City of Maitland
Fleet Management

Green Fleet Policies
Sept. 21, 2009

The City of Maitland has been practicing Green Fleet Management as part of our Best Management Practices for years. We strive to protect our environment by reducing our contribution to the landfill, recycling, reducing toxic waste and using environmentally friendly fluids. It is the Public Works Fleet Management Policy to operate our fleet in accordance with the FGBC Fleet Management & Vehicle Maintenance guidelines. We practice the following strategies and procedures:

A. Optimize Efficient Vehicle Use:

1. Reduce vehicle miles traveled.
   - Encouraging more work in the field:
   - City vehicles are to be used only for planned trips and carpooling is standard procedure.

2. Increase vehicle utilization:
   - Most City vehicles are equipped with GPS tracking devices, enabling the Fleet Maintenance Superintendent to review vehicle usage and idle time.

B. Purchase Efficient Vehicles:

1. Purchase Efficient Vehicles:
   - We strive to purchase the most fuel efficient and/or hybrid vehicles for the required purpose.
   - Fuel efficiency and developing alternative fuels have, and will continue to be, evaluated. Our goal is to utilize the most efficient vehicles possible.

2. Purchase Alternative Fuel (renewable energy) vehicles:
   - In an effort to reduce our carbon footprint the City of Maitland purchases all new Police Vehicles to be flex-fuel compliant.
   - Other vehicles will be replaced by attrition and, where feasible, Alternative Fuel Vehicles will be purchased.
   - Bio Fuel feasibility is reviewed periodically to determine feasibility. However, at the present time the City does not

have the capacity to stock a sufficient amount of bio fuel for our fleet.

3. Purchase vehicles with extended maintenance intervals:
   - The City strives to maximize service intervals for all vehicles, and makes this a consideration when purchasing.
   - 100% of the City's fleet has been converted to use synthetic oil to extend the maintenance intervals for oil changes.

C. **Segregate, Label, and Store Fluids Properly:**
The City of Maitland follows all Local, State and Federal regulations regarding vehicle fluid storage and use. Specific actions include:

1. Segregation of Fluids:
   - All fluids are stored in proper areas to avoid accidental mixing.
   - Waste oil is stored behind the building.
2. Use Proper Signs and Labels:
   - All Fluids are stored in containers with labels designating: type of fluid, manufacturer's labels, warning labels, and dates.
3. Store Inside Secondary Containment:
   - None
4. Seal or berm adjacent floor drains:
   - No drains in bays.
5. Use a funnel:
   - Funnels and drain pans are used at all times to prevent spills.
6. Keep the funnel, lid or bung closed:
   - All funnels, lids and bungs are closed when not in use to prevent spills and cross contamination.
   - All fluids are returned to proper storage area after use.
7. Inspect for leaks:
   - All vehicles are regularly inspected for leaks.
   - City employees are advised to report any observed leaks from City vehicles immediately.
8. Maintain current MSDS:
   - All MSDS are current and available at the Fleet Maintenance Superintendent's office
9. Contract reliable haulers and maintain disposal receipts and records:
   - In accordance with City of Maitland Purchasing guidelines, all waste haulers, or other vendors, must provide all state and local licenses, permits, insurance and current financial records.

- Receipts are maintained by Finance Office as per standard procedure.

10. Plan and prepare for spills and other emergencies:
    - Speedi Dry is readily available throughout the shop.
    - All employees are educated on spill containment and handling.
    - All spills are to be immediately cleaned to prevent slip and fall injuries and environmental impact.
    - All State Warning Point contact numbers are posted on the bulletin board outside the Fleet Maintenance Superintendent's office.

D. Reduce Solvents and Parts Cleaning Waste:

1. Reduce the number of parts washers:
    - One parts washer for all parts
    - ZEP Dynaclean II recycles and filters parts washing fluid
2. Switch to more environmentally friendly solvents:
    - In order to minimize toxic fluids City of Maitland evaluated toxicity of various parts washing fluid and now uses Dyna wash.
3. Manage Inventory of spray cans and other secondary solvent sources.
    - The City of Maitland keeps on hand minimal stock of all fluids to reduce volume of fluids in the building.
    - Fluids are ordered as needed
    - Stock is rotated "FIFO".
    - Refillable spray bottles are utilized where appropriate.
    - No secondary solvents are allowed in work areas.
4. Implement solvent reduction practices:
    - Parts are cleaned on an "as needed" basis.
    - Multi-stage parts cleaning procedure:
        a. Pre-cleaned with rags and/or brushes
        b. Parts are cleaned in parts washer that re-uses/recycles parts cleaning fluid. Filter system prevents sediment build up in washer.
    - Solvent is filtered using ZEP Dynaclean II.
    - Fluid is replaced "as needed".
5. Store solvents and solvent waste safely:
    - All solvents are stored safely and properly in accordance with OEM instructions, Local, State & Federal Regulations.
6. Wear gloves and other recommended PPE:
    - Employees are trained on personal protective equipment gear and use.
    - Protective gear is required.

E. Reduce/Recycle Waste Oil & Filters:

1. Reduce the quantity of used oil and used oil filters:
   - All vehicles undergo a Quarterly maintenance check. In addition, any reported leaks or vehicle problems are addressed immediately.
   - Oil bypass filtration systems are under evaluation.
   - Oil testing equipment is not available at this time.
2. Select and purchase environmentally friendly products:
   - Not currently purchasing re refined oil.
   - Re usable oil filters are under evaluation.
3. Safely collect, segregate, and store used oil and used oil filters.
   - All filters are drained in to container for recycling oil prior to disposal in "Used Oil Filter" container.
   - Oil filters are recycled through Safety Clean
   - All fluids are drained, captured and stored properly prior to recycling. Fluids include: oil and radiator fluid.
   - Fluids are stored for recycling until pick up.
4. Recycle used oil and used oil filters.
   - Recycled oil through Howco
   - Recycled radiator fluid through Howco

F. Batteries:

1. Rotate battery stock on a First-In First-Out (FIFO) basis:
   - City of Maitland maintains minimal stock and batteries are rotated FIFO.
2. Extend battery life:
   - Trickle charger is used to maintain charges on inactive vehicles where appropriate.
   - Brass connectors are used where appropriate and in accordance with manufacturer's specifications.
3. Collect, segregate, and store batteries safely.
   - All batteries are stored safely and employees are educated on the dangers of battery fluid.
   - Safety eye wash station and shower located convenient to the service area.
4. Recycle batteries:
   - One battery is returned to supplier for each battery purchased.
   - In accordance with City of Maitland Purchasing guidelines, all receipts for batteries are on file with Finance Office.

G. Radiators and Coolant/Antifreeze:

1. Radiator maintenance is performed in house.

2. Decrease need for coolant/antifreeze replenishment and replacement:
   - Service Pro Extended Life antifreeze used for City vehicles.
   - Radiators are repaired immediately upon report of leak.
3. Select environmentally–friendly products where feasible.
4. Collect, segregate and store coolant safely:
   - Radiator fluid is drained in to collection pan.
   - Collection pan is drained in to container with funnel.
   - Container is sealed and labeled.
   - Recycled to Safety Clean

H. Wheels & Tires:

1. Reduce tire tread wear.
   - Police cars tires are Police Rated Tires.
   - Vehicle tires are regularly checked and maintained for proper inflation pressure.
   - Vehicle tires are rotated quarterly and balanced as needed.
   - Wheels are aligned as needed as determined by Quarterly Maintenance check.
2. Retread/Recap Program:
   - City of Maitland uses retread tires for heavy equipment such as wastewater trucks, dump trucks, street sweepers and medium duty vehicles.
   - Damaged tires are repaired and held in separate storage area for use in emergencies, such as hurricane clean-up activities.
3. Reuse/Recycle wheel balancing weights.
   - All weights are deposited in a collection bucket and recycled locally.
4. Collect and store tires properly:
   - New tires are stored in well ventilated, covered back room.
   - Tires to be recycled are held in an outdoor bin.
   - Minimal stock of tires is stored on property and separate from work area.
   - Excessive number of waste tires is prevented by regular recycling in batches of 100 to 125 at a time (WastePro picks up tires).

I. Body Repair and Painting: N/A

City of Maitland out-sources vehicle Body Repair and Painting.

J. Fueling Station:

1. Evaluate outsourcing to a fueling service:

- It is currently more cost effective for City of Maitland to operate its own fueling station.

2. Gasoline vapor recovery is under evaluation:
   - Stage 1 Vapor Recovery System to be installed by October 31, 2009 (P.O. already issued)
3. Track Fuel usage:
   - All vehicles are inspected and maintained on a Quarterly basis.
   - Fuel usage (mpg) is tracked to ensure efficiency of vehicles.
4. Records reconciliation and leak detection:
   - Fuel delivery and consumption is closely monitored.
   - For safety hoses, piping, valves and tanks are regularly checked for leaks.
5. Avoid Topping off:
   - Signs are posted on gas pumps.
6. Secondary containment for tanks and piping.
   - All fuel tanks are double walled.
7. Consider switching to above ground tanks.
   - All fuel tanks are above ground.
8. Prepare for emergencies:
   - Shut off valve is clearly visible.
   - Spill containment and handling supplies are convenient and ready for use.
   - Employees are aware of responsibilities and procedures.
   - State Warning Point information is posted in office.
   - Employees are familiar with location and routes to medical facilities.

K. **General Housekeeping Best Management Practices:**

1. Immediately contain and clean-up leaks and spills.
   - Drivers/operators are trained to inspect vehicles for leaks.
   - Vehicles waiting for leak repairs have fluid capture pans placed beneath them until bay is available.
   - Minor spills are routinely and immediately cleaned up.
   - Speedi Dry is handy for use.
   - Shop towels are readily available.
   - Reusable pads are readily available.
2. Perform all mechanical service within the service bays:
   - All work is performed in bays, with the exception that oversized vehicles are repaired in a designated area.
   - Floors are painted concrete.
   - No drains in bay area.
3. Protect storm drains from potential contamination.
   - Storm drains are 100 ft. from building. No berms.
4. Keep shop clean and organized.

- Floors are swept as needed to prevent buildup of dirt and contaminants.
- Technicians are responsible for clean workstations.

5. Properly store and recycle/dispose of scrap parts:
   - Auto parts containing fluids are stored over impervious surface and under a roofed area.
   - Scrap metal parts (brake rotors, mufflers, wheel weights, steel parts) are segregated and recycled locally.
   - Metal shavings are collected by device on machine.
   - Core parts are returned to supplier for rebuilding.
   - Shop has not had occasion to replace catalytic converters, but will recycle as necessary.
6. Properly handle parts that may contain mercury:
   - Mercury containing parts (including florescent lamps) are stored in a separate closet with door opening only to the outside of the building. Parts are held until recycled.
7. Properly handle airbags that contain toxic chemicals
   - Employees are trained in proper handling of airbags.

L. Refrigerant Recovery:

1. Diagnose and repair leaks quickly.
   - Vehicle users are trained to report malfunctioning air conditioning issues immediately for repair.
2. Use approved capture and recycling equipment:
   - Equipment is EPA or UL listed.
   - Recover at least 80% to 90% of refrigerant.
   - Refrigerant storage containers are DOT or UL approved and properly labeled.
3. Train Technicians.
   - Technicians are trained and certified as per EPA Section 609 of the Clean Air Act.

Effective Date: 9-21-09

Authorized: _____
Rick Lemke, Public Works Director

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Buddy Burnham, Fleet Maintenance Superintendent