902 of 1994, 12759 above, and 12845 of 1993). Although primarily applicable to fixed Federal buildings and facilities, guidelines for mobile equipment are included for use of alternative or renewable-based fuels. Two specific goals for Federal agencies include:

- Each agency shall strive to expand the use of renewable energy within its facilities and in its activities by implementing renewable energy projects and by purchasing electricity from renewable energy sources. The Federal government shall strive to install 2,000 solar energy systems at Federal facilities by the end of 2000, and 20,000 systems by 2010.
- Each agency shall reduce the use of petroleum within its facilities by switching to a less greenhouse gas-intensive, non-petroleum energy source such as natural gas or renewable energy sources by eliminating unnecessary fuel use, or by other appropriate means.

The National Alternative Fuels Hotline [5]

The Alternative Fuels Data Center provides a comprehensive source of information on alternative fuels. The Center is operated by the National Renewable Energy Laboratory (NREL) at Golden, Colorado, with funding and direction from the DOE Office of Transportation Technologies (OTT). The Center collects operating information from vehicles in programs sponsored by the AMFA running on alternative fuels and makes the data available to the public. The Center offers an "800" telephone number to assist the general public and interested organizations in improving their understanding of alternative fuels. The Hotline number is **1-800-423-1363**, and operates from 9 a.m. to 6 p.m. Eastern Time. The Alternative Fuels Data Center maintains a web page at http://www.afdc.doe.gov with links to the hotline and a number of other information resources. The hotline can be contacted by e-mail at hotline@afdc.nrel.gov.

National Alternative Fuels Hotline for Transportation Technologies
9300 Lee Highway
Fairfax, Virginia 22031
Local Phone: 703-934-3069
Fax: 703-934-3183

Public Awareness

A major barrier to the general use of alternative fuels is the lack of public awareness. The federal incentive programs through tax deductions means very little to people who go to H&R Block to get their taxes done for $99.99. Although tax credits are probably the easiest to administer and enforce, they have their limitations. They do not apply to government agencies, nonprofits, and schools because these entities have no tax liabilities. Tax incentives also have limited value to low and moderate income families. The only point of contact with tax incentives for these people is in the showroom of the automobile manufacturers who need to point out the tax savings because the fuel efficient cars are more expensive to purchase. There is not an overall awareness of the problems of pollution, fuels security, and the way using less fuel and alternative fuels can help. In most large cities such as Los Angeles and Houston people are made aware everyday of the advantages of carpooling and high efficiency cars by the HOV (High Occupancy Vehicle) lane. Driving is less hectic in these lanes (less cutting in and out) and faster, but are only accessible to carpools, motorcycles, busses, ULEV (Ultra-Low-Emission Vehicles) and SULEV (Super-Ultra-Low-Emission Vehicles).

What are LEVs, ULEVs and SULEVs?

- A LEV is a vehicle that is certified to meet the "Low Emission Vehicle" standards that are set by the California Air Resources Board (CARB).
- An ULEV is a vehicle that is certified to meet the "Ultra-Low Emission Vehicle" standards that are set by CARB.
- A SULEV is a vehicle that is certified to meet the "Super Ultra-Low Emission Vehicle" standards that are set by CARB.

California LEV II Emission Standards for Passenger Cars and Light Duty Vehicles (vehicles less than 8500 lbs.) (grams/mile for 120,000 miles/11 years)					
Category	**NMOG**	**CO**	**NOx**	**PM**	**HCHO**
LEV	0.090	4.2	0.07	0.01	0.018
ULEV	0.055	2.1	0.07	0.01	0.011
SULEV	0.010	1.0	0.02	0.01	0.004
NMOG = non-methane organic gases					
CO = carbon monoxide					
NOx = nitrous oxides					
PM = particulate matter					
HCHO = formaldehyde					

The government did a wonderful thing introducing the handicapped parking areas with its well-recognized blue lines. Even zones marked with red and yellow are generally understood. How about introducing bright orange zones with signs that say “Alt Fuel Parking Only” for alternative fuel vehicles conveniently close to mall entrances, offices and parking garages? This type of

preferential treatment would encourage people to think of alternative fuels. An AFV license plate could also be issued to encourage awareness.

Government needs to focus on setting technical standards. They have done so with gasoline, distinguishing between leaded and unleaded fuels, so why not with electrical plugs, CNG and LPG connectors? Once such standards are in place electrical, CNG or LPG outlets could be provided in governmental and private industry parking lots to encourage the use of alternative fuels.

The expense of putting in electrical outlets during construction is minimal, as long as one knows what type to put in. The expense of putting in CNG or LPG connections is more expensive due to the cost of CNG compressors or LPG storage. Perhaps careful coordination with a local CNG fuel supplier could make that a more practical option. Low capacity compressors designed to slow fill a single car for residential use are coming on the market in the near future; estimated cost will be around $1000. Compressors to serve one or two cars are available now for about $6200. Slow fill, also known as time fill, is a system designed for low flow rates; filling up a vehicle tank takes time, perhaps overnight. Fast fill, on the other hand, is designed for higher flow rates and can fill a CNG tank in minutes.

Appendix D contains the State of Louisiana regulations regarding CNG storage and transportation. Because CNG is not considered a utility it has none of the rights that a public utility enjoys when routing through public and private lands. Perhaps the government should start thinking along those lines, declare alternative fuels such as CNG and LPG a public utility, and provide those rights. In the mean time, a LPG fueling station could simply be a storage tank topped off periodically by a tank truck.

The current focus of the federal government concentrating on fleets to change to alternative fuels through programs such as Clean Cities, or tax incentives, is simply not visible enough. A small blue sticker on the back of a pickup truck that says CNG, or even the words “Natural Gas Driven” or “Clean Vehicle”, is not very noticeable to the person trying to figure out how to change lanes to get ahead, some may not even know what it means.

Incentives

A single financial incentive to encourage the use of alternative fuels probably will not work for the reasons stated above. But a combination of complementary incentives where people are given the choice may work better. Incentives such as lower fuel taxes, low-interest loans, tax credits, sales-tax exemptions, or outright buy-downs, are alternatives worth considering.

In any scheme, encouraging greater use of the AFV, once it is acquired, is important. In other words, a person who has both an inefficient vehicle such as a SUV, and an efficient alternative, must be encouraged to use the efficient one when practical. This could be accomplished with a fuel-based incentive.

Whatever incentive or combination one comes up with, it should be proportional to the benefit to society. The incentive for an all-electric 3,440 lb. Toyota RAV4 EV SUV should be greater than

the incentive for a 1,878 lb. Honda Insight hybrid. Similarly, the incentive for a CNG vehicle should be greater than for an HEV.

Incentives are best administered through a government agency like the Department of Natural Resources because it is in their interest to track information about the applicants so that progress can be charted. The current system of a special fuels decal administered through the Department of Revenue, gives no clue as to who does what, how effective the program is, and whether fleets are complying with the law. A department like DNR could also stay in touch with potential and actual alternative fuel users through newsletters and email. Newsletters can reaffirm the message of alternative fuels and apprise of new developments and fuel station locations. Knowing the status of alternative fuel use would help any marketing efforts.

Conservation

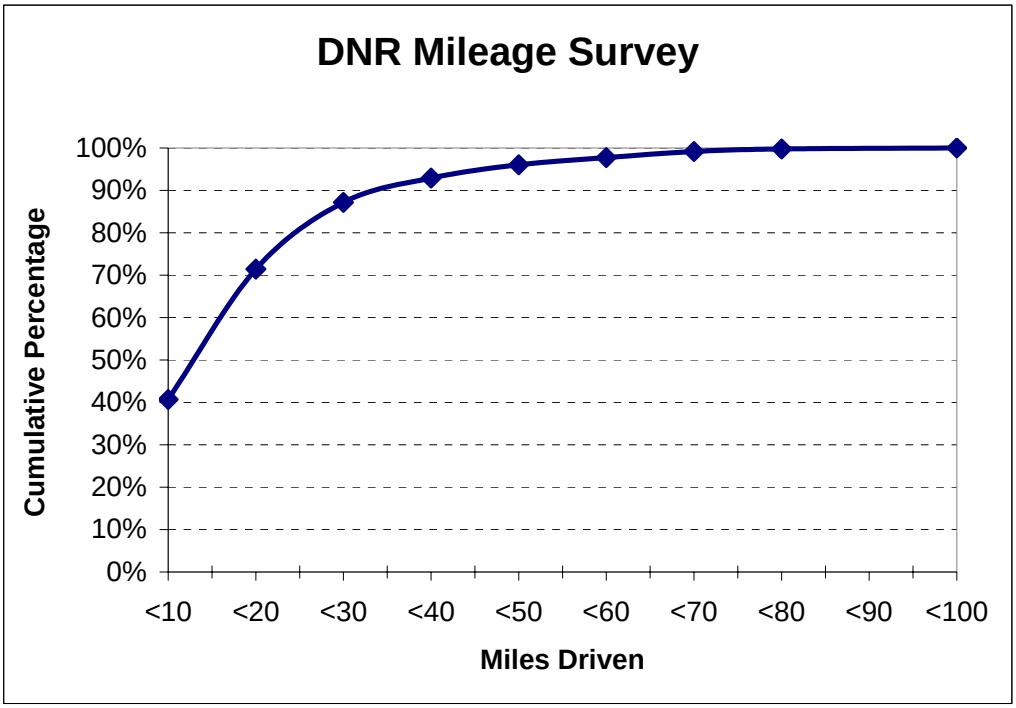
Working from home and telecommuting are both on the rise and are great ways to conserve energy. Benefits include reduced oil consumption, less pollution, less traffic congestion and time gained by not having to drive to work. Opportunities for telecommuting and technological advances in telecommunications are making working from home and remote locations viable. It is estimated that one in five employees are involved in some sort of teleworking one or more days a week. Maybe future versions of this report will be written from the author's home.

Congress last raised the Corporate Average Fuel Economy (CAFÉ) standards in 1985. The average fuel economy rose 82% between 1985 and 1987 because of the CAFE program but has since sagged as more Americans buy light trucks and SUVs (which are classified as light-duty trucks, which have no minimum standards). The safety and convenience of SUVs is cited as the main driving force for their demand. But it is a vicious circle because smaller vehicles become more and more unsafe in an ever-increasing environment of large vehicles.

Car-pooling and ride sharing programs can contribute in the effort to conserve. Many major metropolitan cities encourage carpooling by providing a telephone accessible service that matches potential carpoolers. There are cities in the world that provide car stands where people can go to borrow a car drive it to their destination, and just leave it there for someone else to pick up. The whole scheme is carefully controlled by computers to display availability, pick up points, and billing of users. Some areas encourage carpooling by providing special driving lanes along major arterial roads that are faster because they have less traffic. In some cases, very fuel-efficient vehicles may also use these Hi Occupancy Vehicle (HOV) lanes. For example, the California Air Resources Board (CARB) allows the Honda Civic GX a CNG Super Ultra Low-Emission Vehicle to drive in the HOV lane even with one occupant. Flex time policies, such as the one implemented at DNR, allow employees to work 10 hour days, 4 days per week, thus eliminating one day of commuting.

A survey was conducted among employees of the Louisiana Department of Natural Resources, the Department of Environmental Quality, and the State Library, a division of the Department of Culture and Tourism. Because the question, "how many miles do you drive to work one way?" was simple and easy to respond to, the response was very good. A total of 833 people responded

as indicated in the below. The shape of the curve was not surprising, but where the curve fell relative to the y-axis was.



It showed for example that 41% of the respondents drove less than 10 miles, 50% drove less than 13 miles, and 88% less than 30 miles, in other words people lived closer to work than expected. Of course, the survey was particular to Baton Rouge, Louisiana. It does, however, dispel the myth that a commuter car should have a range over 200 miles.

The Alternative Fuels Compared

Let us look at the basic properties of alternative fuels, compare them to gasoline and diesel, and see, from an energy point of view, how they stack up in providing automotive power. We look at the heating value, which is reasonable assuming all fuels are converted to automotive power using an internal combustion engine. We are thus ignoring the fact that Hydrogen could be used in a fuel cell, which is about twice as efficient as an internal combustion engine.

Property	Gasoline	Diesel	Methanol	Ethanol	MTBE	Propane	CNG	Hydrogen
Heating Value BTU/Lb	18,000-19,000	18,000-19,000	8,570	11,500	15,100	19,800	21,300	51,532
Heating Value BTU/Gal	115,000	128,400	56,800	76,000	93,500	84,500	19,800	

The heating value used in the table is the "lower" heating values, or the energy (heat) available when a pound or gallon of liquid fuel is converted to gaseous products. MTBE is not an alternative fuel, but is included in the table because it is a fuel additive used to oxygenate gasoline.

Biodiesel

Using biodiesel can reduce carbon dioxide by 78%. Acid rain-causing compounds are also significantly reduced over conventional diesel. Nitrogen oxides are slightly increased. Pure biodiesel (B100) may require some engine modification, 20% (B20) does not. Fuel economy and performance are not affected by switching from standard diesel to B20. Biodiesel is less than 0.1% share of the market, but production has grown from 5 million gallons in 2000 to 20 million gallons in 2001. B100 costs range from $1.95 to $3.00 per gallon. B20 costs $0.30 to $0.40 per gallon more than diesel.

Electricity

The main benefit of using electricity as a transportation fuel is the lack of tailpipe emissions. Electric vehicles (EVs) also require less maintenance and "fuel" costs are lower than conventional gasoline powered vehicles. Drawbacks to EVs include high initial costs, expensive battery replacement every 3 to 6 years and the inconvenience of charging batteries.

Ethanol

Ethanol is a great gasoline extender because it can replace up to 10% by volume without any problems from the fuel point of view. But fuel ethanol has its problems; it is more volatile, there is little production outside the Midwest, and shipping constraints limit its delivery options to rail or barges. E85 (85% ethanol, 15% gasoline) is gaining in popularity in Midwestern states. Several manufacturers offer flexible fuel vehicles (FFVs) that operate on anything from E85 to gasoline. Ford, GM, and Chrysler offer FFV versions of many of their popular vehicles. The only difference between the regular and FFV version is a sensor that determines the percentage of ethanol in the fuel and adjusts ignition timing accordingly. Materials used in the fuel system are also upgraded due to the corrosive nature of alcohol. The FFV versions usually cost no more than their regular counterparts. More information about FFVs and E85 can be found on the National Ethanol Vehicle Coalition website at: www.e85fuel.com.

Hydrogen

Hydrogen can be utilized as a transportation fuel in a couple of ways. First, it can be burned in internal combustion engines as pure hydrogen, or as a mixture of hydrogen and natural gas. Second, it can be used to feed a fuel cell to produce electricity. The latter of the two is the focus of intense research and development and widely touted as the replacement for the internal combustion engine.

Methanol

The average tank full of gas weighs about 110 lbs. A tank-full of methanol would weigh the same, but would give only about half the range. Methanol is closest to hydrogen (CH_3OH) in terms of environmental cleanliness. One of its drawbacks is that it attracts water, which is bad in an internal combustion engine. Another problem with methanol is its toxicity, both as a vapor and liquid. Swallowing even small amounts of methanol may cause blindness or death. Smaller doses may cause nausea, headache, abdominal pain and vomiting.

Natural Gas (Compressed Natural Gas and Liquefied Natural Gas)

Natural gas is a clean burning alternative to gasoline and diesel. CO emissions are reduced up to 90%, NO_x emissions reduced approximately 50%, and CO_2 emissions are reduced 30%. Natural gas can be used in existing internal combustion engines with modifications. Natural gas is stored on board a vehicle as either compressed natural gas (CNG) at about 3000 psi or as liquefied natural gas at about 150 psi. The price of natural gas has risen recently, making the economics of using it less appealing.

Liquefied Petroleum Gas (LPG)

LPG is a mixture of propane, propylene, butane, and butylene. Propane is the main ingredient and the terms LPG and propane are used interchangeably. LPG is the most widely used alternative fuel due to the existing distribution infrastructure. Emission reductions over gasoline and diesel are similar to natural gas. LPG is generally less expensive than gasoline, currently 10 to 15 cents less per gasoline gallon equivalent (gge).

New Alternative Fuel Vehicles and Related Technology

The most intense research and development efforts are currently centered on hydrogen fuel cells and related technologies. Several prototypes have been built and are currently being tested on public roads. Fuel cells hold the most promise for clean, efficient and petroleum free vehicles but face substantial barriers to becoming a practical reality. Hybrid electric vehicles (HEVs), while not officially classified as AFVs under EPact, are gaining popularity and provide many of the benefits of other AFVs. HEVs require no special fuel or maintenance requirements (other than battery replacement) and are currently available from Honda and Toyota. Several other manufacturers are set to introduce models in 2004 and beyond.

Hydrogen Fuel Cells

Fuel cells are very much like batteries in that they convert chemical energy directly into electrical energy via an arrangement of an anode, cathode and electrolyte. There are several types of fuel cells, generally characterized by the electrolyte material. One type of electrolyte used, and the most common used in transportation applications, is the proton exchange membrane (PEM). A basic PEM hydrogen fuel cell consists of an anode and cathode separated by the PEM. Hydrogen is fed to the anode while oxygen (from air) is fed to the cathode. As the hydrogen atoms are fed to the anode, they are separated into protons (hydrogen ions) and electrons with the help of a catalyst. The hydrogen ions pass through the PEM while the electrons, which are not able to pass through the PEM, flow through an external circuit to the cathode side producing usable electricity. As the hydrogen ions pass through the PEM, they recombine with electrons and oxygen (again with the help of a catalyst) to form water, the only emission from a hydrogen fuel cell.

Fuel cells have been around since 1839 when William Grove, an amateur physicist, discovered the principle behind the operation of the fuel cell and built the first one. The technology progressed little until NASA developed fuel cells for power during space flight in the 1960s. Industry recognized the potential and has been developing the technology over the last thirty or so years. Although fuel cells have been around for some time and are currently being used in stationary power applications, several formidable barriers need to be overcome before your next

new vehicle is powered by a fuel cell. The barriers have to do with the fuel cells themselves, the distribution and storage of hydrogen, and the method of obtaining hydrogen. Fuel cells need to increase power to weight ratios, lower startup time and respond faster to rapid changes in power requirement, and become less expensive to manufacture. The distribution of hydrogen is analogous to the "chicken or egg" dilemma. We don't need hydrogen distribution if there are no hydrogen fuel cell vehicles and vise versa. In the long run, the biggest obstacle will be how to obtain hydrogen. While hydrogen is the most abundant element, it does not exist by itself in nature. It is always attached to something else, usually oxygen or carbon. Therefore, we must expend energy to separate hydrogen from other compounds. Currently, most hydrogen is obtained by reacting natural gas (mostly methane, CH_4) and steam in a process called steam reformation. Hydrogen is basically an unlimited resource, but by consuming natural gas to obtain it, we are bypassing its unlimited resource potential. The electrolysis of water to disassociate hydrogen from oxygen can also be used to obtain hydrogen, but once again, limited resources are used to generate the electricity used for electrolysis. The future may lie in nuclear and renewable generated electricity to electrolyze water, but other technologies are being investigated.

Hybrid Electric Vehicles (HEV)

Hybrid electric vehicles (HEVs) use two sources of motive energy, electrical and mechanical, to propel the vehicle. As their name implies, the vehicles combine the efficiency of electrical drive systems with the longer driving range gained from liquid or gaseous fuels. An HEV usually has an electrical storage device such as a battery, flywheel, or ultra capacitor in combination with a mechanical device such as an internal combustion engine, gas turbine, or fuel cell.

Two different HEV configurations have been demonstrated to be practical, serial and parallel. In a series configuration, the internal combustion engine, turbine, or fuel cell is used to generate electricity to charge the batteries, flywheel, or ultra capacitor. The drivetrain is powered solely from the electric motor connected to the electrical storage device. The benefits of a series configuration are reduced engine power cycling because the engine never idles, a transmission may not be needed, and more options are available for mounting the engine and vehicle components. In a parallel configuration, the drive system can be powered simultaneously by the motor or by the mechanical device. In this configuration, during acceleration, hill climbing, or passing, both the electric motor and mechanical device can provide power to the drivetrain. Once the vehicle reaches cruising speed, the vehicle relies solely on the mechanical device to maintain speed. A parallel configuration could be set up to use an engine for highway driving and the power from the electric motor for accelerating. Some benefits of the parallel configuration are the vehicle has more power since both the engine and the motor can supply power simultaneously, a generator isn't needed, and it can be more efficient since power is directly coupled to the road, which reduces energy conversion losses. Some advantages of HEVs over traditional internal combustion engine vehicles are:

- If an internal combustion engine is used, the engine can be smaller because it shares the workload with the electrical motor. This provides weight reductions that can result in greater fuel economy.

- The engine can be optimized to operate within a specific speed range where fuel economy is greatest and emissions are least.
- The addition of liquid or gaseous fuels provides greater driving range than what could be obtained from just batteries alone. Coupled with higher fuel efficiency, a hybrid with an internal combustion engine can drive even farther than today's internal combustion engine vehicles before refueling.
- Regenerative braking can help minimize the energy lost when slowing down the vehicle.

These advantages are offset by the added complexity of the HEV and higher additional costs due to the dual fuel systems. A hybrid vehicle still produces emissions from the non-electric portion of the fuel, but since those emissions *can be* nearly as clean as electric vehicles and the hybrid can use alternative fuels to drive the mechanical system, HEVs are able to help clean the air and reduce the amount of fossil fuels used.

Both Toyota and Honda have production model hybrids on the market for about $20,000 or less, and both get in the range of 50 miles per gallon while achieving ultra low emission vehicle status. Other manufacturers including Ford, General Motors, and DaimlerChrysler plan to introduce hybrid electric vehicles in the very near future.

Buses are the largest market for commercial hybrids. There are at least six models available ranging from 22-foot shuttle buses to full size 40-foot buses. Most are powered by gasoline or diesel fuel, but some are designed for natural gas or propane.

The number of electric and hybrid electric vehicles in Louisiana is not presently known, but is estimated to be quite low. As costs become lower with increased production, these vehicles are expected to become more common in the near future.

Alternative Fuels in Louisiana

CNG and LPG

Most AFVs now used in Louisiana operate on CNG or LPG. A few are capable of operating on LNG. The total number of AFVs fueled by LPG or CNG has been steadily decreasing since 1994, as shown in Table 2 below. Official state government policy favors alternative fuels derived from natural gas; this policy is rooted in the rationale that the production of natural gas plays a major role in the state's economy and is also a clean fuel.

Compared to the over four million automobiles, trucks, and buses registered in Louisiana, the number of AFVs is still quite small. However, the number of AFVs is expected to increase in the future as fleet owners implement AFV purchase programs to comply with mandated deadlines, and more refueling stations become available and accessible to the public.

Table 2. Louisiana Department of Revenue and Taxation
SPECIAL FUELS TAX DECALS
Number of Vehicles Registered by Fuel Type

FISCAL YEAR*	LPG FUEL	CNG FUEL	TOTAL
1992-1993	1,509	204	1,713
1993-1994	1,419	250	1,669
1994-1995	1,374	636	2,010
1995-1996	1,244	664	1.908
1996-1997	1,168	531	1,699
1997-1998	1,031	447	1,478
1998-1999	965	393	1,358
1999-2000	707	359	1066
2000-2001	711	322	1033
2001-2002	623	268	891

* Fiscal year is July 1 through June 30 of the following year.
NOTE: Decals are issued for a one year period and must be renewed annually

Economic Factors of Using CNG [10, 12, 14, 15]

While compliance with federal and state legislation is the primary reason for converting to an alternative fuel, reducing operating costs is also a goal. Fuel costs for CNG are lower than conventional gasoline, but recent high natural gas prices have substantially narrowed the margin. Maintenance costs are usually lower due to the clean burning characteristics of natural gas. CNG conversion kits cost anywhere from $2,500 to $4,000. The cost of a new OEM dedicated CNG vehicle is $3,500 to $5,500 more than a comparable gasoline model. To help offset the cost, the federal government has set up financial incentives for individuals converting their own vehicles and for companies converting fleets. Under EPACT, a person or business can take a deduction from adjusted gross income of up to $2,000 for a passenger vehicle and up to $50,000 for a heavy-duty truck, van, or bus. For electric vehicles, a tax credit of 10% up to $4,000 is allowed.

The cost of a "fast-fill" CNG refueling station capable of handling about 300 cars per day with an eight-minute fill time could be $300,000 to $400,000. It is unlikely that these facilities will be built with private capital except in high population, urbanized areas where demand is sufficient to warrant the investment. Demand will not materialize unless there is a fueling infrastructure, but the fueling infrastructure will not be developed unless sufficient demand can justify it. To

encourage infrastructure development, EPACT provides for a deduction from adjusted gross income for the incremental costs of an AFV refueling facility up to $100,000.

Ultimately, the economic feasibility of conversion depends on how long a payback period the fleet owner is willing to accept for the savings in fuel costs to pay for the additional capital cost of conversion. This period will vary with the scope of the particular conversion program. To illustrate how the payback period is determined, the following procedure is suggested by DOE in reference 12. Representative fleet vehicle assumptions (government and utility fleets) were derived from references 14 and 15.

Average annual vehicle miles	16,000
Automobile miles per gallon (mpg)	30
Light truck/van mpg	20
Dedicated CNG Honda Civic GX sedan incremental cost	$4,500
Dedicated CNG Ford Econoline van incremental cost	$5,500

Regular unleaded gasoline cost, including all state and federal taxes: $1.50/gallon
CNG cost, including $0.16/gasoline gallon equivalent (gge) state
and $0.061/gge federal tax: $1.05/gge (Baton Rouge)

For the Honda Civic GX:

$4,500	incremental cost
- 900	less state tax credit (20% of incremental cost)
- 560	less federal tax deduction (28% tax bracket x $2,000 deduction)
$3,040	net incremental cost

For gasoline: $1.50/gallon ÷ 30 mpg = $0.0500/mile cost
For CNG: $1.05/gge ÷ 30 mpg = $0.0350/mile cost

Cost savings = $0.0500 - $0.0350 = $0.015/mile

Payback period = $3,040 ÷ $0.015/mile = 202,667 miles; at 16,000 miles per year, this is equivalent to about 12.7 years.

Note: These costs are representative for an individual private citizen. There may be other incentives or rebates that would result in a shorter payback period for the vehicles. For fleet owners, a number of advantages not available to the private citizen may lower overall costs and the payback period. For example, a fleet with its own refueling station may pay as little as $0.50/gge, plus applicable state and federal excise taxes (i.e., about $0.72/gge), and negotiations for multiple acquisitions may result in purchase prices as much as $1,000 per vehicle lower. The difference in fuel cost per gge reflects the cost of recovering capital equipment such as compressors for the fueling facility. If the refueling facility is owned by the fleet owner, then that cost is amortized separately from the direct fuel costs.

Table 3. Comparison of Payback Periods Using CNG at $1.05/gge for Gasoline Prices of $1.50/Gallon and $1.20/Gallon			
	Net Incremental Cost	**Gasoline cost $1.50/gallon**	**Gasoline cost $1.20/gallon**
Honda Civic GX (30 mpg assumed)	$3,040	202,667 miles 12.7 years	608,000 miles 38 years
Ford Econoline Van (20 mpg assumed)	$3,840	170,667 miles 10.7 years	512,000 miles 32 years

Table 4. Comparison of Payback Periods Using CNG at $0.75/gge for Gasoline Prices of $1.50/Gallon and $1.20/Gallon			
	Net Incremental Cost	**Gasoline cost $1.50/gallon**	**Gasoline cost $1.20/gallon**
Honda Civic GX (30 mpg assumed)	$3,040	121,600 miles 7.6 years	202,667 miles 12.7 years
Ford Econoline Van (20 mpg assumed)	$3,840	102,400 miles 6.4 years	170,667 miles 10.7 years

A worksheet for performing these calculations can be found on the DOE Alternative Fuel Vehicle Fleet Buyer's Guide internet site at **http://www.fleets.doe.gov.**

Tables 3 & 4 were taken from our last alternative fuels report in 2000, and were included here for comparison. CNG prices for a private individual in the Baton Rouge area are currently $1.17/gge at the pump plus $0.16/gge state tax for a total of $1.33/gge. Substituting this price in Table 3 and keeping gasoline at $1.50/gal, results in payback periods of 33.5 years for the Honda Civic GX and 28.2 years for the Ford Econoline van. Obviously, with gasoline and natural gas prices at current levels, CNG is at an economic disadvantage to gasoline. Fleet owners may still be able to make the numbers swing in favor of CNG.

CNG Gasoline-Equivalent Standard [13, 16]

The National Conference on Weights and Measures (NCWM) has adopted the value 5.660 lbs of CNG as the gasoline-gallon equivalent for CNG. This value affects the metering and measuring (and taxes) at retail dispensing pumps. Although the British thermal unit (Btu) content of CNG varies somewhat in different areas of the country, the NCWM value was published as a standard in National Institute of Standards and Technology (NIST) Handbook 130. Using the latest data published by DOE [21], the 5.660 lbs of CNG would be equivalent to:

115,400 Btu/gge ÷ 1,070 Btu/standard cubic foot average for Louisiana natural gas
= 107.85 scf/gge.

Public Acceptance of CNG

There has been little demand for personal NGVs by the general public. Three formidable obstacles continue to discourage consumer acceptance: (1) the $2,500 - $4,000 cost of conversion of an existing automobile is high; (2) the $3,500 - $5,500 additional cost of a new OEM vehicle is high; and (3) a convenient network of public access refueling stations is not yet in place. It is unlikely that an individual could drive enough miles to generate the fuel savings it would take to pay for his investment over a reasonable period of time. Simply put, for an individual it is usually neither cost effective nor convenient in today's market and infrastructure picture to transition to an AFV.

There are currently four CNG refueling stations in the state that offer unrestricted public access, and twelve private CNG stations. See Appendix A for specific information and contact details.

LPG (Propane) as an Alternative Fuel

LPG is the most widely used alternative fuel in the world. About 3.5 million on- and off-road vehicles worldwide and 350,000 in the U.S. are running on LPG. As of June 30, 2002, Louisiana had 623 vehicles registered as fueled by LPG. Exhaust emissions of hydrocarbons are not much lower than those from gasoline engines but are less reactive, thus reducing ozone production. Stored as a liquid, its storage tank is not much larger than a gasoline tank to yield the same driving range. Its retail price and operating cost varies but has been favorable enough over the years to maintain a secure position as a motor fuel without any government financial incentives to use it. Since most LPG fueled vehicles operate solely on LPG, they are *dedicated* AFVs (Ford offers an OEM bi-fuel pickup that operates on gasoline or LPG). LPG conversion kits cost from $1,500 to $2,000.

LPG is a byproduct of natural gas production and crude oil refining. Neither gas nor refinery production in the U.S. is expected to increase much in the foreseeable future so any significant increase in LPG demand could increase prices substantially. Any significant increase in propane as a vehicle fuel would compete with petrochemical feedstock uses of propane. Furthermore, additional supplies would have to be obtained from foreign sources, which is counter to the intent of EPACT to lessen dependence on foreign oil. Notwithstanding LPG's favorable technical characteristics as an alternative fuel, these constraints will likely limit its role as a major alternative fuel source.

The industry is represented by the Louisiana Propane Gas Association (LPGA), chartered in 1940. Its overall mission is to promote and develop the use of LPG in Louisiana so that it may serve the best interests of the public. The LPGA does not have an official program promoting propane as a motor fuel. For more information contact:

Louisiana Propane Gas Association
P.O. Box 14204
Baton Rouge, LA 70898
Phone: 225-922-7779; Fax: 225-922-7771
Email: louisianapropane@aol.com
Website: www.louisianapropane.com

Transportation Fuel Excise Taxes Applied to Alternative Fuels [7, 11, 17]

Motor fuel taxes play a significant role in the price differential between conventional and alternative fuels. The *Omnibus Budget Reconciliation Act of 1993*, signed into law by President Clinton on August 10, 1993, increased the *federal* excise tax on gasoline, diesel fuel, gasohol, and other transportation fuels by 4.3¢ per gallon, effective October 1, 1993. The 1997 omnibus budget bill reduced the federal excise tax on LNG, LPG, and methanol. However, Table 5 below shows that CNG is still taxed at a lower rate than the other fuels.

Table 5. Excise Taxes on Motor Fuels

Fuel		**Federal**	**Louisiana**
		$/gallon	**$/gallon**
Gasoline		0.1830	0.2000
Diesel		0.2430	0.2000
Gasohol	10% Ethanol	0.1290	0.2000
	7.7% Ethanol	0.1414	0.2000
	5.7% Ethanol	.01522	0.2000
Gasohol	10% Methanol	0.1230	0.2000
	7.7% Methanol	0.1368	0.2000
	5.7% Methanol	0.1488	0.2000
CNG		0.4844/mcf*	0.1600
LNG		0.1190	0.1600
Propane		0.1360	0.1600

* mcf = 1,000 standard cubic feet. Depending upon the Btu values used in conversion, the gasoline gallon equivalent value for CNG varies from $0.054 to $0.060/gallon.

The total *state* excise tax on *all* motor fuels, conventional and alternative **except** CNG, LPG, and LNG, is 20¢/gallon. This rate is the sum of the 16¢/gallon rate specified in the gasoline tax law and the special fuels tax law, plus 4¢/gallon specified in the *Transportation Infrastructure Model for Economic Development Law of 1989 (TIMED).* The TIMED tax applies to all private and

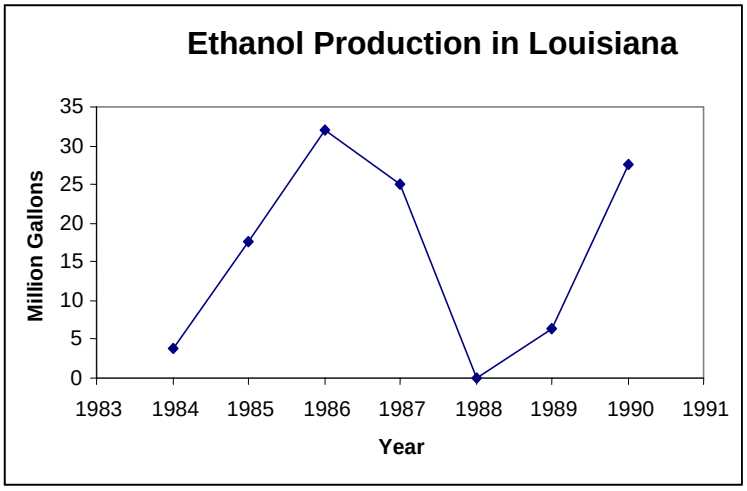
public entities, including state agencies and local governmental bodies, although it is not explicitly related to the subject of alternative fuels.

For vehicles weighing less than 10,000 pounds, the state tax on CNG, LPG, and LNG is based on the total rate and can be paid annually at a flat rate of 80% of $150.00, based on a 16¢/gallon total rate, or a variable rate of 80% of the *current* total rate. For example, since the total current rate is 20¢/gallon, the present annual flat rate is $120.00 ($150.00 x 80%); and the variable rate is 16¢/gallon (20¢ x 80%). The variable tax computation shall be based on estimated fuel efficiency of 12 miles/gallon, but not to exceed the annual flat rate. For the purpose of determining the amount of the tax and enforcement, the number of gallons of fuel used the previous year shall be determined by using a schedule for calculating the number of miles per gallon for the type of vehicle in question.

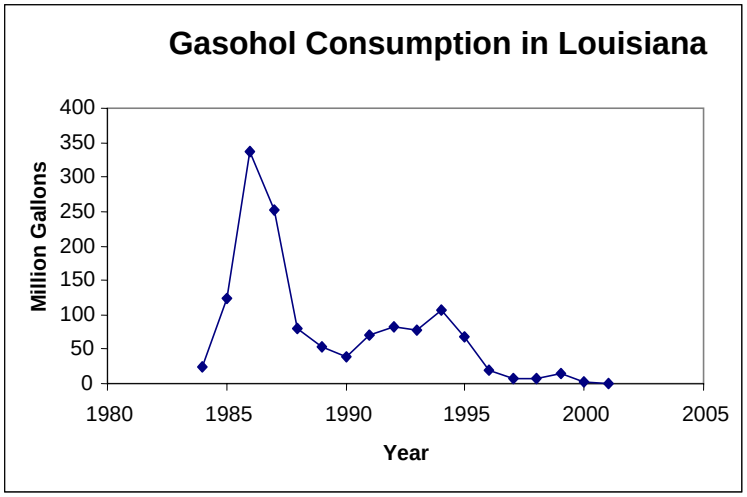
The state excise tax for school buses operating on CNG, LPG, or LNG that transport Louisiana students is the lesser of one-half of the regular flat rate or one-half of the variable rate.

Ethanol

Ethanol was produced in Louisiana from 1984 to 1990 with a peak of 32 million gallons in 1986. When state subsidies ended in 1988, ethanol production was no longer economically feasible and the last plant ceased production in 1990.



Gasohol consumption also peaked in 1986 at 336 million gallons and has since declined to almost zero.



See the department's publication entitled *Ethanol in Louisiana 1993* for a more complete history of the ethanol industry in Louisiana. Contact the department for a copy. There has been some renewed interest in ethanol in Louisiana and it may be produced in Louisiana again in the near future.

In 1994, the old Shepherd Oil refinery (converted to an ethanol plant) in Jennings, LA, was purchased by Massachusetts firm BC International with plans to convert it into a 20 million gallon per year (MM GPY) biomass-to-ethanol facility. The plant would utilize mainly bagasse as a feedstock, although the process is able to use a wide variety of agricultural and paper or wood waste products. The patented BCI process uses a genetically engineered microorganism that breaks down complex sugars contained in biomass. These complex sugars cannot be broken down by fermentation. Fermentation is the process used in conventional ethanol plants that converts the simple sugars contained in sugar cane and starchy raw materials such as corn into ethanol. The ability to make ethanol from wood and cellulosic biomass such as bagasse, wood chips, and waste paper opens up an opportunity to utilize much cheaper feedstocks than starch and sugar based crops. Due to the high yield of ethanol from the process, and the low cost of the feedstock, the ethanol produced at the facility is expected to be economically competitive with fossil fuels. Financing for the project is still pending. The Louisiana State Bond Commission approved the issuance of $120 million in bonds in February, 2000, but BCI couldn't find buyers for the bonds due to unfavorable market conditions. BCI has since switched to private financing and has secured $100 million of the $120 million needed to complete the project. As of now, construction is scheduled to begin in 2003 and start operating in mid-to-late 2004.

State Agriculture Commissioner Bob Odom was investigating the possibility of a 60 MM GPY ethanol plant near Lacassine, but the idea was scrapped when the estimated cost to build the plant came in too high. Dubbed "The Louisiana Green Fuels Project", the plant was to produce ethanol from sugar cane and other agricultural products and be constructed with proceeds from

the sale of bonds. The bonds were to be paid off with profits from the sale of ethanol. Local officials are still working to keep the idea alive. With ethanol poised to replace MTBE as an oxygenate in reformulated gasoline, and/or the passage of a federal renewable fuels standard (discussed later), the plant would probably find a healthy market for its ethanol.

Hybrid Electric Vehicles

Even though HEVs are not considered AFVs under EPact, they are gaining in popularity nationwide, and as mentioned previously, offer many of the benefits of AFVs without many of the drawbacks. HEVs are eligible for a $2000 federal tax deduction, and a Louisiana tax credit under R.S. 47:38. The Louisiana tax credit for AFVs was enacted before HEVs were available, but the Louisiana Department of Revenue has drafted a ruling to allow HEVs to receive the tax credit. The final ruling should soon be posted on LDR's website at http://www.rev.state.la.us/sections/lawspolicies/pd.asp.

Summary of Current Louisiana Alternative Fuels Legislation [2, 3, 17]

Act 927 of 1990 requires that 30% of new state agency vehicles must have a clean-fuel capability by September 1, 1994, increasing to 50% by September 1, 1996. The Act specifies that the Secretary of DEQ shall review the program by December 31, 1996 to determine whether emissions are effectively reduced, in which case at least 80% of the fleet must be capable of using alternative fuels by September 1, 1998. The vehicles can be leased or purchased, or existing state vehicles can be converted. The law provides two exceptions: if there is no alternative fuel source or if conversion to alternative fuels is more expensive than conventional fuels, the conversion targets may be waived. The exceptions apparently prevailed so that the Secretary of DEQ had insufficient data for evaluation.

Act 927 also gives the DNR Office of Conservation regulatory authority over CNG safety including refueling stations and the installation of conversion equipment in a vehicle. The regulations were adopted in January of 1992 as LAC Title 43, Part XI, Subpart 5, Chapter 25, Paragraphs 2501-2543. All questions pertaining to them should be directed to:

> Louisiana Department of Natural Resources
> Office of Conservation, Pipeline Division
> P.O. Box 94275
> Baton Rouge, LA 70804-9275
> Phone: 225-342-5513 or -5516

The Act also directs the Louisiana Liquefied Petroleum Gas Commission to make safety inspections on vehicles equipped for, and capable of, using LPG.

Act 954 of 1990 has the same provisions for vehicles of political subdivisions of the state as Act 927 does for state government vehicles. Instead of DEQ reviewing the program by December 31, 1996, the governing authority of each political subdivision does it.

Act 531 of 1990 deregulates the price of natural gas for use in vehicles capable of using CNG as a motor fuel.

Act 1060 of 1991 provides an income tax credit for AFVs and fueling infrastructure costs. A tax credit can be claimed for 20% of the cost of the equipment to modify a gasoline fueled vehicle to use an alternative fuel, as well as for property which is directly related to the dispensing of the fuel. In the case of a vehicle originally equipped to operate on an alternative fuel, if "the taxpayer is unable, or elects not to determine the exact basis which is attributable to such property, the taxpayer may claim a credit in an amount not exceeding the lesser of twenty percent of ten percent of the cost of the motor vehicle or one thousand five hundred dollars."

Act 516 of 1991 provides for an alternate method of paying the Special Fuels Tax on CNG, LPG, and LNG, when used as a motor vehicle fuel.

Act 169 of 1992 primarily provides that the tax credit authorized in Act 1060 shall apply only to vehicles registered in Louisiana.

Act 1067 of 1992 created the Louisiana Natural Gas Marketing Commission within DNR to promote and market gas in general. This commission was abolished by ***Act 1116 of 1997***.

Act 666 of 1993 reduces the Special Fuels Tax rate previously provided by Act 516 to an annual flat rate of $150.00 or a variable rate of 16¢/gallon based on the present total tax of 20¢/gallon.

Act 7 of 1994 lowers the Special Fuels Tax for owners of school buses to one-half the rate specified in Act 666.

Act 1210 of 1997 exempts from Special Fuels Tax recordkeeping requirements light vehicles rated at one ton or less and operated exclusively for commercial use, and private passenger motor vehicles or trucks having a gross weight of 6,000 pounds or less, which use special fuels other than CNG or LPG.

Act 35 of 1998 exempts from local sales taxes diesel fuel, butane, propane, and other liquefied petroleum gases used for farming purposes.

These acts have been incorporated into the state's ***Special Fuel Tax Law of 1964: R.S. 47:801 to 47:815.*** As amended through the 2002 legislative session, the law now levies a 16¢/gallon excise tax on alternative vehicle fuels and prescribes the method of collection, which includes paying an annual flat rate for CNG, LNG, or LPG. Application forms and additional information may be obtained from:

Louisiana Department of Revenue
Excise Taxes Division
P.O. Box 201
Baton Rouge, LA 70821-0201
Phone: 225-925-7656

The ***Transportation Infrastructure Model for Economic Development of 1989 (TIMED): R.S. 47:820.1 to 47:820.6***, as amended through the 2002 legislative session, levies an additional

4¢/gallon tax on all motor vehicle fuels already subject to the 16¢/gallon tax. This tax added to the gasoline and Special Fuels Tax gives a total tax of 20¢/gallon. This tax is levied, collected, and administered in the same manner as the gasoline and Special Fuels Tax, but the proceeds must be used solely to fund the TIMED program. The TIMED program itself is not relevant to the subject of alternative fuels; the tax applies to CNG, LNG, and LPG when used as a vehicle fuel.

In addition to the above legislation, Governor Edwards' ***Executive Order EWE 93-9***, March 9, 1993, ordered the conversion of approximately 25% of the state's motor vehicle fleet to natural gas. The project was terminated when the economics failed to work out, and the order expired when a new governor took office in 1996.

The complete text of Acts 927, 954, 531, 1060, and 169 is provided in Appendix B. The complete text of the Special Fuels Tax and the fuel tax portion of TIMED, as amended through the 1999 legislative session, is also included in Appendix B. Note that historical and statutory notes are not included, so the original documents should be consulted as the final authority.

Conclusion

Federal and state legislative mandates created a flurry of alternative fuel activity in Louisiana during the first 3-4 years of the 1990s. CNG emerged as the state's alternative fuel of choice, but the anticipated expansion of a statewide infrastructure has failed to develop sufficiently to support the mandates' schedules. In the particular case of CNG, some additional refueling stations have been established to serve a few private fleets. However, the number of public access CNG refueling stations in the state is increasing much slower than envisioned by legislative mandates. Federal and state tax incentives remain in place, but financial assistance to overcome substantial conversion costs and incremental costs for OEM vehicles has not been actively promoted.

Public acceptance of AFVs as personal vehicles remains virtually nonexistent as the high cost of conversion, long payback periods, and the continued lack of a refueling infrastructure as convenient as gasoline thwarts widespread participation. Since most gasoline is purchased by the general public for personal vehicles, a substantial shift to alternative fuels will only occur when the general public participates on a broad scale. The business of converting vehicles in the aftermarket is giving way to original equipment manufacturers (OEM) provision of "factory installed" alternative fuel units. The 2000 model year includes light duty offerings from General Motors, Ford, DaimlerChrysler, Honda, and Toyota along with a number of medium, heavy duty, and off-road vehicles from other manufacturers. Hybrid electric vehicles have great potential for reducing crude oil demand and air pollution, and OEM development activities are encouraging. As of mid 2002, Toyota and Honda have sold approximately 40,000 HEVs since 1999. HEV sales are growing and by model year 2005, no less than eight HEV models will be available for sale from different manufacturers.

There is no doubt that alternative fuels must be a federal and state priority over the next several years. Federal failure to achieve specified goals has not served as a positive example for the states, but internal audits may help correct the situation in the near future. Increased federal

AFV acquisitions will most likely serve as a catalyst for state, parish, and private entities as OEM offerings become more numerous and common. Once an appropriate infrastructure has been established for any given fuel, increased awareness and acceptance by the general public can be expected.

Appendix A

Compressed Natural Gas Stations in Louisiana

Name	Phone	Contact	Address	City	Status
Department of Public Works	225-924-1020 x204	Mark Babin	333 Chippewa St.	Baton Rouge	Public
Entergy Gas Operations	800-NGV-7411	Walter Ross	1 Palm Dr.	New Orleans	Public
Fuelman	225-924-1020 x 204	Mark Babin	4637 Florida Blvd.	Baton Rouge	Public
Fuelman	225-924-1020 x 204	Mark Babin	8968 S. Choctaw Dr.	Baton Rouge	Public
Entergy Gas Operations	800 NGV 7411	Walter Ross	5755 Choctaw Dr.	Baton Rouge	Private
Entergy Gas Operations	800-NGV-7411	Walter Ross	1600 Perdido St.	New Orleans	Private
Entergy Gas Operations	800-NGV-7411	Walter Ross	3700 Tulane Ave.	New Orleans	Private
Atmos Energy - Bridgedale	504 849 4362	George Strain	2000 Arnoult Rd.	Metairie	Private
Atmos Energy - Monroe	504 849 4362	George Strain	2809 Louisville Ave.	Monroe	Private
Atmos Energy - Norco	504 849 4362	George Strain	101 Apple St.	Norco	Private
Atmos Energy - Prairieville Office	504 849 4362	George Strain	38144 Post Office Rd.	Prairieville	Private
Atmos Energy - Taravella Road	504 849 4362	George Strain	5241 Taravella Rd.	Marrero	Private
Atmos Energy - Westbank Expy	504 849 4362	George Strain	1233 Westbank Expy	Harvey	Private
Reliant Energy	337 373 5224	Danny Hebert	2500 Louisiana Hwy. 14	New Iberia	Private
Reliant Energy	337 373 5224	Danny Hebert	3700 Gerstner Memorial Blvd.	Lake Charles	Private
South Coast Gas Company, Inc.	504 537 5281	Michael St. Romain	4076 Hwy. 1 South	Raceland	Private
ARKLA Gas Company	318-429-4405	Bobby York	1262 Dalzell St.	Shreveport	Shutdown

More details of this table are available at: http://www/SEC/EXECDIV/TECHASMT/programs/transportation/incentives.htm. Although most of the fueling stations are for fueling private CNG vehicle fleets, special arrangements are possible.

Appendix B

Selected Louisiana State Legislation Pertaining To Alternative Motor Vehicle Fuels

ACT No. 927 of 1990

— — —

SENATE BILL NO. 2
BY MESSRS. NUNEZ, BANKSTON, CHABERT AND HAINKEL AND
REPRESENTATIVES ANDING, HOLDEN, PATTI AND WARNER

AN ACT

To enact Part X of Chapter 7 of Title 30 of the Louisiana Revised Statutes of 1950, consisting of R.S. 30:751 and 752*, and R.S. 39:362.1*, relative to alternative fuels; to provide for the regulation of certain alternative fuels; to provide for conversion to alternative fuels of a certain percentage of state owned vehicles; to provide for reports; to provide for standards; to provide exceptions; and to provide for related matters.

Be it enacted by the Legislature of Louisiana:

Section 1. Part X of Chapter 7 of Title 30 of the Louisiana Revised Statutes of 1950, consisting of R.S. 30:751 and 752*, is hereby enacted to read as follows:

PART X. REGULATION OF COMPRESSED NATURAL GAS USED AS A VEHICULAR FUEL

§751*.Definitions

As used in this Part, the following words and phrases shall have the meanings hereinafter ascribed to them:

a. "Assistant secretary" means the assistant secretary of the Office of Conservation of the Department of Natural Resources.
b. "Compressed natural gas" means natural gas designated for vehicular use that is under pressures exceeding twenty-four hundred pounds per square inch.
c. "Compression and conversion equipment" means all equipment used in the compression, storage, transmission, and decompression of natural gas for the purpose of powering motor vehicles.

§752*.Regulation of compressed natural gas

The assistant secretary shall have the authority to regulate all activities related to the safety of compressed natural gas and shall establish by regulation minimum safety standards for compressed natural gas compression and conversion equipment including the installation and operation of such equipment. For vehicles equipped for and capable of using liquefied petroleum gas, each vehicle shall first be inspected for safety of operation by an inspector of the Louisiana Liquefied Petroleum Gas Commission.

Section 2. R.S. 39:362.1* is hereby enacted to read as follows:

362.1.* Purchase or lease of fleet vehicles; use of alternative fuels; exceptions

A.(1) After September 1, 1991, the commissioner of administration shall not purchase or lease any motor vehicle for use by any state agency unless that vehicle is capable of and equipped for using an alternative fuel which results in lower emissions of oxides of nitrogen, volatile organic compounds, carbon monoxide, or particulates or any combination thereof which meet or exceed federal Clean Air Act standards. Alternative fuels shall include compressed natural gas, liquefied petroleum gas, reformulated gasoline, methanol, ethanol, electricity, and any other fuels which meet or exceed federal Clean Air Act standards.

(2) A state agency may acquire or be provided equipment or refueling facilities necessary to operate such vehicles using alternative fuels by any of the following methods:

(a) Purchase or lease as authorized by law provided that the state shall recoup its actual costs, including finance charges, through reduced costs of operating such vehicles within forty-eight months of the purchase or lease.

(b) Gift or loan of the equipment or facilities.

(c) Gift or loan of the equipment or facilities or other arrangement pursuant to a service contract for the supply of alternative fuels.

(d) Performance-based energy efficiency contracts under the provisions of R.S. 39:1496.1.

(3) The commissioner may waive the requirements of this Subsection for any state agency upon receipt of certification supported by evidence acceptable to the commissioner that either of the following situations applies:

(a) The agency's vehicles will be operating primarily in an area in which neither the agency nor a supplier has or can reasonably be expected to establish a central refueling station for alternative fuels.

(b) The agency is unable to acquire or be provided equipment or refueling facilities necessary to operate vehicles using alternative fuels at a projected cost that is reasonably expected to result in no greater net costs than the continued use of traditional gasoline or diesel fuels measured over the expected useful life of the equipment or facilities supplied.

B.(1) The commissioner shall achieve the following percentages of vehicles capable of using alternative fuels by the times specified:

(a) The percentage shall be equal to or greater than thirty percent of the number of fleet vehicles operated by September 1, 1994.

(b) The percentage shall be equal to or greater than fifty percent of the number of fleet vehicles operated by September 1, 1996.

(2) The secretary of the Department of Environmental Quality shall review this alternative fuel use program on or before December 31, 1996, and, if the secretary determines that the program has been effective in reducing total annual emissions from motor vehicles in the area, the commissioner shall achieve a percentage of fleet vehicles capable of using alternative fuels equal to or greater than eighty percent of the number of fleet vehicles operated by September 1, 1998, and thereafter.

(3) The division of administration in its annual fiscal report to the legislature shall show its progress in achieving these percentage requirements by itemizing purchases, leases, and conversions of motor vehicles and usage of alternative fuels.

C. The commissioner, in the development of the alternative fuel use programs, shall consult with state agency fleet operators, vehicle manufacturers and converters, fuel distributors, and others to delineate the vehicles to be covered, taking into consideration range, specialty uses, fuel availability, vehicle manufacturing and conversion capability, safety, resale values, and other relevant factors. In order to maximize the savings to the state, the commissioner shall attempt to the extent possible to first convert those vehicles that are used the most often for the most miles. The commissioner may meet the percentage requirements of this Section through purchase or lease of new vehicles or the conversion of existing vehicles, in accordance with federal and state requirements and applicable safety laws and standards, to use the alternative fuels.

D. The commissioner may reduce any percentage specified or waive the requirements of Subsection B of this Section for any state agency upon receipt of certification supported by evidence acceptable to the commissioner that either of the following situations apply:

(1) The agency's vehicles will be operating primarily in an area in which neither the agency nor a supplier has or can reasonably be expected to establish a central refueling station for alternative fuels.

(2) The agency is unable to acquire or be provided equipment or refueling facilities necessary to operate vehicles using alternative fuels at a projected cost that is reasonably expected to result in no greater net costs than the continued use of traditional gasoline or diesel fuels measured over the expected useful life of the equipment or facilities supplied.

E. The provisions of this Section shall apply to any vehicles operated by law enforcement agencies or used as emergency vehicles but only to the extent deemed feasible after consultations and considerations of this Section provided in Subsections C and D and a proper determination made thereon as to the feasibility thereof.

F. The joint legislative committee on the budget shall exercise oversight over the implementation of the provisions of this Section.

Section 3. At no time shall the state enter into any program providing subsidies or incentive payments for the production of compressed natural gas, liquefied petroleum gas, reformulated gasoline, methanol, or ethanol.

Approved by the Governor, July 25, 1990
Published in the Official Journal of the State:
August 17, 1990.
A true copy:
W. Fox McKeithen
Secretary of State

* Subsequently redesignated as R.S. 30:731 and 732, and R.S. 39:364

ACT No. 954 of 1990

— — —

SENATE BILL NO. 309
BY MR. NUNEZ AND REPRESENTATIVES ANDING AND HOLDEN

AN ACT

To enact Part XIII of Chapter 2 of Title 33 of the Louisiana Revised Statutes of 1950, to be comprised of R.S. 33:1418, relative to vehicles owned by political subdivisions; to provide for conversion to alternative fuels of a certain percentage of vehicles owned by political subdivisions; to provide for standards; to provide exceptions; to provide definitions; and to provide for related matters.

Be it enacted by the Legislature of Louisiana:

Section 1. Part XIII of Chapter 2 of Title 33 of the Louisiana Revised Statutes of 1950, comprised of R.S. 33:1418, is hereby enacted to read as follows:

PART XIII. GENERAL PROVISIONS

§1418. Purchase or lease of fleet vehicles; use of alternative fuels; exceptions; definitions

A.(1) A political subdivision may purchase or lease, after September 1, 1991, any motor vehicle, for use by any agency of the political subdivision, if that vehicle is capable of and equipped for using an alternative fuel which results in lower emissions of oxides of nitrogen, volatile organic compounds, carbon monoxide, or particulates, or any combination thereof which meet or exceed federal Clean Air standards. Alternative fuels shall include compressed natural gas, liquefied petroleum gas, reformulated gasoline, methanol, ethanol, electricity, and any other fuels which meet or exceed federal Clean Air standards.

(2) An agency of a political subdivision may acquire or be provided equipment or refueling facilities necessary to operate such vehicles using alternative fuels by any of the following methods:

(a) Purchase or lease as authorized by law.

(b) Gift or loan of the equipment or facilities.

(c) Gift or loan of the equipment or facilities or other arrangement pursuant to a service contract for the supply of alternative fuels.

(3) If such equipment or facilities are donated, loaned, or provided through other arrangement with the supplier of alternative fuels, the supplier shall be entitled to recoup its actual cost of

donating, loaning, or providing the equipment or facilities through its fuel charges under the supply contract.

(4) The governing authority of a political subdivision may waive the requirements of this Subsection for any agency of a political subdivision upon receipt of certification supported by evidence acceptable to that governing authority that either of the following situations apply:

(a) The agency's vehicles will be operating primarily in an area in which neither the agency nor a supplier has or can reasonably be expected to establish a central refueling station for alternative fuels.

(b) The agency is unable to acquire or be provided equipment or refueling facilities necessary to operate vehicles using alternative fuels at a projected cost that is reasonably expected to result in no greater net costs than the continued use of traditional gasoline or diesel fuels measured over the expected useful life of the equipment or facilities supplied.

B.(1) Each political subdivision shall achieve the following percentages of vehicles capable of using alternative fuels by the times specified:

(a) The percentage shall be equal to or greater than thirty percent of the number of fleet vehicles operated by September 1, 1994.

(b) The percentage shall be equal to or greater than fifty percent of the number of fleet vehicles operated by September 1, 1996.

(2) The governing authority of each political subdivision shall review this alternative fuel use program on or before December 31, 1996, and, if the governing authority determines that the program has been effective in reducing total annual emissions from motor vehicles in the area, the governing authority shall achieve a percentage of fleet vehicles capable of using alternative fuels equal to or greater than eighty percent of the number of fleet vehicles operated by September 1, 1998, and thereafter.

C. The governing authority of each political subdivision, in the development of the alternative fuel use program, shall consult with vehicle manufacturers and converters, fuel distributors, and others to delineate the vehicles to be covered, taking into consideration range, specialty uses, fuel availability, vehicle manufacturing and conversion capability, safety, resale values, and other relevant factors. The governing authority may meet the percentage requirements of this Section through purchase or lease of new vehicles or the conversion of existing vehicles, in accordance with federal and state requirements and applicable safety laws and standards, to use the alternative fuels.

D. The governing authority of a political subdivision may reduce any percentage specified or waive the requirements of Subsection B of this Section for any agency of a political subdivision upon receipt of certification supported by evidence acceptable to the governing authority that either of the following situations apply:

(1) The agency's vehicles will be operating primarily in an area in which neither the agency nor a supplier has or can reasonably be expected to establish a central refueling station for alternative fuels.

(2) The agency is unable to acquire or be provided equipment or refueling facilities necessary to operate vehicles using alternative fuels at a projected cost that is reasonably expected to result in no greater net costs than the continued use of traditional gasoline or diesel fuels measured over the expected useful life of the equipment or facilities supplied.

E. The provisions of this Section shall not apply to any vehicles operated by law enforcement agencies or used as emergency vehicles.

F. As used in this Part, "political subdivision" means a parish, municipality, and any other unit of local government, including a school board and a special district, authorized by law to perform governmental functions.

Section 2. At no time shall a political subdivision enter into any program providing subsidies or incentive payments for the production of compressed natural gas, liquefied petroleum gas, reformulated gasoline, methanol, or ethanol.

Approved by the Governor, July 25, 1990.
Published in the Official Journal of the State:
August 22, 1990.
A true copy:
W. Fox McKeithen
Secretary of State

ACT No. 531 of 1990

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SENATE BILL NO. 3
BY MESSRS. NUNEZ AND BANKSTON AND REPRESENTATIVES HOLDEN AND PATTI

AN ACT

To amend and reenact R.S. 45:1163(A), relative to regulation by the Public Service Commission; to provide for deregulation of direct sales of natural gas used in certain motor vehicles; and to provide for related matters.

Be it enacted by the Legislature of Louisiana:

Section 1. R.S. 45:1163(A) is hereby amended and reenacted to read as follows:

§1163. Power to regulate rates and service; exceptions

A.(1) The commission shall exercise all necessary power and authority over any street railway, gas, electric light, heat, power, waterworks, or other local public utility for the purpose of fixing and regulating the rates charged or to be charged by and service furnished by such public utilities.

(2) However, no aspect of direct sales of natural gas by natural gas producers, natural gas pipeline companies, natural gas distribution companies, or any other person engaging in the direct sale of natural gas to industrial users for fuel or for utilization in any manufacturing process, or to any person for use in vehicles capable of using compressed natural gas which when combusted results in comparably lower emissions of oxides of nitrogen, volatile organic compounds, carbon monoxide, or particulates or any combination thereof, shall be subject to such regulation by the commission.

(3) In addition, a schedule of rates of an electric cooperative shall not require approval of the commission if the schedule previously was approved by the board of directors of the electric cooperative and by the federal government or any agency thereof, nor shall the authority of the commission extend to the service rendered by electric cooperatives except to the extent provided in R.S. 45:123 and in orders of the commission promulgated to effectuate the purposes of R.S. 45:123.

Approved by the Governor, July 19, 1990.
Published in the Official Journal of the State:
August 7, 1990.
A true copy:
W. Fox McKeithen
Secretary of State

ACT No. 1060 of 1991

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SENATE BILL NO. 537

BY SENATOR BANKSTON AND REPRESENTATIVES ADLEY, ALARIO, R. ALEXANDER, ANDING, ANSARDI, ARMSTRONG, ATER, BACQUE', BRADLEY, BRUN, CARRIER, CRANE, DASTUGUE, DIXON, DOWNER, DUKE, FORSTER, HAIK, HEBERT, HOLDEN, IVON, JACKSON, KIMBALL, LABORDE, MCCLEARY, MCDONALD, MCFERREN, ODINET, ORR, PATTI, PRATT, REILLY, ROACH, ST. RAYMOND, SALTER, SINGLETON, SIRACUSA, SITTIG, JACK SMITH, SOUR, STELLY, STINE, STRAIN, STEVE THERIOT, THOMPSON, VOLENTINE AND WARNER

AN ACT

To enact R.S. 47:38 and 287.756 relative to taxation; to provide with respect to an income tax credit for conversion of vehicles to alternative fuel usage; to provide for definitions; to provide for the calculation of such credit; to provide for carry forwards; and to provide for related matters.

Be it enacted by the Legislature of Louisiana:

Section 1. R.S. 47:38 and 287.756 are hereby enacted to read as follows:

§38. Tax credit for conversion of vehicles to alternative fuel usage

A. The intent of this Section is to provide an incentive to persons or corporations to invest in qualified clean-burning motor vehicle fuel property. Any person or corporation investing in such property as specified herein shall be allowed a credit against the tax liability due under the income tax as determined pursuant to Subsection C of this Section.

B. As used in this Section, the following words and phrases shall have the meaning ascribed to them in this Subsection.

(1) "Alternative fuel" means a fuel which results in comparably lower emissions of oxides of nitrogen, volatile organic compounds, carbon monoxide, or particulates, or any combination thereof and includes compressed natural gas, liquefied natural gas, liquefied petroleum gas, reformulated gasoline, methanol, ethanol, electricity, and any other fuels which meet or exceed federal clean air standards.

(2) "Qualified clean-burning motor vehicle fuel property" means:

(a) Equipment installed to modify a motor vehicle which is propelled by gasoline so that the vehicle may be propelled by an alternative fuel provided such motor vehicle is registered with the Louisiana Department of Public Safety and Corrections.

(b) A motor vehicle originally equipped to be propelled by an alternative fuel but only to the extent of the portion of such motor vehicle which is attributable to the storage of such fuel, the delivery to the engine of such motor vehicle of such fuel, and the exhaust of gases from combustion of such fuel provided such motor vehicle is registered with the Louisiana Department of Public Safety and Corrections.

(c) Property which is directly related to the delivery of an alternative fuel into the fuel tank of a motor vehicle propelled by such fuel, including compression equipment, storage tanks, and dispensing units for such fuel at the point where such fuel is so delivered provided such property is located in Louisiana.

C. The credit provided for in Subsection A of this Section shall be twenty percent of the cost of the qualified clean-burning motor vehicle fuel property.

D. In cases where no credit has been claimed pursuant to Subsection C of this Section and in which a motor vehicle is purchased by a taxpayer with qualified clean-burning motor vehicle fuel property installed by the manufacturer of such motor vehicle and the taxpayer is unable or elects not to determine the exact basis which is attributable to such property, the taxpayer may claim a credit in an amount not exceeding the lesser of twenty percent of ten percent of the cost of the motor vehicle or one thousand five hundred dollars provided such motor vehicle is registered with the Louisiana Department of Public Safety and Corrections.

E. If the tax credit allowed pursuant to Subsection A of this Section exceeds the amount of income taxes due or if there are no state income taxes due on the income of the taxpayer, the amount of the credit not used as an offset against the income taxes of a taxable year may be carried forward as a credit against subsequent income tax liability for a period not to exceed three tax years.

F. A husband and wife who file separate returns for a taxable year in which they could have filed a joint return may each claim only one-half of the tax credit that would have been allowed for a joint return.

§287.756. Tax credit for environmental equipment purchases

A. Any business entity authorized to do business in the state of Louisiana and subject to the state corporation income tax imposed by this Part, except a corporation classified under the Internal Revenue Code as a Subchapter S Corporation, shall be allowed a tax credit for the purchase of environmental equipment designed to recover or recycle chlorofluorocarbons used as refrigerants in commercial, home, and automobile air-conditioning systems, refrigeration units, and industrial cooling applications.

B. The tax credit shall be twenty percent of the purchase price of the equipment if paid for in a single taxable year. If the equipment purchased is financed over two or more taxable years, the tax credit in a taxable year shall be twenty percent of that portion of the original purchase price paid in that taxable year.

C. All environmental equipment for which a tax credit is sought shall conform with technical standards set by the secretary of the Department of Environmental Quality. The secretary of the Department of Revenue shall utilize those standards in the promulgation of such rules and regulations as may be deemed necessary to carry out the purposes of this Section.

D. The tax credit allowed by this Section shall apply only to equipment purchased between July 1, 1989 and December 31, 1991. The credit for equipment purchased prior to January 1, 1991 shall be claimed on either an amended return for the applicable tax year or in the first taxable year filing following January 1, 1991.

E. The tax credit allowed by this Section shall not exceed the total income tax liability of the corporation.

Section 2. The provisions of this act shall be effective for all taxable periods beginning after December 31, 1990.

Approved by the Governor, July 29, 1991.
Published in the Official Journal of the State:
August 28, 1991.
A true copy:
W. Fox McKeithen
Secretary of State

ACT No. 169 of 1992

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HOUSE BILL NO. 527

BY REPRESENTATIVES STEVE THERIOT, ACKAL, ALARIO, COPELIN, AND DEWITT AND SENATORS BANKSTON, BRINKHAUS, FIELDS, KELLY, NUNEZ, AND JOHNSON

AN ACT

To amend and reenact R.S. 47:38(B)(2) and (D) and 287.757(B)(2) and (D), to provide that the tax credit for the purchase of qualified clean burning motor vehicles or for certain cost incurred to convert motor vehicles to use certain alternative fuels shall apply only to vehicles registered in Louisiana; and to provide for related matters.

Be it enacted by the Legislature of Louisiana:

Section 1. R.S. 47:38(B) (2) and (D) and 287.757(B) (2) and (D) are hereby amended and reenacted to read as follows:

§38. Tax credit for conversion of vehicles to alternative fuel usage

B. As used in this Section, the following words and phrases shall have the meaning ascribed to them in this Subsection.

(2) "Qualified clean-burning motor vehicle fuel property" means:

(a) Equipment installed to modify a motor vehicle which is propelled by gasoline so that the vehicle may be propelled by an alternative fuel provided such motor vehicle is registered with the Louisiana Department of Public Safety and Corrections.

(b) A motor vehicle originally equipped to be propelled by an alternative fuel but only to the extent of the portion of such motor vehicle which is attributable to the storage of such fuel, the delivery to the engine of such motor vehicle of such fuel, and the exhaust of gases from combustion of such fuel provided such motor vehicle is registered with the Louisiana Department of Public Safety and Corrections.

(c) Property which is directly related to the delivery of an alternative fuel into the fuel tank of a motor vehicle propelled by such fuel, including compression equipment, storage tanks, and dispensing units for such fuel at the point where such fuel is so delivered provided such property is located in Louisiana.

D. In cases where no credit has been claimed pursuant to Subsection C of this Section and in which a motor vehicle is purchased by a taxpayer with qualified clean-burning motor vehicle fuel property installed by the manufacturer of such motor vehicle and the taxpayer is unable or elects not to determine the exact basis which is attributable to such property, the taxpayer may claim a credit in an amount not exceeding the lesser of twenty percent of ten percent of the cost of the

motor vehicle or one thousand five hundred dollars provided such motor vehicle is registered with the Louisiana Department of Public Safety and Corrections.

§287.757. Tax credit for conversion of vehicles to alternative fuel usage

B. As used in this Section, the following words and phrases shall have the meaning ascribed to them in this Subsection.

(2) "Qualified clean-burning motor vehicle fuel property" means:

(a) Equipment installed to modify a motor vehicle which is propelled by gasoline so that the vehicle may be propelled by an alternative fuel provided such motor vehicle is registered with the Louisiana Department of Public Safety and Corrections.

(b) A motor vehicle originally equipped to be propelled by an alternative fuel but only to the extent of the portion of such motor vehicle which is attributable to the storage of such fuel, the delivery to the engine of such motor vehicle of such fuel, and the exhaust of gases from combustion of such fuel provided such motor vehicle is registered with the Louisiana Department of Public Safety and Corrections.

(c) Property which is directly and exclusively related to the delivery of an alternative fuel into the fuel tank of a motor vehicle propelled by such fuel, including compression equipment, storage tanks, and dispensing units for such fuel at the point where such fuel is so delivered, provided such property is located in Louisiana.

D. In cases where no credit has been claimed pursuant to Subsection C of this Section and in which a motor vehicle is purchased by a taxpayer with qualified clean-burning motor vehicle fuel property installed by the manufacturer of such motor vehicle and the taxpayer is unable or elects not to determine the exact basis which is attributable to such property, the taxpayer may claim a credit in an amount not exceeding the lesser of twenty percent of ten percent of the cost of the motor vehicle or one thousand five hundred dollars, provided such motor vehicle is registered with the Louisiana Department of Public Safety and Corrections.

Section 2. The provisions of this Act shall be effective for all taxable periods beginning on or after January 1, 1992.

Approved by the Governor, June 8, 1992.
Published in the Official Journal of the State:
July 1, 1992.
A true copy:
W. Fox McKeithen
Secretary of State

Special Fuels Tax Law
R.S. 47:801 to 47:815.1
(As amended through the 2002 Regular Session)

§801. Definitions

As used in this Part the following words, terms and phrases have the meaning ascribed to them in this Section, except where the context indicates a different meaning:

(1) "Bulk", as used in connection with the sale and handling of special fuels, means a quantity of distillate fuel in excess of five (5) gallons, and any quantity of liquefied gas other than in cylinders containing one hundred (100) pounds or less.

(2) "Dealer" means and includes every person who sells special fuels at retail and delivers such special fuels into the fuel supply tanks of motor vehicles.

(3) "Dyed fuel" means any fuel meeting the definition of special fuels that is required to be dyed pursuant to the requirements of the Internal Revenue Service and is destined for tax-exempt uses or other uses as specifically authorized.

(4) "Exporting" means taking special fuels out of this state in the fuel supply tanks of a motor vehicle.

(5) "Fire truck" means vehicles built with the capability of operating fire fighting equipment such as hoses, ladders, and pumps and carrying teams of firefighters to fire scenes.

(6) "Importing" means bringing special fuels into this state in the fuel supply tanks of a motor vehicle.

(7) "Interstate User" means any person who imports or exports special fuels into or out of this state in the fuel supply tanks of motor vehicles owned or operated by him.

(8) "Motor Vehicle" means and includes any automobile, truck, truck-tractor, tractor, bus, vehicle, or other conveyance which is propelled by an internal combustion engine or motor, and is licensed, or required to be licensed, for highway use.

(9) "Person" includes, in addition to the definition contained in R.S. 47:2, all cities, municipalities, and other subdivisions, departments, agencies, boards and instrumentalities of a state.

(10) "Special Fuels" means and includes all combustible gases and liquids used or suitable for use in an internal combustion engine or motor for the generation of power for motor vehicles, except such fuels as are subject to the tax imposed by Part I of Chapter 7 of Title 47 of the Louisiana Revised Statutes of 1950.

(11) "Supplier" means any person who sells or delivers special fuels to a user or dealer in this state for resale or use.

(12) "Use" or "Used" means,

(a) Keeping special fuels in storage and selling, using or otherwise dispensing, for the operation of motor vehicles.

(b) Selling special fuels in this state to be used for operating motor vehicles.

(c) Operating a motor vehicle in this state with special fuels.

(d) Importing special fuels into this state.

(13) "User" means and includes every person who delivers or causes to be delivered any special fuels into the fuel supply tanks of motor vehicles owned or operated by him.

§802. Imposition of tax

A. There is hereby levied a tax of sixteen cents per gallon on all special fuels, as defined in R.S. 47:801, when sold, used, or consumed in the state of Louisiana for the operation of motor vehicles, licensed or required to be licensed for highway use, to be computed, collected, reported, and paid as hereafter set forth, except that whenever liquefied petroleum gas or compressed natural gas is sold to, delivered to, or used by any person who pays the annual fuel tax levied under the provisions of R.S. 47:802.3, the imposition of the tax levied under the provisions of this Section shall not apply.

B. The full amount of taxes collected pursuant to this Section shall be credited to the Bond Security and Redemption Fund.

C. The monies shall be used solely to fund projects of the Highway Priority Program (R.S. 48:228 et seq.), the Parish Transportation Fund (R.S. 48:751 et seq.), the Statewide Flood-Control Program (R.S. 38:90.1 et seq.), and the Parish Bridge Replacement Program. Such monies shall be expended solely from year to year as appropriated by the legislature for the purposes of the Highway Priority Program, the Parish Transportation Fund, and the Statewide Flood-Control Program.

§802.1. Refunds; undyed diesel fuel used for other than highway purposes

A. Prior to purchasing undyed special fuel for nontaxable purposes, a user must meet the following requirements and conditions in order to file a claim for refund or credit.

(1) The user must make application to receive approval from the Department of Revenue, on forms prescribed by the secretary, stating the purposes for which such fuel will be used.

(2) The user must furnish a copy of the department's approval to his supplier prior to purchasing fuel.

B. Users, meeting the qualifications of Subsection A, who have paid the taxes levied under R.S. 47:802(A) and 820.1(A) on undyed special fuels may obtain a refund when the fuel is used for a purpose other than in a vehicle licensed or required to be licensed for highway use. This refund can be exercised under one of the following options, each of which shall foreclose the user from exercising any other option as related to the same period and fuel:

(1) Users may file a quarterly refund claim with the secretary of the Department of Revenue setting forth the amount of fuel purchased during the quarter with the amount of tax paid, the licensed suppliers from which the fuel was purchased and the purpose for which the fuel was used on forms prescribed by the secretary.

(2) Users may assign the right to their refund to the licensed suppliers who sold or delivered the fuel to the user. Such licensed suppliers shall issue a credit to the user for the tax and, having done so, may then claim the credit on the return filed for the reporting period in which the credit was given.

C. The secretary shall promulgate rules and regulations for the administration and enforcement of this Section.

§802.2. Refunds; licensed vehicles used by commercial fishermen

A. The secretary of the Department of Revenue shall make refunds of special fuels taxes on undyed tax-paid special fuels used in any vehicle utilized by a licensed commercial fisherman in the administration of business associated with commercial fishing only when the requirements of this Section have been fully complied with.

B. A claimant for a refund pursuant to this Section shall be registered with the secretary of the Department of Revenue prior to filing for a refund. Claims for refund must be filed within six months after the date of purchase on forms prescribed by the secretary. Purchases that are dated six months prior to filing the claim shall be disallowed and the claim reduced by the amount shown on the invoice. No more than one claim shall be filed for any particular period and all claims shall be signed by the claimant or his authorized agent.

C. An authorized refund claimant shall submit a claim indicating the miles traveled and gallons purchased for the period in which the claim is filed, together with the original special fuels invoice completely filled out. Special fuels invoices which do not meet the requirements of R.S. 47:806(B)(2)(a) shall be disallowed.

§802.3. Users of liquefied petroleum gas or compressed gas annual fuel tax; certain vehicles excepted

A. The owner or operator of a motor vehicle having a gross weight of ten thousand pounds or less which is propelled by an internal combustion engine or motor capable of using liquefied petroleum gas or compressed natural gas as fuel shall pay the special fuels tax by paying either an annual flat rate in the amount of eighty percent of one hundred fifty dollars, based on a sixteen-cent-per-gallon special fuels tax rate or a variable rate of eighty percent of the current special fuels tax rate. The variable tax computation shall be based on estimated fuel efficiency of twelve miles per gallon, but not to exceed the annual flat rate. In the event of an increase or reduction of the special fuels tax, the annual flat rate shall increase or decrease based on one hundred fifty dollars at a sixteen-cent-per-gallon special fuels tax rate rounded to the nearest dollar, and the variable rate shall be based on eighty percent of the per-gallon special fuels tax in effect.

B. The owner or operator of a motor vehicle having a gross weight of more than ten thousand pounds and which is propelled by an internal combustion engine or motor capable of using liquefied petroleum gas or compressed natural gas, shall pay the special fuels tax by paying the rate of eighty percent of the special fuels tax rate in effect on all such fuel so used. The aggregate annual tax paid by such person shall not be less than eighty percent of one hundred fifty dollars based on a sixteen-cent-per-gallon special fuels tax per motor vehicle. For the purpose of determining the amount of the tax and enforcing this Subsection, the number of gallons of liquefied petroleum gas or compressed natural gas used the previous year on the highways of this state shall be determined by using the following schedule for calculating the number of miles per gallon:

TYPE OF VEHICLE	**MILES PER GALLON**
1. Any motor vehicle with two axles which has a gross license tag weight classification of 10,000 pounds to 20,000 pounds	9
2. Any motor vehicle with two axles which has a gross license tag weight classification in excess of 20,000 pounds	7
3. Any motor vehicle or motor vehicles with a combination of three axles	6
4. Any motor vehicle or motor vehicles with a combination of four axles	5
5. Any motor vehicle or motor vehicles with a combination of five axles	4

C. The full amount of taxes collected pursuant to this Section shall be credited to the Bond Security and Redemption Fund. After a sufficient amount is allocated from that fund to pay all obligations secured by the full faith and credit of the state which become due and payable within any fiscal year, the treasurer shall pay one-half of the amount of taxes collected pursuant to this Section into a special fund, which is hereby created in the state treasury and designated as the Louisiana Highway, Flood Control, and Drainage Priority Fund. The treasurer shall credit the remainder of taxes collected pursuant to this Section into the state general fund.

D. The monies in said fund shall be used solely to fund projects of the Highway Priority Program (R.S. 48:228, et seq.), the Parish Transportation Fund (R.S. 48:751, et seq.), the Statewide Flood-Control Program (R.S. 38:90.1, et seq.), and the Parish Bridge Replacement Program. Any surplus remaining to the credit of the fund on June thirtieth of each year, after all appropriations of the preceding fiscal year have been made, shall remain to the credit of the fund. Such monies shall be expended solely from year to year as appropriated by the legislature for the purposes of the Highway Priority Program, the Parish Transportation Fund, and the Statewide Flood-Control Program, and no part thereof shall revert to the general fund. Any amounts earned through investment of the monies in the fund shall remain to the credit of the fund and shall not revert to the state general fund.

E. Nothing in this Section shall be construed to apply to nonresident private carriers of passengers temporarily located in or operated on the highways of this state for a period of not more than thirty days; nor shall this Section apply to motor vehicles which are owned and operated by persons who have furnished a bond as required by R.S. 47:807(C) and which are domiciled in a state other than Louisiana.

F. The owner of any school bus, including school board owned buses, which transports Louisiana students and which is propelled by an internal combustion engine or motor capable of using liquefied petroleum gas or compressed natural gas as fuel shall pay the special fuels tax by paying an annual flat rate in the amount of one-half of the lesser of the regular flat rate or one-half of the variable rate as determined in Subsection A of this Section. In the event of an increase or reduction of the sixteen cent per gallon special fuels tax, the annual flat rate shall be based on one-half of the flat rate levied under the provisions of Subsection A of this Section.

G. In order to enforce the provisions of this Section as applicable to motor vehicles which are propelled by an internal combustion engine or motor capable of using liquefied petroleum gas or compressed natural gas, no such vehicle shall be issued a motor vehicle inspection certificate, as required by R.S. 32:1304, without a current decal as evidence of tax payment.

§802.4. Louisiana Truck Center, authorization

The secretary of the Department of Revenue shall provide the personnel and equipment required to fully implement the provisions of R.S. 32:390.23 as it relates to taxes and fees assessed and collected by this department.

§803. Collection and payment of tax

A.(1) The tax levied hereunder shall be collected or paid by suppliers on all special fuels sold or delivered by them, except the following:

(a) Those fuels required to be indelibly dyed and chemically marked in accordance with regulations issued by the secretary of the Treasury of the United States under 26 U.S.C. 4082 and pursuant to the regulations of the United States Environmental Protection Agency.

(b) Those fuels sold and delivered in bulk to state agencies, parish and municipal governments, and other political subdivisions of the state of Louisiana who have obtained a certificate from the Department of Revenue, and which fuels are to be used for purposes other than in a vehicle licensed or required to be licensed for highway use.

(c) Liquefied petroleum gas and compressed natural gas.

(2) The tax shall be collected and paid by suppliers on dyed fuel authorized for highway use by certain vehicles under 26 U.S.C. 4082 and the regulations adopted thereunder.

(3) Undyed special fuels when sold or delivered to a user for a purpose other than a vehicle licensed or required to be licensed for highway use, may be subject to a refund or credit under R.S. 47:802.1.

B. The tax levied hereunder shall be paid by any interstate user on special fuels imported into this state by him.

C. The tax levied hereunder shall be paid by any person who uses special fuels in this state on which the tax levied hereunder has not been paid.

§803.1. Cooperative agreements between states for collection and payment of taxes

A. In lieu of the requirements of this Part with respect to licensing, bonding, reporting, and auditing, the secretary may, when in the interest of the state and its residents, enter into the International Fuel Tax Agreement or other cooperative compacts or agreements with another state or other states or provinces to permit base state or base jurisdiction licensing of persons importing motor fuel or diesel fuel into this state and liable for the tax levied by this Part, and to provide for the cooperation and assistance among the member states and provinces in the administration and collection of motor fuels consumption or use taxes.

B. The secretary is authorized to enter into such agreement on behalf of the state of Louisiana; but such agreement, arrangement, declaration, or amendment shall not be effective until stated in writing and filed with the secretary.

C. An agreement may provide:

(1) For determining the base state for users, user records requirements, audit procedures, exchange of information, and persons eligible for tax licensing;

(2) For defining qualified motor vehicles;

(3) For determining if bonding is required;

(4) For specifying reporting requirements and periods including defining uniform penalty and interest rates for late reporting;

(5) For determining methods for collecting and forwarding of motor fuel taxes and penalties to another jurisdiction; and

(6) For any other provisions as will facilitate the administration of the agreement.

D. The secretary may, as required by terms of the agreement, forward to officers of another state any information in the secretary's possession relative to the manufacture, receipt, sale, use, transportation, or shipment of motor fuels by any person. The secretary may disclose to officers of another state the location of offices, motor vehicles, and other real and personal property of users of motor fuels.

E. The agreement may provide for each state to audit the records of persons based in the state to determine if the motor fuel taxes due each state are properly reported and paid. Each state shall forward the finding of the audits performed on persons based in the state to each state in which the person has taxable use of motor fuels. For persons not based in this state and who have taxable use of motor fuels in this state, the secretary may serve the audit findings received from another state in the form of a proposed assessment of the person as though an audit was conducted by the secretary.

F. Any agreement entered into under this Section shall not preclude the secretary from auditing the records of any person covered by the provisions of this Part.

G. The secretary may promulgate rules and regulations for the administration and enforcement of any such agreement.

H. The legal remedies and procedures for any person served with an order or proposed assessment under this Part shall be as prescribed by law.

I. Persons licensed in accordance with the provisions of such agreement shall be considered fully licensed in Louisiana as a Motor Fuel/Diesel Fuel Importer For Use.

§803.2. Dyed special fuel; taxable use by fire trucks

A. Notwithstanding any other law to the contrary, a fire department/district may purchase dyed fuel for use in the operation of fire trucks as defined in R.S. 47:801(5) when all of the following apply:

(1) The fire department/district or a fire company within a fire department or a fire district does not have access to bulk storage for tax-paid special fuels to be used in their fire trucks.

(2) It has been certified to the Department of Revenue that undyed special fuel is regularly not available within the respective fire district.

(3) The only special fuel available within the respective fire district for use in the fire trucks is dyed special fuel.

B. Any fire department/district meeting the qualifications in Subsection A that purchases dyed fuel for highway use shall remit the tax due under this Part directly to the Department of Revenue.

C. Prior to purchasing dyed special fuel to be used for taxable purposes, fire departments/districts that meet the criteria established in Subsection A must obtain a direct payment number, hereinafter referred to as an "FD Number".

D. Upon application to the department for an FD Number, the department shall review the application and shall make a visual inspection of the respective area to determine that the qualifications have been met.

E. If the qualifications are not met, the application for an FD Number will be denied.

F. If the qualifications are met, the department shall issue an FD Number and provide a certificate to the applicant that will allow for the purchase of dyed special fuel to be used for the operation of the fire trucks only. A copy of this certificate must also be maintained in the fire truck.

G. Once an FD Number is issued, the fire department/district shall maintain a complete record of all dyed special fuel purchased for use in the fire trucks. The records shall include a serially numbered invoice issued in not less than duplicate counterparts on which shall be the name and address of the supplier, dealer, or user from whom the fuel is purchased, the date of purchase, the number of gallons, the kind of special fuel delivered, the mileage of the vehicle to be evidenced by the odometer, and the state highway license number or unit number of the fire truck. The invoice shall reflect that the tax was not paid at the time of purchase. One counterpart of the invoice shall be kept by the dealer as part of his record. Another counterpart shall be delivered to the operator of the fire truck and carried in the cab compartment of the fire truck.

H. The holder of the FD Number shall on or before the twentieth day of each calendar month, file with the secretary, on forms prescribed by him, a report accounting for the dyed special fuel purchased during the preceding calendar month for the operation of the fire trucks and remit the applicable state special fuels tax.

I. The department shall review the procedures and practices, records and reports of the holder of the FD Number.

J. The FD Number issued by the department under this Section may be revoked by the secretary at any time if the holder fails to meet the qualifications provided for in this Section.

K. Purchase of dyed special fuel for taxable use in vehicles other than fire trucks as provided herein, failure to maintain the records as required or to timely remit the applicable tax will result in the withdrawal of the FD Number and shall subject the noncomplying fire department/district to the provisions of this Chapter.

§804. Separate storage tanks for taxable special fuels and for tax-free storage

A. All users, dealers, and suppliers of special fuels who maintain their own storage tanks in this state except users of liquefied petroleum gas or compressed natural gas as fuel, are required to have a separate storage tank for taxable special fuels, which tanks are to be physically separate and apart from any other tanks or fueling units, and to indicate it by placing thereon or nearby in a conspicuous place the words "Tax-Paid Fuels" in letters not less than five inches high. Suppliers are required to collect the tax on all special fuels delivered into such tanks.

B. All suppliers, dealers, and users who have facilities for storing special fuels other than liquefied petroleum gas or compressed natural gas not intended for motor vehicle use and which facilities are suitable to fuel motor vehicles using special fuels other than liquefied petroleum gas or compressed natural gas, shall mark such storage facilities with the words "Dyed Fuel - Not for Motor Vehicle Use" in letters not less than five inches high, and suppliers may deliver into such storage without collecting the tax levied hereunder. If such tanks are not provided then all special fuels delivered by suppliers into storage tanks suitable for fueling motor vehicles become taxable.

C. Any special fuel other than liquefied petroleum gas or compressed natural gas which is not intended for motor vehicle use and is stored in separate facilities as provided in Subsection B of this Section must be indelibly dyed and chemically marked in accordance with regulations issued by the secretary of the Treasury of the United States under 26 U.S.C. 4082.

§805. Bulk sales

Except in the case of tax-paid deliveries into the fuel supply tanks of motor vehicles, it shall be unlawful to make bulk sales of special fuels to any user or dealer who is not licensed as such, when the supplier knows, or reasonably should know the purchaser is not a licensed user or dealer. When a user or dealer's license has been revoked and written notice of the revocation has been received by the supplier from the secretary, it shall be unlawful for the supplier to make bulk sales or deliveries to such user or dealer of special fuels on which the tax has not been paid unless delivery is into facilities which are not suitable for fueling motor vehicles.

§806. Records required; invoices; false records a violation

A.(1) Every supplier, dealer, or user licensed, or required by law to secure a license, to sell, deliver, or to use special fuels, shall keep a complete record of all special fuels purchased or received and sold, delivered, or used by them showing for each purchase, receipt, sale, delivery, or use:

(a) The date;

(b) The name and address of the seller or of the person from whom received, and if sold or delivered in bulk quantities, the name and address of the purchaser or recipient;

(c) An accurate record of the number of gallons of each product used for taxable purposes with quantities measured by a meter; and

(d) Inventories of special fuels on hand at the end of each month except for those special fuels in a tank marked "Not for Motor Vehicle Use."

(2) These records shall be kept until the taxes to which they relate have prescribed, and shall be open to inspection by the secretary of revenue or his authorized representative upon request.

B.(1) For each bulk sale and delivery of special fuels, whether or not subject to tax hereunder, the record required shall include an invoice with serial numbers printed thereon showing the name and address of both the supplier and purchaser, and the complete information set out hereinabove for each such sale, one counterpart of which shall be delivered to the purchaser and another counterpart kept by the supplier or dealer for the period of time and purpose above provided.

(2)(a) For each delivery of special fuels into the fuel supply tank of a motor vehicle, the required record shall include a serially numbered invoice issued in not less than duplicate counterparts on which shall be printed, or stamped with a rubber stamp the name and address of the supplier, dealer, or user making such delivery and on which shall be shown, in spaces to be provided on such invoice, the date of delivery, the number of gallons, the kind of special fuels delivered, the total mileage of the motor vehicle into which delivered, such mileage to be evidenced by odometer or hub meter reading or in the case of interstate passenger buses registered with the Interstate Commerce Commission by such documentation acceptable by the secretary, and the state highway license number or unit number of said motor vehicle. The invoice shall reflect that the tax has been paid or accounted for on each of the products delivered. One counterpart of the invoice shall be kept by the supplier, dealer, or user making such delivery as a part of his record and for the period of time and purposes hereinabove provided. Another counterpart shall be delivered to the operator of the motor vehicle and carried in the cab compartment of the motor vehicle for inspection by the secretary or his representatives, until the fuel it covers has been consumed.

(b) With respect to users who purchase in bulk, for each delivery of special fuels into the fuel supply tank of a motor vehicle the required record shall include a serially numbered invoice issued in not less than duplicate counterparts on which shall be typed, handwritten, printed, or stamped with a rubber stamp the name and address of the supplier, dealer, or user making such delivery and on which shall be shown, in spaces to be provided on such invoice, the date of delivery, the number of gallons, the kind of special fuels delivered, the total mileage of the motor vehicle into which delivered, such mileage to be evidenced by odometer or hub meter reading or in the case of interstate passenger buses registered with the Interstate Commerce Commission by such documentation acceptable by the secretary, and the state highway license number or unit number of said motor vehicle. The invoice shall reflect that the tax has been paid or accounted for on each of the products delivered. One counterpart of the invoice shall be kept by the supplier, dealer, or user making such delivery as a part of his record and for the period of time and purposes hereinabove provided. Another counterpart shall be delivered to the operator of the

motor vehicle and carried in the cab compartment of the motor vehicle for inspection by the secretary or his representatives, until the fuel it covers has been consumed.

(3) In lieu of the invoices required herein, a computer record generated by a cardlock or meter system may be used for purposes of substantiating a claim for a tax refund otherwise provided by law which is submitted by a Louisiana bonded interstate user or a user licensed under the provisions of the International Fuel Tax Agreement to the Department of Revenue for special fuels purchased or received, and sold, delivered or used, where such special fuels were purchased or received from an attended or unattended location through use of a cardlock or meter system maintained and controlled by a supplier licensed for the tax free purchase of special fuels, provided that such records contain the information required in Subsection A of this Section as applicable, and notwithstanding that the computer record may contain such information for multiple special fuels transactions.

C.(1) The provisions of this Section shall not apply to the owner or operator of a private passenger motor vehicle or truck having a gross weight of six thousand pounds or less which is propelled by an internal combustion engine or motor which uses a fuel taxed under the provisions of this Part other than liquefied petroleum gas or compressed natural gas and which is licensed, or required to be licensed, for highway use.

(2) The provisions of this Section shall not apply to the owner or operator of a motor vehicle, truck, or truck-tractor which is owned and operated exclusively for commercial use within this state by a business domiciled within this state, which is propelled by an internal combustion engine or motor which uses a fuel taxed under the provisions of this Part other than liquefied petroleum gas or compressed natural gas, and which is licensed, or required to be licensed, for highway use.

D. On all deliveries of special fuels to a user by common or contract carriers, the shipper shall stamp on the manifest or bill of lading in letters not less than one-quarter inch high "Tax Paid" whenever the tax levied hereunder has been paid, and "Not For Motor Vehicle Use" whenever the tax levied hereunder has not been paid. It shall be a violation of this Part for any driver for a carrier to deliver special fuels covered by a manifest or bill of lading stamped "Not For Motor Vehicle Use" into a tank marked "Tax-Paid Special Fuels".

E. The willful issuance of any invoice, bill of sale or receipt which is false, untrue or incorrect in any material particular or the alteration, or changing except for errors, or forging any such invoice, bill of sale or receipt, or any duplicate of any such receipt pertaining to special fuels, shall constitute a violation of this Part.

F.(1) The provisions of this Section shall not apply to the owner or operator of a motor vehicle having a gross weight of ten thousand pounds or less which is propelled by an internal combustion engine or motor which uses liquefied petroleum gas or compressed natural gas as fuel if the owner or operator elects to pay the flat rate available under R.S. 47:802.3.

(2) If the owner or operator of a vehicle described in Paragraph (1) elects to pay the variable rate available under R.S. 47:802.3, said owner or operator shall maintain records to verify total mileage of that vehicle in order to comply with the provisions of R.S. 47:802.3. The secretary shall provide for a procedure for such recordkeeping.

G. The owner or operator of a motor vehicle having a gross weight in excess of ten thousand pounds which is propelled by an internal combustion engine or motor which uses liquefied petroleum gas or compressed natural gas as fuel shall maintain records to verify total mileage of that vehicle in order to comply with the provisions of R.S. 47:802.3(B). The secretary shall provide for a procedure for such recordkeeping.

H. In lieu of the invoices required herein, a computer-generated record may be used for the purposes of substantiating the same information required on the invoices for which substituted.

§806.1. Records and reports required by installers of liquefied petroleum gas and compressed natural gas carburetion equipment

Any person who installs or alters liquefied petroleum gas or compressed natural gas carburetion equipment shall file with the secretary of the Department of Revenue a written report, on forms prescribed by the secretary, whenever he installs or alters such equipment. This report shall be filed not later than fifteen days after the installation or alteration of the equipment. This person shall maintain records of every installation or alteration for a period of three years, which records shall be open to inspection at all reasonable times by the secretary or his authorized representative.

§807. Licenses and bond for suppliers, dealers, and users

A. No person shall commence operations as a supplier, dealer, or user without first procuring a license for that purpose from the secretary, which license shall be issued without charge and remain in effect until revoked as hereinafter provided.

B. Each application for a license as a supplier, dealer, or user of special fuels and each such license shall have as a condition that the applicant and holder shall comply with the provisions of this Part. Each application for a license as a dealer or user and each such license shall have as a further condition that the applicant and holder shall not deliver or permit delivery into the fuel supply tanks of motor vehicles of any special fuels which have been purchased tax free by the applicant or holder, except for liquefied petroleum gas or compressed natural gas which is delivered to a user under the provisions of R.S. 47:802.3. A taxable use of special fuels purchased tax free by an applicant for, or a holder of, a dealer or user's license, in addition to the penal provisions hereafter prescribed, shall in the discretion of the secretary forfeit the right of the applicant or holder to purchase special fuels tax free for a period of not more than one year from the date of such offense.

C.(1) Each application submitted by a supplier or interstate user for a license shall be accompanied by a surety bond of a surety company authorized to do business in this state, in

favor of the secretary of the Department of Revenue and satisfactory to him and in an amount to be fixed by him of not less than two thousand dollars nor more than eighty thousand dollars for a supplier and not less than one thousand dollars nor more than forty thousand dollars for an interstate user, guaranteeing the payment of any and all taxes, penalties, interest, attorney fees, and costs levied by, accrued, or accruing under this Part. However, the secretary is authorized to waive the furnishing of this surety bond by any supplier who has and agrees to maintain assets in Louisiana of a net value of not less than one and one-fourth times the amount of the bond which would otherwise be required, who has had a bond on file with the department for a period of not less than three years, and who has not been delinquent in remitting taxes accrued or accruing under this Part during the three-year period immediately preceding application by the supplier for waiver of the bond. If any supplier whose bond has been waived by the secretary becomes delinquent in remitting taxes due under this Part, the secretary may require that such supplier furnish a bond in the amount required in this Subsection, and such supplier shall not be eligible for a waiver of a bond for a period of three years thereafter. Any violation of this Part shall be cause for revocation of any license issued hereunder.

D. A supplier may operate under his supplier's license as a dealer or as a user without securing a separate license but he shall be subject to all other conditions, requirements, and liabilities imposed by this Part upon a dealer or a user.

A licensed dealer may use special fuels in motor vehicles owned or operated by him without securing a separate license as a user, subject to all conditions, requirements, and liabilities imposed herein upon a user.

§807.1. Application, payment of tax, decals; penalties

A. Any person who wishes to operate, upon the highways of this state, a motor vehicle which uses or is capable of using liquefied petroleum gas or compressed natural gas as motor fuel shall make application, on or before July thirty-first of each year, to the secretary of the Department of Revenue for a permit to operate the motor vehicle on the highways of this state. The application shall be made on a form furnished and prescribed by the secretary and shall contain any information which the secretary may reasonably require.

B. The applicant shall pay to the secretary, at the time that application for a permit is made, the tax levied under R.S. 47:802.3. Upon payment of the tax and approval of the application, the secretary shall issue to the taxpayer a permit to operate the motor vehicle upon the highways of this state for the period from July first to June thirtieth. If a person makes application after July thirty-first, the amount of the tax due shall be reduced by one-twelfth for each month which has elapsed since July first.

C. Any person who operates more than one motor vehicle using or capable of using liquefied petroleum gas or compressed natural gas shall pay the tax and obtain a permit for each motor vehicle which he wishes to operate upon the highways of this state.

D. Upon issuance of a permit, the secretary shall issue to the taxpayer a decal for each motor vehicle, which shall be in a form prescribed by the secretary. Each decal shall be affixed to the motor vehicle in the manner prescribed by the secretary so that the decal is clearly visible.

E. The secretary shall provide a procedure for the payment of the tax and the issuance on an annual basis.

F. Any person who sells or transfers title of a motor vehicle which is propelled by an internal combustion engine or motor capable of using liquefied petroleum gas or compressed natural gas as fuel shall transfer the permit at the time of the transfer of the vehicle. The secretary shall prescribe a procedure for such transfer of permits and the Department of Revenue shall be notified at the time of any such transfer.

G. It shall be a violation of this Part for any person to operate or cause to be operated a motor vehicle upon the highways of this state which is subject to the requirements of this Part upon which the tax has not been paid or for which no permit has been issued or to which no decal has been attached. In addition to all other liability, such person shall be liable for a penalty of twenty-five dollars for the first violation and a penalty of seventy-five dollars for each subsequent violation.

§808. Reports; deductions in computing tax; revocation of license; flat rate accounts

A.(1) Every supplier shall, on or before the twentieth day of each calendar month, file with the secretary, on forms prescribed by him, a report accounting for the special fuels handled during the preceding month, showing:

(a) Total quantity of each kind of special fuels purchased and received from sources within this state and total quantity received from sources outside of this state.

(b) Total quantities of special fuels sold or delivered to dealers and users upon which the tax levied hereunder was collected and total quantity sold and delivered without collecting the tax levied hereunder.

(c) Quantities of special fuels sold and delivered into the fuel supply tanks of motor vehicles.

(d) Quantities of special fuels delivered into fuel supply tanks of motor vehicles owned, leased, or operated by the supplier and quantities used by him for other purposes.

(e) Quantities of special fuels lost by fire or other accident.

(f) Quantities of special fuels lost by shrinkage or evaporation; and

(g) Quantities of special fuels on hand at the beginning and at the end of the month covered by the report.

(2) With the report the supplier shall remit the total amount of the tax due.

B. All interstate users who have furnished a surety bond required under R.S. 47:807 shall file a quarterly report with the secretary of the Department of Revenue. The quarters shall end on March thirty-first, June thirtieth, September thirtieth, and December thirty-first of each year, and the report shall be mailed together with payment of the tax due by the twenty-fifth day of the month following the end of each quarter. Reporting forms shall be prescribed by the secretary of the Department of Revenue and shall show itemized quantities of special fuels purchased along with the fuels purchased and used in all other states and the miles traveled in each state, together with any other information requested by the secretary.

C. In computing the tax due, a supplier may make a deduction in the amount of three percent of the net taxable gallons after deducting approved refunds sold during the preceding calendar month as compensation for collecting and remitting the tax, and as an allowance for evaporation.

D. The license of a supplier, dealer, or user may be revoked by the secretary for violation of any of the provisions of this Part after a hearing as provided by R.S. 47:1544 through 1547. Should his license be revoked after such hearing, any supplier, dealer, or user may bring an action against the secretary in the district court of his domicile within fifteen days of the date of revocation to determine whether or not said supplier, dealer, or user has in fact violated any of the provisions of this Part. If the court determines that the provisions of the law have been violated by said supplier, dealer, or user, it shall maintain the secretary's action in revoking said license.

E. Special fuels, when sold, used, consumed, or otherwise acquired and measured in liters rather than gallons, shall be converted to gallons for tax reporting purposes by dividing the liters by the metric conversion factor of 3.7854, the accepted metric system equivalent of one U.S. gallon.

F. The provisions of this Section shall not apply to suppliers of or users who purchase in bulk liquefied petroleum gas or compressed natural gas as a motor fuel.

G. Repealed by Acts 1995, No. 603,§ 2, eff. Jan. 1, 1996.

§809. Power to stop and investigate vehicles; assessment and collection

A. In order to enforce the provisions of this Part, the secretary or his authorized representative or any weights and standards police officer is empowered to stop any motor vehicle which appears to be operating with special fuels for the purpose of examining the invoices and for such other investigative purposes reasonably necessary to determine whether the taxes imposed by this Part have been paid, or whether the vehicle is being operated in compliance with the provisions of this Part.

B. If, after such examination or investigation, it is determined by the secretary or his authorized representative or any weights and standards police officer that the tax imposed by this Part has not been paid with respect to the fuels being used in said vehicle, the secretary or his

representative, or any weights and standards police officer shall immediately assess the tax due together with the penalty hereinafter provided, to the owner of said vehicle, and give said owner written notice of the assessment by handing it to the driver of the vehicle.

C. The secretary or his representative or any weights and standards police officer is hereby empowered to impound any vehicle found to be operating in violation of this Part or any vehicle for which inspection has been refused until such time as inspection has been completed or any tax and penalties assessed as provided herein have been paid.

D. Upon issuance of the written notice of assessment in the form of a violation ticket by the secretary or his representative or any weights and standards police officer, the procedure for collection and payment of the penalty assessed shall be the same as that provided for the payment and collection of penalty in R.S. 32:389(C).

§810. Prima facie presumptions

A. Any supplier, dealer, or user who shall fail to keep the records, issue the invoices, or file the reports required by this Part, shall be prima facie presumed to have sold, delivered, or used for taxable purposes all special fuels shown by a duly verified audit by the secretary, or any authorized representative, to have been delivered to such supplier, dealer, or user and unaccounted for at each place of business or place of storage from which special fuels are sold, delivered, or used for any taxable purposes.

B. The secretary is hereby authorized to fix or establish the amount of taxes, penalties, and interest due the state of Louisiana from such records of deliveries or from any records or information available to him, and, if the tax claim as developed from such procedure is not paid, such claim, and any audit made by the secretary, or an authorized representative, or any report filed by such supplier, dealer, or user, shall be admissible in evidence in any suit or judicial proceedings filed by the secretary and shall be prima facie evidence of the correctness of said claim or audit; provided that the prima facie presumption of the correctness of the claim may be overcome by evidence adduced by the supplier, dealer, or user.

§811. Export of tax paid special fuels; tax refunds or credit; interstate users

A. An interstate user of special fuels who is a bonded user of special fuels in the state of Louisiana may receive a tax refund or tax credit on that amount of tax paid on special fuels purchased in this state which exceeds the amount of fuel that would be consumed, based on the total motor vehicle mileage in the state. An interstate user of special fuels must be bonded and file reports in all states in which he operates in accordance with the requirements of those states.

B. An interstate user may determine his average number of miles of motor vehicle travel per gallon of fuel by dividing the total miles traveled by the number of gallons consumed in the entire operation of his vehicles. If an interstate user cannot furnish satisfactory evidence of his average number of miles per gallon of fuel, the Department of Revenue shall determine the rate

to be applied to such user, which in no event shall exceed an average of five miles per gallon of fuel.

§812. Violations; cargo tank to carburetor connection; operation without speedometer or hub meter; operation without name and address on trucks; invoice

A. It shall be a violation of the Special Fuels Tax Law for a motor vehicle to operate within the state of Louisiana:

(1) When transporting special fuels in any cargo tank from which special fuels are sold or delivered that is connected by pipe, tube, valve, or otherwise with the carburetor or with the fuel supply tank feeding the carburetor of the motor vehicle transporting said products.

(2) Without an odometer or hub meter which is kept at all times in good operating condition to correctly measure and register the miles traveled by such vehicle. Interstate passenger buses registered with the Interstate Commerce Commission not so equipped shall not be in violation of this Part if a record of miles traveled is maintained on a form or report approved by the secretary of the Department of Revenue and is carried in the vehicle at all times.

(3) Without the true owner's name and address or adequate identification, or in the case of an interstate motor carrier under whose authority the vehicle is operated and who is registered with the Interstate Commerce Commission, the name or trade name only, on the cab in letters not less than two inches high. The name and address of the owner must be legible at a distance of twenty-five feet. Pickup trucks or any truck of manufacturer's rating carrying capacity of two thousand pounds or less is excluded from this Subsection, unless the truck is a public for hire truck used primarily for transporting cargo.

(4) Unless the person operating the vehicle has in his possession an invoice for the fuel which meets the requirements of R.S. 47:806.

(5) In addition to any other penalties which may be incurred, there is hereby levied a specific penalty of fifty dollars for each violation of the provisions of this Subsection. This penalty shall be assessed by the secretary of the Department of Revenue or his representative or the weights and standards police officer and shall be collected in the same manner as is provided for the collection of tax in R.S. 47:809.

B.(1) It shall be unlawful for any person to operate motor vehicles registered for or required to be registered for highway use with undyed special fuel that has not been taxed or with special fuel which contains any evidence of the dye or chemical marker as required pursuant to the regulations promulgated under 26 U.S.C. 4082. Those vehicles allowed to use dyed fuel on the highway under 26 U.S.C. 4082 or regulations adopted thereunder, but which are subject to the state tax, shall not be considered in violation of this Subpart.

(2) No supplier or dealer of special fuels or any other person shall sell or offer to sell special fuels that contain any evidence of the dye or chemical marker unless the fuel dispensing device is

clearly marked with a notice that the fuel is dyed or chemically marked. Any dyed fuel that is sold or held for sale by any person for any use that is not a nontaxable use; any dyed fuel held for use or used by any person for a use other than a nontaxable use and such person knew, or had reason to know, that such fuel was dyed; or any person who willfully alters, or attempts to alter, the strength or composition of any dye or marker in any dyed fuel is subject to a penalty.

(3) Any person violating any provision of this Subsection is subject to a penalty in the amount of ten dollars for every gallon of fuel involved or one thousand dollars whichever is greater. The penalty increases with subsequent violations by multiplying the penalty amount by the number of prior violations. If the penalty is imposed on any business entity, each officer, employee, or agent of the entity who willfully participated in any act giving rise to the penalty is jointly and severally liable with the entity for the penalty. This penalty shall be assessed and collected in the same manner as is provided for in Paragraph (5) of Subsection A of this Section.

(4) Any authorized representative of the secretary of the Department of Revenue or officer authorized under R.S. 47:809 who has reasonable grounds to suspect a violation of this Subsection may inspect the fuel in the fuel supply tank of any motor vehicle or the fuel storage facilities and dispensing devices of any special fuels supplier, dealer, and user to determine compliance.

C. All specific penalties collected by the Department of Public Safety and Corrections or the Department of Transportation and Development in accordance with this Part shall be paid to the secretary of the Department of Public Safety and Corrections or the Department of Transportation and Development, whichever agency issued the violation ticket, who shall pay said penalties into the state treasury on or before the twenty-fifth day of each month following their collection and, in accordance with Article VII, Section 9 of the Constitution of Louisiana, such funds shall be credited to the Bond Security and Redemption Fund.

§813. Violations declared misdemeanors

Any person who shall violate any of the provisions of this Part shall be guilty of a misdemeanor, and, upon conviction, be fined in an amount not exceeding one thousand dollars ($1,000.00), or imprisonment not to exceed two (2) years, or both, at the discretion of the court.

§814. Administration; rules and regulations; costs of administration; disposition of monies collected

A. The administration of this Part shall be by the secretary of the Department of Revenue who shall have authority to adopt and enforce rules and regulations not inconsistent with this Part of this Chapter 7 necessary and convenient for the enforcement of the provisions of this Part and collection of the taxes, penalties, and interest in this Part provided.

B. In the case of farmers who operate trucks licensed for farm use, which trucks use undyed special fuels other than liquefied petroleum gas and compressed natural gas for their operation, the secretary shall, when requested, reach an agreement with such farmers wherein the amount of

fuel used in each truck shall be determined by an estimate and the tax paid each month on the basis of said estimate. In no case is the secretary authorized to estimate the number of gallons used by any farmer at less than seventy-five gallons per month per vehicle. This provision applies only to farmers operating vehicles and equipment on the same special fuels except liquefied petroleum gas and compressed natural gas for both taxable and nontaxable purposes, and in such case the farmer shall be relieved of the necessity of compliance with the provisions of R.S. 47:804, 806, and 812(A)(4) in reference to such use.

§815. Special fuels dispensing machines; requirements

Each tank through which a special fuel is dispensed shall have clearly displayed on it only one sign which refers to taxes and it shall state "ABOVE PRICE INCLUDES ALL LOCAL, STATE, AND FEDERAL TAXES."

§815.1. Special fuel; advertised price; requirement

The advertised price of special fuels dispensed by a retail dealer shall include all taxes levied and collected on such fuel. Any advertisement of a price shall also clearly state whether the price is a "cash price" or a "credit price".

Transportation Infrastructure Model For Economic Development
R.S. 47:820.1 to 47:820.6*
(As amended through the 1999 Regular Session)

§820.1. Imposition of tax

A. There is hereby levied a tax of four cents per gallon on all gasoline and motor fuels as presently taxed by the provisions of Part I of this Chapter and on special fuels as presently taxed by the provisions of Part V of this Chapter. The tax imposed herein shall be in addition to any other tax imposed on gasoline and motor fuels and special fuels.

B. The tax imposed herein shall be levied, collected, and administered in the same manner as provided in this Chapter for the taxes levied on gasoline and motor fuels and on special fuels. The secretary may promulgate rules and regulations as necessary for the administration of this Part.

* Only R.S. 47:820.1 is reproduced here. R.S. 47:820.2 to 820.6 deal with the distribution of the proceeds of the tax imposed by R.S. 47:820.1.

Compressed Natural Gas Regulations

Published by the Louisiana Department of Natural Resources, Office of Conservation, Pipeline Division. A link to the latest version can be found on the Department's internet web site. For additional information, contact the Pipeline Division, P.O. Box 94275, Baton Rouge, LA 70804-9275; telephone 225-342-5505.

Louisiana Administrative Code
Title 43
NATURAL RESOURCES
Part XI. Office of Conservation—Pipeline Division
Subpart 5. Compressed Natural Gas
Chapter 25. Compressed Natural Gas

§2501. Scope

A. This Chapter applies to the design and installation of compressed natural gas (CNG) engine fuel systems on vehicles of all types and CNG systems used for compression, storage, sale, transportation, delivery, or distribution of CNG for use in motor vehicles.

B. This Chapter also applies to all CNG mobile fuel systems used for filling vehicles.

C. This Chapter does not extend to the design and installation of any CNG system on ships, barges, sailboats, or other types of watercraft. Such installation is subject to the American Boat and Yacht Council (ABYCO) and any other applicable standards.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:60 (January 1992).

§2503. Retroactivity

A. Unless otherwise stated, the regulations for compressed natural gas are not retroactive. Any installation of a CNG system must meet the requirements of the rules and regulations outlined herein.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:60 (January 1992).

§2505. Definitions

A. The following words and terms, when used in this Chapter, shall have the following meanings, unless the context clearly indicates otherwise.

Approved - acceptable to the commissioner of conservation.

Cascade Storage System - storage of CNG in multiple cylinders.

CNG Cylinder - a cylinder or other container designed for use or used as part of a CNG system.

CNG Facility - a nonvehicular CNG system.

CNG System - a system of safety devices, cylinders, piping, fittings, valves, compressors, regulators, gauges, relief devices, vents, installation fixtures, and other CNG equipment intended for use or used in any building or public place by the general public or in conjunction with a motor vehicle fueled by CNG and any system of equipment designed to be used or used in the compression, sale, storage, transportation for delivery, or distribution of CNG in portable CNG cylinders, but does not include a natural gas pipeline located upstream of the inlet of the compressor.

Commissioner - the commissioner of Conservation of the state of Louisiana.

Compressed Natural Gas (CNG) - natural gas which is a mixture of hydrocarbon gases and vapors, consisting principally of methane (CH4) in gaseous form that is compressed and used, stored, sold, transported, or distributed for use by or through a CNG system.

CNG Cargo Tank - a container in accordance with American Society of Mechanical Engineers (ASME) or Department of Transportation (DOT) specifications and used to transport CNG for delivery.

Cylinder Service Valve - a hand-wheel-operated valve connected directly to a CNG cylinder.

Dispensing Station - a CNG installation that dispenses CNG from any source by any means into fuel supply cylinders installed on vehicles or into portable cylinders.

Filled by Pressure - a method of transferring CNG into cylinders by using pressure differential.

Fuel Supply Cylinder - a cylinder mounted in a vehicle for storage of CNG as fuel supply to an internal combustion engine.

Manifold - the assembly of piping and fittings used for interconnecting cylinders.

Mobile Fuel System - any CNG system installed on a vehicle designed to furnish CNG to any apparatus that uses or consumes CNG.

Motor Vehicle - a self-propelled vehicle licensed for highway use or used on a public highway.

Outlet - a site operated by a certified CNG facility at which the business conducted materially duplicates the operations for which the facility is initially granted a

certificate. Elements to be considered in determining the existence of an outlet include, but are not limited to, the following:

1. storage of CNG on the site;

2. sale or distribution of CNG from the site;

3. supervision of employees at the site;

4. proximity of the site to other outlets;

5. communication between the site and other outlets; and

6. nature of activities.

Person - an individual, sole proprietor, partnership, joint venture, corporation, or other entity.

Point of Transfer - the point where the fueling connection is made.

Pressure Relief Valve - a device designed to prevent overpressure of a normally charged cylinder.

Settled Pressure - the pressure in a container at 70 degrees F, which cannot exceed the marked service or design pressure of the cylinder.

Transport - any vehicle or combination of vehicles and CNG cylinders designed or adapted for use or used principally as a means of moving or delivering CNG from one place to another. This shall include, but not be limited to, any truck, trailer, semitrailer, cargo tank, or other vehicle used in the distribution of CNG.

Ultimate Consumer - the individual controlling CNG immediately prior to its ignition.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:60 (January 1992).

§2507. Applicability

A. The provisions of this Chapter apply to pressurized components of a compressed natural gas (CNG) system, and are applicable to both engine fuel systems and compression, storage, and dispensing systems.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:61 (January 1992).

§2509. Odorization

A. Compressed natural gas shall have a distinctive odor potent enough for its presence to be detected down to a concentration in air of not over one-fifth of the lower limit of flammability.

B. Compressed natural gas shall be odorized according to the provisions of LAC 43:XIII.2725 (Odorization of Gas).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:61 (January 1992).

§2511. Severability

A. If any item, clause, or provision of these rules is for any reason declared invalid, the remainder of the provisions shall remain in full force and effect and shall in no way be affected, impaired, or invalidated.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:61 (January 1992).

§2513. Application for Construction or Certification of Existing Facilities

A. An application must be submitted to the commissioner for construction for each CNG facility and all applications must be accompanied by a filing fee in accordance with LAC 43:XIX. The application must have the following information:

1. the exact legal name of the applicant; its principal place of business; the state under the laws of which applicant was organized or authorized; if a corporation, a certificate of good standing and authorization to do business from the secretary of state of Louisiana, the location and mailing address of applicant's registered office, the name and post office address of each registered agent in Louisiana, and the name and address of all its directors and principal offices;

2. the nature of service to be rendered by applicant, sale to public, applicant's fleet, private fleet, and/or public transportation;

3. if any, location of applicant's existing CNG facilities;

4. a table of contents which shall list all exhibits and documents filed with the application;

5. a schematic of applicant's proposed facilities, which shall reflect the location and capacity of all compressor sites, point of connection with piping between compressor(s) and dispensing units;

6. a listing of applicant's gas supply for compression at the point the gas enters service facility for ultimate compression;

7. a CNG Form 100;

8. subsequent filings may be required by the commissioner to complete an evaluation.

B. The commissioner shall determine whether the design, manufacture, construction, or use of the depicted items, system, operation, procedure, or installation meets the minimum standards set forth by the American Society of Mechanical Engineers, Underwriters Lab and\or American Gas Association. At the discretion of the commissioner an administrative order shall be issued authorizing the construction of a CNG facility. If the commissioner requires a public hearing on the matter, the applicant shall be notified within 15 working days from receipt of application and a hearing date shall be set. When an application is submitted to the commissioner, automatic approval is hereby granted and construction can begin 30 days after receipt of the application by the commissioner in lieu of a written order. However, any correspondence from the commissioner during the 30-day period may set aside the 30-day automatic approval.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:61 (January 1992).

§2515. Acquisition of an Existing CNG Facility

A. Notice must be given to the commissioner by anyone wishing to acquire an as -built CNG facility. The notice shall include information outlined in §2513.A.1 and 3.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:62 (January 1992).

§2517. Changes in Service

A. If any owner of a CNG facility wishes to change the nature of service as listed in §2513.A.2 by adding additional services or deleting services, the operator of the facility shall notify the commissioner in writing and submit a Form CNG 101 "Change of Service". No change in service may occur without written approval from the commissioner; however, the applicant may make the changes applied for if the commissioner has not responded within 21 days after receipt of the change request.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:62 (January 1992).

§2519. Approval of CNG Systems Equipment and Components for Vehicles

A. All CNG equipment installed on a vehicle must meet the minimum standards set forth in Section 52 of the National Fire Protection Association (Vehicle Fuel System Standards).

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:62 (January 1992).

§2521. Design and Construction of Cylinders and Pressure Vessels

A. Cylinders and pressure vessels shall be fabricated of steel, aluminum, or composite materials.

B. Cylinders shall be manufactured, inspected, marked, tested, and retested in accordance with U.S. Department of Transportation (DOT) regulations and exemptions for compressed natural gas (CNG) service. Fuel supply cylinders shall have a rated service pressure of not less than 2,400 psig at 70 degrees F. Cascade storage cylinders shall have a rated service pressure of not less than 3,600 psig at 70 degrees F. Note: Currently, there are no cylinder specifications in DOT regulations for CNG. Current documents covering these cylinders are DOT exemptions. These are single purpose documents issued to a single company for a specific CNG application.

C. Pressure vessels and containers other than cylinders shall be manufactured, inspected, marked, and tested in accordance with the "Rules for the Construction of Unfired Pressure Vessels," "American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section VIII (Division 1)."

D. In addition to other marking requirements, cylinders shall be labeled with the words, "FOR CNG ONLY" in letters at least one inch high in a contrasting color and in a location which will be visible after installation. Decals or stencils are acceptable.

E. Field welding or brazing for the repair or alteration of a cylinder or ASME pressure vessel is prohibited.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:62 (January 1992).

§2523. Pressure Relief Devices

A. Each fuel supply cylinder in vehicles shall be fitted with a pressure relief device in accordance with the following:

1. pressure relief devices for cylinders shall be in accordance with Compressed Gas Association (CGA) Pamphlet -1.1 and be of the "Combination Rupture Disk Fusible Plug CG-5 "type in which the fusible plug has a nominal yield temperature of 212 degrees F;

2. only one combination rupture disk-fusible plug shall be installed in any pressure relief device opening;

3. the pressure relief device shall communicate with the fuel and be vented to the atmosphere by a method that will withstand the maximum pressure which will result;

4. the discharge flow rate of the pressure relief device shall not be reduced below that required for the capacity of the container upon which the device is installed;

5. the pressure relief device on cylinders shall be permanently marked with the manufacturer's name, initials, or trademark, the temperature rating (212 degrees F) of the fuse plug, and the maximum pressure rating of the rupture disk.

B. The minimum rate of discharge of pressure relief devices shall be in accordance with Compressed Gas Association (CGA) pamphlet S-1.1 (cylinders); S-1.2 (cargo and portable tanks); S-1.3 (storage cylinders); or the ASME Code, whichever is applicable.

C. Pressure relief valves for CNG service shall not be fitted with lifting devices. The adjustment, if external, shall be provided with means for sealing the adjustment to prevent tampering by unauthorized persons. If at any time such seal is broken, the valve shall be removed from service until it has been reset and sealed. Any adjustments necessary shall be made by the manufacturer or his authorized representative(s).

D. Each pressure relief valve shall be plainly marked by the manufacturer of the valve, as follows:

1. with the pressure in pounds per square inch (psi) at which the valve is set to start-to-discharge;

2. with the discharge capacity in cubic feet per minute (cfm); or

3. any other marking(s) as required by the Department of Transportation (DOT) or the ASME Code.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:62 (January 1992).

§2525. Pressure Gauges

A. Pressure gauges shall be designed for the normal pressure and temperature conditions to which the devices may be subjected with a burst pressure safety factor of at least four.

B. Dials shall be graduated to read 1.2 times the operating pressure of the system to which the gauge is attached.

C. A gauge shall have an opening not to exceed 0.055 inches (number 54 drill size) at the inlet connection.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:63 (January 1992).

§2527. Pressure Regulators

A. A pressure regulator inlet and each chamber shall be designed for its maximum working pressure with a pressure safety factor of at least four.

B. Low pressure chambers shall provide for excessive pressure relief or be able to withstand the operating pressure of the upstream pressure chamber.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and-752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:63 (January 1992).

§2529. Piping

A. Pipe, tubing, fittings, gaskets, and packing material shall be compatible with the fuel under the service conditions.

B. All tubing shall be a minimum of type 304 stainless steel. All tubing connections shall be made of manufactured multifarrel compression fittings.

C. Piping, tubing, fittings, and other piping components between a cylinder or pressure vessel and the first shutoff valve shall be capable of withstanding a hydrostatic test of at least four times the rated working pressure without structural failure.

D. Compressed natural gas piping shall be fabricated and tested in accordance with "American National Standard Code for Chemical Plant and Petroleum Refinery Piping," "American National Standards Institute (ANSI) B31.3." Such piping shall be "American Standard Testing Material (ASTM)" steel, Schedule 80, or better. All pipe fittings shall be forged steel stamped 6,000 psi or greater.

E. The following components or materials shall not be used:

1. fittings, street ells, and other piping components of cast iron or semi-steel other than those complying with "American Society for Testing and Materials (ASTM) Specifications A-536 (Grade 60-40-18), A-395, and A-47 (Grade 35018)";

2. plastic pipe, tubing, and fittings for high pressure service;

3. galvanized pipe and fittings;

4. aluminum pipe, tubing, and fittings;

5. pipe nipples for the initial connection to a cylinder or pressure vessel;

6. copper alloy with copper content exceeding 70percent.

F. Piping components such as strainers, snubbers, and expansion joints shall be permanently marked by the manufacturer to indicate the service ratings.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:63 (January 1992).

§2531. Valves

A. Valves, valve packing, and gaskets shall be suitable for the fuel over the full range of pressures and temperatures to which they may be subjected under normal operating conditions.

B. Shutoff valves shall have a design working pressure not less than the rated working pressure of the entire system with a safety factor of four.

C. Valves of cast iron or semi -steel other than those complying with "ASTM Specifications A-536 (Grade 60-40-18), A-395, and A-47 (Grade 35018)" shall not be used as primary shutoff valves.

D. Valves of a design that will allow the stem to be removed without removal of the complete bonnet or disassembly of the valve body, and valves with valve stem packing glands which cannot be replaced under pressure shall not be used. Exception: where there is a shutoff valve of acceptable type between them and the container or pressure vessel (this does not apply to service valves).

E. The manufacturer shall stamp or otherwise permanently mark the valve body to indicate the service ratings. Exception: fuel supply container valves need not be marked as such.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:63 (January 1992).

§2533. Hose and Hose Connections

A. Hose and metallic hose shall be of or lined with materials that are resistant to corrosion and the actions of compressed natural gas (CNG).

B. Hose, metallic hose, flexible metal hose, tubing, and their connections shall be suitable for the most severe pressure and temperature conditions expected under normal operating conditions with a burst pressure of at least four times the maximum working pressure.

C. Hose assemblies shall be tested by the manufacturer or its designated representative prior to use at pressures equal to not less than twice the service pressure.

D. Hose shall be continuously and distinctly marked, indicating the manufacturer's name or trademark, CNG service, and working pressure. Metallic hose shall have a manufacturer's permanently attached tag marked with the manufacturer's name or trademark, CNG service, and working pressure.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:63 (January 1992).

§2535. Compression Equipment

A. Compression equipment shall be designed for use with compressed natural gas (CNG) and for the pressures and temperatures to which it may be subjected under normal operating conditions. It shall have pressure relief devices which shall limit each stage pressure to the maximum allowable working pressure for the cylinder and piping associated with that stage of compression.

B. When CNG compression equipment is operated unattended, it shall be equipped with a high discharge and low suction pressure automatic shutdown control.

C. Control devices shall be designed for the pressure, temperature, and service expected under normal operating conditions.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:64 (January 1992).

§2537. Vehicle Fueling Connection

A. A vehicle fueling connection shall provide for the reliable and secure connection of the fuel system cylinders to a source of compressed natural gas (CNG).

B. The fueling connection shall be suitable for the pressure expected under normal conditions and corrosive conditions which might be encountered.

C. The fueling connection shall prevent escape of gas when the connector is not properly engaged or becomes separated.

D. The refueling receptacle on an engine fuel system shall be firmly supported, and shall:

1. receive the fueling connector and accommodate the working pressure of the vehicle fuel system;

2. incorporate a means to prevent the entry of dust, water, and other foreign material. If the means used is capable of sealing system pressure, it shall be capable of being depressurized before removal.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:64 (January 1992).

§2539. External Corrosion Control

A. All buried pipe and/or tubing must be protected against external corrosion as outlined in LAC 43:Xlll.2107.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:64 (January 1992).

§2541. Leak Survey

A. Each operator of a CNG facility having underground piping shall conduct a leak survey each calendar year.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:64 (January 1992).

§2543. Report of CNG Incident/Accident

A. In case of an incident involving a single release of compressed natural gas (CNG) during or following CNG transfer or during container transportation, or an accident at any location where CNG is the cause or is suspected to be the cause, the person(s) owning, operating, or servicing the equipment or the installation shall notify the commissioner. This notification shall be by telephone as soon as possible after knowledge of the incident or accident. Any loss of CNG which is less than 1.0 percent need not be reported. However any loss occurring as a result of a pullaway must be reported. The telephone number to be used to report accidents is (225) 342-5505.

B. Information which must be reported to the commissioner shall include:

1. date and time of the incident or accident;

2. type of structure or equipment involved;

3. resident's or operator's name;

4. physical location;

5. number of injuries and/or fatalities;

6. whether fire, explosion, or gas leak has occurred;

7. whether gas is leaking; and

8. whether immediate assistance from the commissioner is requested.

C. Any person reporting must leave his/her name, and telephone number where he/she can be reached for further information.

D. Any CNG powered motor vehicle used for school transportation or mass transit including any state-owned vehicle which is involved in an accident resulting in a substantial release of CNG or damage to the CNG conversion equipment must be reported to the commissioner in accordance with this Section regardless of accident location.

E. Following the initial telephone report, a CNG Form 200, Report of CNG Incident/Accident, must be submitted to the commissioner. The report must be postmarked within 14 calendar days of the date of initial notification to the commissioner.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:751 and 752.
HISTORICAL NOTE: Promulgated by the Department of Natural Resources, Office of Conservation, Pipeline Division, LR 18:64 (January 1992).

Appendix C

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