VEHICLE MANAGEMENT

Please detail the responsibilities of the department.

The primary responsibility of Vehicle Management is to meet the transportation needs of the University of South Carolina. These needs include acquisition, issuance, and maintenance of all state owned vehicles assigned to the University. Vehicle Management provides long-term leasing to individual departments as well as daily rentals for faculty and staff. Vehicle Management is also responsible for all maintenance and general repairs of University vehicles.

How many employees are in the department?

10

Please provide the name(s) of individuals in the department that are involved with decisions regarding environmental issues concerning the department.

Derrick Huggins
Chris Howard
Marc Johnson
Donnie Longshore

Please list future plans/goals regarding environmental issues.

In its continuing effort to develop itself into a role model as a sustainable community, the University of South Carolina has taken an aggressive role in using biodiesel and Alternate Fuel Vehicle's (AFVs) in several functional areas in the core of campus. These core areas are the USC Horseshoe, Gibbes Greene, the Bridge, and the College Street Brick Walk areas. Since the core area is the most concentrated area on campus, several departments have placed AFVs and vehicles that use biodiesel in these areas. To help with this initiative, USC administration implemented a "no tolerance" policy on inappropriate vehicles that access brickwalk and landscape areas in the campus core. Most vehicles that were designated to sustain the core areas are light duty AFVs. With parking lots in the core area of campus being converted to "green space" and pedestrian walkways, the university has placed more emphasis on providing a reliable transit service for faculty, staff, students, and visitors. USC was initially concerned about the coagulation of biodiesel in the bus fuel lines. As of today, we have not experienced problems with coagulation and will continue to phase biodiesel in more buses. There are up to 4500 students that ride the buses each day and they have been receptive to this initiative. Some students now refer to the Carolina Shuttles as the "bean buses". Also, biodiesel is used in some of our grounds landscape tractors and small duty grounds equipment.

An ethanol component was added to the AFV program in 2004. USC will designate 30 administrative cars (Ford Taurus) and 40 small maintenance trucks (Ford Rangers, Chevrolet S10's) as ethanol only vehicles. These vehicles will drive over 99% of vehicle miles locally. The Vehicle Management and Parking Division (The Division) will be responsible for collecting data on the amount of E-85 consumed quarterly, local mileage obtained using ethanol in cars versus trucks, and estimated air emissions reductions from
using ethanol versus standard gasoline. Using E-85 in these vehicles will displace 42,834 gallons of gas per year.

The Division will ask all department heads to continue using the Ford Taurus and refueling the flex fuel vehicle at the University of South Carolina Vehicle Management office. All department heads are considered highly visible administrators, and The Division's director will aggressively promote the use of these ethanol-fueled vehicles to demonstrate their environmental benefits. USC's Media Relations Department will work with The Division to publicize the use of E-85, and will print stories about names of the directors and departments that are participating in this Special Project. Also, USC has completed the construction of a "green" dorm that is located in the core of campus. This dorm has been recognized nationally and The Division will make the Green Dorm an "Alternative Fuels Only" zone.

The Division will also work with the USC School of the Environment to ensure that students are exposed to these vehicles, as well. USC Vehicle Management will have one graduate student that will compile data from the 75 vehicles participating in this project and will use it to support her thesis.

By installing an E-85 refueling infrastructure on campus and running USC's AFVs on E-85, USC will be making visible and easily publicized strides in demonstrating the benefits of alternative fuels to other departments on campus, other state agencies, students, administrators, and campus leaders. These vehicles are a visible part of USC's commitment to sustainability, especially since they all carry the USC Alternative Fuels logo.

One of the initial intentions of the use of Alternative Fuel Vehicles (AFV) was to encourage other departments on campus and state agencies to consider and implement AFVs while increasing awareness of energy and air pollution issues among the students. The food service department, housing maintenance and custodial services both utilize the vehicles to transport personnel, equipment and make service calls to the residence halls, academic areas, and business offices across campus. The Computer Service Division utilizes these vehicles to transport computers and make service calls as well. In addition to the original intention of the electric vehicles utilized by several departments, the vehicles have proven to be of tremendous benefit in their daily use. The vehicles have had the added benefit of providing access to all campus areas including difficult to reach areas that are not accessible by road such as the historic horseshoe of USC. With parking spaces at a premium on the urban campus, the vehicles also allow personnel the ability to park and access buildings conveniently without taking up traditional parking spaces.

The use of AFVs and biodiesel reduces noise and air pollution as well as the dependency on foreign oil as compared to traditional vehicles while reducing operating costs for the department. An electric vehicle can cost as much as 90% less to operate and maintain than a traditional vehicle and with a payback period of 2-3 years can provide savings of thousands of dollars for each traditional vehicle the University replaces. During freshmen orientation, biodiesel buses are used to give tours to our students and parents. During the
heavy traffic times of student Move In and Move Out, electric vehicles have provided efficient and easy transport across campus to service the residence halls and recycling efforts that go on at these times. Also, with students being receptive to the use of these vehicles and their benefit to the environment, they are able to take these practices back home and demonstrate to their community the benefits in applying sustainable initiatives.

Survey 2003-2004
Please answer the following questions as completely as possible. They are intended to assist the Environmental Advisory Committee (EAC) with assessing the status and progress of the University’s environmental policy. Feel free to add additional comments, explanations, or data where relevant.

1. Does the department have an environmental policy and how does it determine the environmental impacts of its processes and/or services?
   We adhere to a University initiative to buy more environmental friendly vehicles. See above

2. How many parking spaces are available on campus for: FY 03/04
   a. Faculty/Staff 2278
   b. Students 4681
   c. Meters 1067
   d. Total 8026

2. How many parking permits are issued for: FY 03/04
   a. Faculty/Staff 4780
   b. Students 6000
   c. Visitor Passes n/a
   d. Service Vehicle Passes 299
   e. Parking Garage Passes 4710
   f. Total Registered Vehicles 15789

3. Has the University increased its available parking space in the past year? If so, how was this accomplished?
   Yes. Increased parking in the perimeter areas to reduce traffic in the core of campus...see above.

4. Does the campus currently have enough parking to meet demand?
   The University has one of the lowest parking ratios for urban campuses on the east coast.

5. Are there plans to increase parking space in the future? If so, how will this be done?
   Yes. There are several decks to be placed in the core for residence students and perimeter for commuter students.

6. Other than carpooling, does the University have programs that promote ride sharing? (i.e. matching services, preferential parking, reduced rates, subsidized van pools) Are there plans to institute such programs?
The University promotes a pre-tax benefit for all faculty/staff that pay to park.

7. What is the status and/or progress of getting bike routes established on campus?
   There are others who would be better qualified to answer this question, Trish Jerman, Ben Coonrod

8. Besides the 10 bike racks added in 2003, are there plans (or a need) to install additional bike racks in the future?
   We have increased the number of bike racks by 5 in the core. Parking Services are looking at bike lockers for students that need extra security for the high end bikes.

9. How many vehicles are in the University motor pool? How many of these are dedicated to the Columbia campus?
   There are 462 vehicles in the University fleet. 379 are assigned to the Columbia campus.

10. How many of these are vehicles use alternative fuels? (Biodiesel or electric)
    10 electric, 12 vehicles using biodiesel

11. Does the department plan to increase the number of vehicles that use alternative fuels? If so, how will this be done and when?
    Yes, primarily by the purchase of an ethanol fueling station. We already have approximately 100 vehicles that are capable of running on ethanol. We will also continue to increase the use of biodiesel and the purchase of electric vehicles to service the campus core.

12. Has the department taken other measures to limit energy consumption or environmental impacts?
    See plans/goals section

13. What percentage of vehicles dedicated to the Columbia campus refuels at the motor pool?
    80%

14. How many gallons (G) of fuel were used in fiscal year 2003-2004? And what was the cost?
    136,146.50 gallons of gasoline at motorpool - $167,783.38
    26,347.50 gallons of diesel at motorpool - $31,826.94
    40,242.60 gallons of gasoline from outside - $58,779.56
    1,193.40 gallons of diesel from outside - $1,642.88
    4,119.90 gallons of biodiesel - $5,581.13

15. How many busses make up the University shuttle bus system? And what is the capacity of the busses?
    (4) - 40 passenger buses and (7) - 30 passenger buses
16. Shuttle bus usage:
   a. Months in operation  **12**
   b. Passengers/year  **475,000**
   c. # of bus trips/routes per day  **7 routes run on campus each day**
   d. Average # of passengers per trip/route  **750 passengers per route per day**

17. Has the demand or use of the shuttle bus system increased in recent years?
   **Demand for shuttle buses has increased due to reduction in parking in the campus core.**

18. What is the average mile per gallon of the shuttle busses?
   **Average mpg is 5**

19. What hazardous materials are handled by the department? How much of each was handled during 2003-2004 and how was each disposed?
   **None**

19. Does the department have plans to start purchasing recycled batteries or re-treaded tires? If, so please comment on these plans.
   **Not at this time**

20. Does the department still operate three underground storage tanks for fuel storage?
   **Yes**

**Comments Provided By:**  Chris Howard, Vehicle Management  
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**Conducted By:**  Elaine R. Durr, SUI Graduate Assistant  
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