



Presents:

# Fuel Conservation



June 2008

## TABLE OF CONTENTS

### **FUEL CONSERVATION IDEAS**

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CLEARWATER, FLORIDA	1
LYNCHBURG, VIRGINIA	5
NAPERVILLE, ILLINOIS	8

### **NO IDLING POLICIES**

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CLEARWATER, FLORIDA	28
CONOVER, NORTH CAROLINA	29
DELRAY BEACH, FLORIDA	32
FORT COLLINS, COLORADO	34
PLANO, TEXAS	38
DECATUR, GEORGIA	41

### **About the Alliance for Innovation:**

The Alliance for Innovation is an international network of progressive governments and partners committed to transforming local government by accelerating the development and sharing of innovations. We seek out innovative practices, challenge existing business models, exchange knowledge and provide products and services which help our members perform at their best. Together with our partners, ICMA and Arizona State University, we are promoting excellence in local government.

For more information please visit [www.transformgov.org](http://www.transformgov.org).

## Clearwater, Florida FUEL CONSERVATION

The City of Clearwater is experiencing the budgetary impact of rising fuel costs. As we did last year, the cooperation of all departments is critical to ensure we employ all fuel conservation measures possible to contain or reduce consumption. Outlined below are the initial procedures implemented last year by the departments utilizing the majority of the City's fuel supply. These procedures can be used throughout the organization without negatively impacting the service levels that the Citizens of Clearwater enjoy today. As the weather warms up and the price of fuel continues to rise, these and other energy saving measures will become essential to overall management of cost. Please ensure that all employees understand the significance of this issue and the challenge we face in containing fuel consumption

### **Solid Waste/General Services**

- Other than those transporting putrescible solid waste, no trucks will be sent to the County's Waste-to-Energy Plant if carrying less than half a load.
- No city vehicles will be started before drivers punch in.
- All vehicles will be shut down when in line at the Transfer Station, when waiting at Fleet Maintenance, etc.
- No tractor-trailers will be idling while staged for loading at the Transfer Station.
- Employees will be held to new standards, eliminating the need for supervisors to go back to inspect routes after completion.
- Supervisors will try to find ways to effectively share vehicles with other supervisors.
- All supervisors will be cross-trained so that if a customer complaint or concern is received, the closest supervisor will respond.
- Employees traveling out of town are strongly encouraged to use their own personal vehicle, or share a City vehicle
- Reduce the exercise times on all generators (55) located within the City from once per week to once every two weeks. We must be very careful with this approach since reliability of the back-up emergency power could be affected with the change of the frequency of the test.
- Building and Maintenance is combining two workers in one vehicle when traveling to the same work site.

## **Police**

- Require all Patrol units to sit idle 15 minutes every hour (this was our primary strategy during the fuel shortage in the 1980's).
- Place moratorium on all out-of-county training using department vehicles.
- Increase the surcharge for vehicles on off-duty jobs (we should do this anyway; it is currently \$10 per job).

## **Public Works**

- Trucks in supervisor's pool will be used only when need to go out in the field.
- Crew cab trucks will accommodate additional workers, where possible, to limit the number of vehicles on one site.
- Only fuel up those trucks that need to carry crews to job sites.
- Make purchases for everyone in need at home depot, keeping the number of trips down to the stores.
- No use of city vehicles for lunch hours; eat on the job or at the complex.

## **Public Utilities**

- Water meter shop work orders geographically routed for change-out's, on and offs and meter repairs
- Reclaimed water backflow checks, repairs and new customer connections combined
- Locate tickets issued by geographic area
- Valve and hydrant repairs/checks routed by geographic area
- Major water service line and utility relocate projects confined to neighborhoods by project design
- Avoiding carrying excess fuel
- Taking care to properly stock vehicles prior to leaving the compound to avoid excessive return trips

- Eliminate idling in all vehicles.
- Combining crews into one vehicle to conduct routine preventive maintenance on lift stations.
- Working with crews to take lunch in the field whenever possible.

## **Fire**

- The Station Officer can allow multiple tasks to be completed by a unit from that Station that is on the road completing an assignment consisting of coordinating individual unit objectives.
- Consider shutting down on-scene vehicles unless actively engaged in operational responsibilities.

## **CLEARWATER GAS**

- Ensure daily that job requirements are managed in an efficient manner while reducing unnecessary travel.
- Turn vehicle engines off when the vehicle is not moving.
- Continue to utilize only HESS Gas Station purchases with VOYAGER Cards.
- Insure that only the required vehicles to complete the job are utilized, where possible consolidate employees/crewmembers.
- Clearwater Gas System will again contact Pasco County to see if arrangements can be made to refuel at their bulk sites on a reimbursable basis.
- When possible, have supervisors travel together to minimize the use of vehicles/fuel.
- Challenge each employee to conserve fuel with an initial goal of a 10 percent mileage reduction on each vehicle beginning the month of September.
- Work with Sales and Builders to reduce excessive jobs to construction sites. Excessive trips to job or construction sites will be appropriately charged to the Builder.

## **Parks & Recreation**

- Instituted the 'no idling' policy (vehicle sitting and running for air conditioning purposes during breaks).
- Whenever possible, have team members double up.
- Have crews come prepared to travel from work site to work site without any detours for breaks or lunch to nearby stores.
- Drive the most fuel-efficient vehicle available when there are options.
- Double or triple up when we are going to meetings or training sessions.

## Lynchburg, Virginia TIPS FOR FUEL CONSERVATION

**LIMIT IDLE TIME:** Avoid excessive sitting and idling. Shut off the engine while waiting or working in the field.

**TIRE PRESSURE:** Drivers should make sure their vehicle tires are properly inflated. Statistics show tires alone account for 4%-7% of a car's fuel consumption. Keep your tires properly inflated by checking the owner's manual or the door placard for recommended pressure. Do not check the pressure when the tires are warm from driving—let them cool down first. Keep up with your wheel alignments. An alignment is warranted if there is uneven tread wear or if your vehicle "pulls" to one side on a flat road.

**CARGO:** Remove excess items from the vehicle that add weight. It's surprising how much stuff can accumulate in a vehicle especially in the trunk or the back of a pickup. Less weight means better fuel economy.

**PLAN TRIPS:** Look at your schedule and activities and try to consolidate your daily trips. Some trips may be unnecessary. Plan your work to accomplish your task without multiple trips for tools and supplies.

**CLOSE WINDOWS:** Use windows and air conditioning wisely. Due to air resistance your mileage should improve if you keep your windows closed at speeds above 35 miles per hour.

**DRIVE GENTLY:** Avoid sudden acceleration and jerky stop-and-go. Anticipate the traffic patterns ahead of you and adjust your speed gradually and well in advance. Pretend there is an egg between your foot and the accelerator.

**WARM-UPS:** Today's modern vehicle is designed to warm up much quicker and in a matter of seconds so forget about those five minute warm-ups in the morning.

**REDUCE YOUR VEHICLE SIZE:** Reduce the size of the vehicle you're driving to the work site. Don't take a dump truck when a pickup will do and drive the small car instead of the big one for many of your errands.

**CONSOLIDATE:** For Police and Fire use call management and when possible limit the number of vehicles sent to respond to a call. For other city operations, supervisors should park their vehicles and ride with crews to a job site.

**ENGINE PERFORMANCE:** A well maintained engine operates more efficiently and will get better fuel mileage. Check your oil and fluids periodically and don't procrastinate on getting your vehicle in for preventive maintenance when prompted.

## OTHER SUGGESTIONS

1. pay employees a mileage allowance instead of furnishing vehicles
2. monitor employees with take-home vehicles, 4WD vehicles and SUVs
3. have police drive hybrid vehicles for administrative work
4. monitor fuel credit card purchases to ferret out any dishonesty
5. eliminate buying premium unleaded fuel which has 30% more greenhouse emissions compared to regular unleaded fuel – octane has nothing to do with performance but only volatility in combustion chamber
6. adopt written anti-idling policies i.e. no idling longer than 10 minutes an hour
7. reprogram engine computers to shut diesel powered vehicles down after a certain amount of idle time
8. install governors on vehicles (Big Brother approach)
9. install diesel oxidation catalysts in trucks
10. rightsize all vehicles i.e. midsize to compact, V8 to V6, etc.
11. set a target to reduce fuel with incentives back to employees who succeed
12. for vehicles with a fuel economy reading as part of the vehicle gauge package, have drivers keep the mpg reading visible at all times to monitor fuel economy and their driving habits
13. conduct employee training on proper/efficient vehicle usage
14. observe speed limits because EPA says there is a 10-15% improvement in fuel economy if we drive 55 mph instead of 65 mph
15. track utilization
16. run fuel exception reports to see who are the big users
17. experiment with alternative fuel vehicles such as hybrids
18. use autotherm systems
19. install pre-heaters on large trucks to heat hydraulic oil and coolants to reduce idling time
20. use nitrogen filled tires
21. pull over and stop engine when making cell phone calls
22. use GPS and GIS to improve routing
23. install data recorders to see where trips are being taken
24. use camera phones to document items to avoid making a repeat trip
25. provide employees with an incentive for using mass transit
26. modify specifications to purchase more fuel efficient vehicles
27. monitor unneeded weight carried in the back of trucks and reduce loads carried - 200# weight reduces fuel economy 1 mph
28. make only right hand turns like UPS to avoid waiting in traffic to turn left
29. keep maintenance on vehicles current and tuned up with clean filters
30. purchase electronic PTOs
31. keep tires properly inflated - 4 to 5 psi under recommended tire pressure increases fuel consumption 10%
32. fuel up in the morning hours to reduce fuel evaporation

33. park vehicles in shade to reduce fuel evaporation that occurs when parked in hot sun plus air conditioner doesn't have to work as hard cooling a vehicle that has been parked in the sun
34. don't use air conditioner if you really don't need it because it reduces fuel economy 5-20%
35. minimize wind drag by keeping windows rolled up
36. use parasitic systems
37. ride bikes to work
38. trailer equipment to job site instead of driving it
39. establish a satellite work yard to reduce travel time of ferrying equipment to work sites
40. use crew cab trucks to ferry people to job sites instead of using more than one vehicle to get there
41. partnership with adjoining communities to fill up vehicles at their site rather than driving back across town to yours'
42. reduce the need for travel wherever and whenever possible/plan trips
43. use more pool vehicles
44. reduce travel during rush hour to eliminate idling time
45. if living in a hilly area don't punch the accelerator when climbing a hill because pushing on accelerator is just a waste of fuel

# Fuel Conservation Practices

Fleet Services Division (FSD)  
Department of Public Works  
City of Naperville

# City's Fuel Conservation Program

- City has had a Fuel Conservation Program in place since 2005
- Goal: 10% improvement in fuel economy for City vehicles
- Results: Have improved overall fleet fuel economy by 3.4%

# Forces Driving Fuel Conservation

- Fuel Cost: More than doubled since 2004
- EPA: Clean environment
- DOE: Decrease dependence on foreign oil
- Much of the increase in price appears permanent: Increase in global demand for oil not being matched by discoveries of new oil reserves

# Fuel Efficient Driving Techniques

- Warm-up Time
- Idling Time
- “Jackrabbit” Starts & Stops
- Air Conditioning Use
- Excess Weight
- Routing
- Unnecessary Trips
- Drive at Lower Speeds



# Warm Up Time- Gasoline Engines

- With fuel injected engines, do NOT press on the accelerator when starting the engine; it is unnecessary and wastes fuel
- The most fuel efficient way to warm up a gasoline engine is to drive it, not idle it
- The fastest way to warm up the interior of a gasoline powered vehicle is to drive it, not idle it
- Above 32 degrees, 30 seconds is adequate warm up time in all gasoline engines. Under 32 degrees; two minutes or until frost is removed from windows.
- Excessive warm also creates carbon and soot deposits which decrease fuel economy
- Excessive warm up can lead to premature engine damage from partially burned fuel diluting the engine oil

# Warm Up Time- Diesel Engines

- Above freezing: Warm up a diesel engine until all pressure readings are acceptable and all “ wait” lights are out and at least two minutes has passed.
- Below freezing: parked inside; same as above
- Below freezing: parked outside overnight; Five minutes
- In addition to wasting fuel, excessive warm up time at low engine RPM harms diesel engine components which are designed to run at higher temperatures

# Idling

- Eliminating excess idling will increase fuel economy
- Restarting vehicles does NOT prematurely wear out components
- Typical fuel use at idle:
  - Gasoline engines: .2 to .4 gallons/hour idling
  - Diesel engines: .6 to 1.6 gallons per hour idling
- With fuel injected engines, more fuel efficient to stop engine and restart if stopped for longer than one minute
  - At job sites
  - At home base
  - Freight trains
  - Traffic jams

# “Jackrabbit” Starts and Stops

- Avoid fast stops and starts
- Accelerate smoothly
- Maintain an even speed
- Coast to stops

# Air Conditioning

- Use of air conditioning can reduce fuel economy by 10%
  - Air conditioning utilizes 3-5 engine horsepower
  - Lower all windows and vent out the hot air for three minutes before turning on the air conditioning.
  - Leave the A/C off, lower windows and use the “Vent” setting on the fan if the inside temperature is below 75 degrees

# Excess Weight

- Carry only the tools and work material necessary
- Remove all debris daily
- Take an inventory annually and remove unnecessary tools and equipment

# Route Planning

- Review routes and time of travel to avoid congestion and unnecessary idling
- Review routes for shortest distance
- Review daily work assignments to consolidate trips for least mileage

# Unnecessary Trips

- Pool rides whenever possible
- Use telephone or teleconferencing
- Use courier services for deliveries

# Lower Speeds

- Observe all posted speed limits
- 10% reduction in speed can improve fuel economy by 5% even in low speed city driving
- Maintain a steady speed
- Anticipate traffic flows

# Fuel Efficient Maintenance Techniques

- Use manufacturer recommended fuel
- Keep tires properly inflated
- Replace air filter as necessary
- Tuneups
- Beware of gas saving devices

# Use Manufacturer Recommended Fuel

- No benefit to fuel economy in using a higher grade fuel

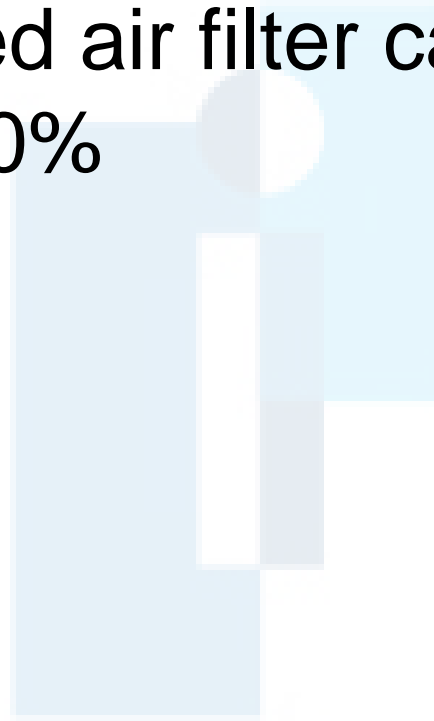


# Keep Tires Properly Inflated

- 10% under inflation can decrease fuel economy by 3-4%
- Tires will naturally lose at least one pound of air per month so check pressure regularly

# Replace Air Filter as Necessary

- A badly clogged air filter cause reduce fuel economy by 10%



# Engine Tuneups

- Tuneups important, but not necessary as frequently as they used to be
- Can improve MPG up to 20% if badly out of tune

# Beware Fuel Saving Devices !

- To check for tests of fuel saving devices, go to [www.gov/otaq/consumer.htm](http://www.gov/otaq/consumer.htm)
- Be very skeptical of any of these devices; EPA has tested over 100 and found very few that provide any fuel economy improvement
- If not an EPA tested product, be very, very skeptical

# Buying a New car?

- When replacing a vehicle, see if it can be downsized; 8 cylinder engine to 4 cylinder; full size to midsize, etc..
- The difference between a car getting 20 MPG vs 30 MPG; at \$3.00/gallon: save \$750 per year on fuel costs if you drive 15,000 miles per year
- Consider gas/electric hybrid. Federal tax rebates: see [www.eere.energy.gov/afdc/progs](http://www.eere.energy.gov/afdc/progs)
- Example 2008 Ford Escape 2WD Hybrid: \$3000
- Stay tuned for new “Plug In” hybrids in 2010, new small diesel engines for passenger cars, and other new technologies

## Clearwater, Florida

### **Solid Waste/General Services**

All vehicles will be shut down when in line at the Transfer Station, when waiting at Fleet Maintenance, parked for more than 5 minutes.

No tractor-trailers will be idling while staged for loading at the Transfer Station.

### **Police**

Require all Patrol units to turn engine off 15 minutes every hour unless emergency exists.

### **Public Works**

No idling of vehicles when parked.

### **Public Utilities**

Eliminate idling in all vehicles.

### **Fire**

Consider shutting down on-scene vehicles unless actively engaged in operational responsibilities.

### **CLEARWATER GAS**

Turn vehicle engines off when the vehicle is parked.

### **Parks & Recreation**

Vehicles will not idle when parked or vehicle sitting and running for air conditioning purposes during breaks.

## CITY OF CONOVER LIMITATION ON ENGINE IDLING POLICY

Effective October 1, 2006

### SEC. 1. FINDINGS AND PURPOSE

The City of Conover Fleet Maintenance finds that:

1. Air pollution is a major health concern in the Unifour as it is in many metropolitan areas of the United States. These air pollution problems are caused in large part by emissions from automobiles and trucks. Air pollution can cause or aggravate lung illnesses such as acute respiratory infections, asthma, chronic bronchitis, emphysema and lung cancer. In addition, diesel emissions have been identified as an issue that disproportionately affects low-income urban neighborhoods. Evidence suggests that diesel exhaust, particularly particulates, contributes to this urban health problem.
2. Exhaust from vehicles (both on- and off-road) is a substantial source of carbon monoxide, toxic air contaminants and greenhouse gases.
3. A study of idling exhaust emissions conducted by the U.S. Environmental Protection Agency (EPA420-R-02-025, October 2002) indicates that the typical 1980s – 2001 model year truck operating on diesel fuel emits 144 grams per hour of nitrogen oxide and 8224 grams per hour of carbon dioxide emissions and consumes 0.82 gallons of fuel per hour while idling.
4. Turning off and starting an engine uses less fuel than letting the engine run for thirty seconds.
5. Modern vehicles need a maximum of 30 seconds of idle at start up. The best way to warm up a vehicle is by driving it.
6. Engine wear is greater at prolonged idle than during normal operation.
7. The City of Conover can play an important role in improving air quality and reducing the consumption of petroleum products by limiting the amount of time vehicle engines are allowed to idle within its jurisdiction.
8. Under this Policy, a Limitation on Engine Idling is established by the City of Conover to discourage the idling of local government vehicle engines.

### SEC. 2. DEFINITIONS

1. "Driver" means any person who drives, operates, or is in actual physical control of a vehicle.
2. "Emergency" means a sudden, urgent, usually unforeseen, occurrence.

3. "Equipment Operator" means any person who is in actual physical control of a piece of off-road equipment.
4. "Gross Vehicle Weight Rating" means the weight specified by the manufacturer as the loaded weight of a single vehicle.
5. "Heavy-Duty Vehicle" means any on-road motor vehicle with a manufacturer's gross vehicle weight rating greater than 14,000 pounds.
6. "Idling" means the engine is running while the vehicle is stationary or the piece of off-road equipment is not performing work.
7. "Medium-Duty Vehicle" means any on-road motor vehicle with a manufacturer's gross vehicle weight rating of 6,001 – 14,000 pounds.
8. "Official Traffic Control Device" means any sign, signal, marking or device placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning or guiding traffic, but does not include islands, curbs, traffic barriers, speed humps, or other roadway design features.
9. "Off-Road Equipment" means all non-road equipment with a horsepower rating of 50 or more.
10. "Vehicle" means any on-road, self-propelled vehicle that is required to be registered and have a license plate by the Department of Motor Vehicles.

### **SEC. 3. APPLICABILITY**

There is hereby established a policy to be known as the Limitation on Engine Idling Policy that applies to the operation of all City of Conover vehicles regardless of gross vehicle weight rating, all heavy-duty vehicles regardless of fuel being used, all off-road diesel-powered equipment regardless of horsepower rating and all off-road equipment regardless of fuel being used, except as provided in Section 5.

### **SEC. 4. IDLING LIMITATION**


1. A driver of a vehicle:
  - a. must turn off the engine upon stopping at a destination; and
  - b. must not cause or allow and engine to idle more at any location for:
    - i. more than 30 consecutive seconds; or
    - ii. a period or periods aggregating more than five minutes in any one-hour period.
2. An equipment operator of an off-road piece of equipment not identified in (1) above must not cause or allow an off-road piece of equipment to idle at any location for:
  - a. more than 30 consecutive seconds; or

- b. a period or periods aggregating more than five minutes in any one-hour period.
3. The City of Conover will ensure that vehicle drivers and equipment drivers, upon employment and at least once per year thereafter, are informed of the requirements of this Policy.

## **SEC. 5. EXEMPTIONS**

This Policy does not apply to a vehicle or piece of equipment for the period or periods during which:

1. Idling is necessary while stopped:
  - a. for an official traffic control device;
  - b. for an official traffic control signal;
  - c. for traffic conditions over which a driver has no control, including, but not limited to: stopped in a line of traffic, stopped at a railroad crossing or stopped at a construction zone; or
  - d. at the direction of a policeman or other official traffic controller.
2. Idling is necessary for testing, maintenance, repair or diagnostic purposes;
3. Idling is necessary to ascertain that the vehicle and/or off-road piece of equipment is in safe operating condition and is equipped as required by all provisions of law and established safety policies;
4. the vehicle is not expected to restart due to mechanical or electrical problems;
5. Idling the engine is required to power auxiliary equipment other than a heater or air conditioner, e.g. hoist, lift, computers, safety lighting, air compressor;
6. Idling is necessary to operate defrosters, heaters, air conditioners or other equipment to prevent a safety or health emergency, but not solely for the comfort of the driver or passengers;
7. Idling is necessary to cool down a turbo-charged heavy duty vehicle in accordance with the manufacturer's recommendation.
8. Idling is necessary for fire apparatus operations at a scene of an emergency or other public assistance incident. Fire apparatus operations will be directed by fire department operation policy;
9. Idling is necessary for Police vehicles during traffic stops, accidents, or other emergency situations in order to operate emergency lighting and other police equipment,

<b>City of Delray Beach</b>  	<b>ADMINISTRATIVE POLICIES AND PROCEDURES MANUAL</b>		<b>SUBJECT:</b> <b>No Idling Policy</b>	
	<b>NUMBER</b> PW-1	<b>REVISIONS</b> 0	<b>EFFECTIVE DATE:</b> June 9, 2008	<b>PAGE</b> <b>1 OF 2</b>
	<b>SUPERSEDES</b>	<b>APPROVED BY:</b>  David T. Harden, City Manager		

**PW-1.0 Purpose:**

To inform all City employees of the need to eliminate unnecessary idling of vehicle engines. The goal of this policy is to protect air quality in our community by reducing exhaust emissions, to reduce fuel costs and other vehicle related repair expenses incurred by City vehicles, and to stop the public perception that the City is wasting money by using fuel unnecessarily.

**PW-1.1 Policy:**

It is the policy of the City of Delray Beach to improve the efficient use of vehicle fuels in an effort to control operating costs and emissions. City vehicles will not be permitted to idle unnecessarily. Operators of City vehicles and equipment will adhere to the following guidelines.

- a) Motor vehicles or equipment shall not be permitted to stand unattended until the engine has been turned off, with the ignition off and key removed.
- b) Vehicles shall not be permitted to idle more than 30 seconds while attended.
- c) Vehicles shall not be left idling while parked for the purpose of keeping the cab cool or heated.
- d) Vehicles shall not be left idling while tools, equipment, or passengers are loaded or unloaded.
- e) Vehicle shall not be left idling while refueling.
- f) Start up or cool down periods for turbo-charged diesel engines shall not exceed 3 minutes for warm up and 5 minutes for cool down.
- g) Motor vehicles or equipment shall not be permitted to idle within 100 ft. of a building's fresh air intake.

SUBJECT: No Idling Policy  
NUMBER: PW-1  
PAGE: 2 of 2

**PW-1.2 Exceptions:**

Due to the operational nature of some vehicle and equipment assignments and functions, it is recognized that there is a need for some exceptions to this policy, as noted below:

- a) Emergency Response and Law Enforcement vehicles in the course of responding to and completing emergency calls.
- b) Vehicles that are utilizing PTO driven equipment or operations requiring vehicle powered auxiliary equipment.
- c) Service or repairs being performed to vehicles requiring diagnostic testing.

# City Fort Collins Anti-Idling Policy

City of Fort Collins

## Engine Idling Policy

**PURPOSE** - The City Fort Collins Operation Services Division is requesting the City to adopt a Engine Idling Policy to support Clean Cities efforts and comply with United States Environmental Protection Agency requests to help reduce emissions.

1. The City of Fort Collins is concerned about Air pollution as a major health risk for City of Fort Collins and many metropolitan areas of the United States. These air pollution problems are caused in large part by emissions from automobiles and trucks. Air pollution can cause or aggravate lung illnesses such as acute respiratory infections, asthma, chronic bronchitis, emphysema and lung cancer. In addition, diesel emissions have been identified as an issue that disproportionately affects low-income urban neighborhoods. Evidence suggests that diesel exhaust, particularly particulates, contributes to this urban health problem.
2. Exhaust from vehicles (both on- and off-road) is a substantial source of carbon monoxide, toxic air contaminants and greenhouse gases.
3. A study of idling exhaust emissions conducted by the U.S. Environmental Protection Agency (EPA420-R-02-025, October 2002) indicates that the typical 1980s, 2001 model year truck operating on diesel fuel emits 144 grams per hour of nitrogen oxide and 8224 grams per hour of carbon dioxide emissions and consumes 0.82 gallons of fuel per hour while idling.
4. Turning off and starting an engine uses less fuel than letting the engine run for thirty seconds.
5. Modern vehicles need a maximum of 30 seconds of idle at start up. The best way to warm up a vehicle is by driving it.
6. Engine wear is greater at prolonged idle than during normal operation.
7. The City of Fort Collins employees can play an important role in improving air quality and reducing the consumption of petroleum products by limiting the amount of time vehicle engines are allowed to idle within its jurisdiction.
8. Under this Policy, a Limitation on Engine Idling is established by the City of Fort Collins to discourage the idling of local government vehicle engines.

Page 2

## DEFINITIONS

1. Driver means any person who drives, operates, or is in actual physical control of a vehicle.
2. Emergency means a sudden, urgent, usually unforeseen, occurrence.
3. Equipment Operator means any person who is in actual physical control of a piece of off-road equipment.
4. Gross Vehicle Weight Rating means the weight specified by the manufacturer as the loaded weight of a single vehicle.
5. Heavy-Duty Vehicle means any on-road motor vehicle with a manufacturer's gross vehicle weight rating greater than 14,000 pounds.
6. Idling means the engine is running while the vehicle is stationary or the piece of off-road equipment is not performing work.
7. Medium-Duty Vehicle means any on-road motor vehicle with a manufacturer's gross vehicle weight rating of 6,001 - 14,000 pounds.
8. Official Traffic Control Device means any sign, signal, marking or device placed or erected by authority of a public body or official having jurisdiction, for the purpose of regulating, warning or guiding traffic, but does not include islands, curbs, traffic barriers, speed humps, or other roadway design features.
9. Off-Road Equipment means all non-road equipment with a horsepower rating of 50 or more.
10. Vehicle means any on-road, self-propelled vehicle that is required to be registered and have a license plate by the Department of Motor Vehicles.

## APPLICABLE VEHICLES

There is hereby established a policy to be known as the Engine Idling Policy that applies to the operation of all City of Fort Collins vehicles regardless of gross vehicle weight rating, all heavy-duty vehicles regardless of fuel being used, all off-road diesel-powered equipment regardless of horsepower rating and all off-road equipment regardless of fuel being used, except as provided in the Exemptions area below.

Page 3

## IDLING LIMITATION

1. A driver of a vehicle:
  - a. Must turn off the engine upon stopping at a destination; and
  - b. Must not cause or allow an engine to idle more at any location for:
    - i. More than 30 consecutive seconds; or
    - ii. A period or periods aggregating more than five minutes in any one-hour period.
2. An equipment operator of an off-road piece of equipment not identified in (1) above must not cause or allow an off-road piece of equipment to idle at any location for:
  - a. More than 30 consecutive seconds; or
  - b. A period or periods aggregating more than five minutes in any one-hour period.
3. The City of Fort Collins will ensure that vehicle drivers and equipment drivers, upon employment and at least once per year thereafter, are informed of the requirements of this Policy.

## EXEMPTIONS

This Policy does not apply to a vehicle or piece of equipment for the period or periods during which:

1. Idling is necessary while stopped:
  - a. For an official traffic control device;
  - b. For an official traffic control signal;
  - c. For traffic conditions over which a driver has no control, including, but not limited to: stopped in a line of traffic, stopped at a railroad crossing or stopped at a construction zone; or
  - d. At the direction of a policeman or other official traffic controller.

Page 4

2. Idling is necessary for testing, maintenance, repair or diagnostic purposes;
3. Idling is necessary to ascertain that the vehicle and/or off-road piece of equipment is in safe operating condition and is equipped as required by all provisions of law and established safety policies;
4. The vehicle is not expected to restart due to mechanical or electrical problems;
5. Idling the engine is required to power auxiliary equipment other than a heater or air conditioner, e.g. hoist, lift, computers, safety lighting;
6. Idling is necessary to operate defrosters, heaters, air conditioners or other equipment to prevent a safety or health emergency, but not solely for the comfort of the driver or passengers;
7. Idling is necessary to cool down a turbo-charged heavy duty vehicle in accordance with the manufacturers recommendation.

**CITY OF PLANO POLICIES AND PROCEDURES**

431.000

**Department Name:** Equipment Services  
**Procedure:** Mobile Source Pollution Reduction

**Effective Date:** 6/30/2007

**Revision Date(s):**

**Review: Annual:** 6/30/2007

**I. Purpose**

The purpose of this policy is to establish a uniform idle-reduction, fuel conservation and mobile source pollution reduction program.

The Environmental Protection Agency (EPA) has designated the North Central Texas region as a nonattainment area for the pollutant ozone. Vehicle emissions are a major contributor to ozone formation due to the presence of two key “precursors,” or ingredients, to ozone formation in automobile emissions: nitrous oxides (NOx) and volatile organic compounds (VOCs). Controlling emissions from mobile sources such as cars, light- and heavy-duty trucks, buses, motorcycles, and other vehicles is critical to the success of the region.

**II. Policy**

The City of Plano Mobile Source Pollution Reduction Policy, while acting in accordance with the principles of sustainability, addresses major contributing factors to mobile emissions such as, vehicle cold starts, vehicle idling, hard accelerations, high emitting vehicles, and diesel engines. Implementation of the policy will reduce fuel and repair related costs and mitigate the environmental impact of operating City of Plano vehicles.

**III. Definitions**

Mobile Source – Referring to City owned and/or operated rolling stock as point of origin for pollutants and fuel consumption.

Rolling Stock - Any various readily movable transportation equipment such as automobiles, locomotives, railroad cars, trucks, tractors, mowing equipment, and loaders.

**IV. Procedures**

**A. Appropriate Vehicle and Rolling Stock Utilization**

1. City of Plano fleet vehicles will not be parked with the engine operating (idling) for more than 3 minutes unless it is essential for performance of work or else stipulated.

**CITY OF PLANO POLICIES AND PROCEDURES**

431.000

**Department Name:** Equipment Services  
**Procedure:** Mobile Source Pollution Reduction

**Effective Date:** 6/30/2007

**Revision Date(s):**

**Review: Annual:** 6/30/2007

2. If the vehicle is going to be stopped for more than 3 minutes except in traffic, turn off your engine. A vehicle at idle for longer than 3 minutes uses more fuel than it would take to restart the vehicle.
  3. Employees should reduce the initial “warm up” idling. Start driving after no more than 30 seconds of idling, assuming all precautionary safety, mechanical, and other work related checks have been accomplished.
  4. Re-fueling of non emergency vehicles during Ozone alert day is recommended to be after 10:00 am.
  5. Employees should reduce hard acceleration which highly increases the introduction of Hydro Carbons (HC), the un-burnt fuel particles that are a contributing factor of Mobile Source Pollution.
  6. It will be the practice of the City of Plano to replace high pollution emitting vehicles when their repairs to emission reduction components exceed the current value of the vehicle.
  7. Vehicles and equipment with diesel fuel powered engines shall be replaced with 2007 or newer low emission engines.
  8. Ozone Alert Days: Between May and October, the Texas Commission on Environmental Quality will notify the city of a potential air quality warning. On Ozone Alert Days with Red or Purple levels, the city’s refueling facility will be closed until 10:00 a.m. except in a public safety emergency and Department Heads will be responsible for ensuring the following steps are taken:
    - a. Encourage employees to use alternative means of transportation, if possible, such as ride sharing, mass transit, etc. and to minimize driving as much as possible prior to 10:00 a.m.
    - b. Reschedule meetings that require travel to after 10:00 a.m., when possible.
    - c. Postpone mail runs, pickups and deliveries between city facilities until after 10:00 a.m. In addition, all employees should minimize driving as much as possible prior to 10:00 a.m.
- B. Exceptions to the Idling Policy
1. Emergency vehicles, such as fire apparatus and ambulances while engaged in operational activities.
  2. Vehicles that are required to idle in order to power ancillary equipment mounted on the vehicle without risking damage to the battery, i.e. warning devices, sampler hoists, lift gates, hydraulic equipment or lights.

**CITY OF PLANO POLICIES AND PROCEDURES**

431.000

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3. Police vehicles performing traffic control operations, which must be operating for the warning devices to function.
  4. Vehicles equipped with temperature sensitive equipment.
  5. Vehicles that must be kept at an appropriate temperature for the health and safety of animals, such as City of Plano Police Department K-9s, being transported.
  6. An emergency or law enforcement motor vehicle, particularly when transporting patients, prisoners, victims, or witnesses, or when performing traffic control.
  7. The primary propulsion engine of a motor vehicle providing a power source necessary for mechanical operation, not including propulsion, and/or passenger compartment heating, or air conditioning.
  8. A motor vehicle forced to remain motionless because of traffic conditions over which the operator has no control.
  9. The primary propulsion engine of a motor vehicle being operated for maintenance or diagnostic purposes.
  10. For diesel powered vehicles tasked with making numerous and frequent stops and starts, such as may be required for garbage/recycling pickup or repairing potholes, unless the vehicle is going to idle for more than 15 minutes.
  11. When the use of vehicle heater or air conditioning, at the discretion of the appropriate Department head, is necessitated by outside temperature, weather or other climatic condition.
- C. Compliance with the Policy
1. Reports of violations should be made directly to Equipment Services Manager.
  2. It is the responsibility of each Department head to ensure compliance with policy guidelines.



# City of Decatur Fleet Anti-Idling Policy

## **I. Application of Policy**

The purpose of this policy is to establish guidelines to eliminate the unnecessary idling of City vehicles and other rolling stock as part of an ongoing effort to reduce fuel consumption. This policy statement is applicable to all City employees who have been assigned or operate a City owned vehicle or other rolling stock powered by gasoline and, in limited instances, by diesel. The intent of this policy is to help protect the long-term health and wellness and environmental sustainability of the community and to manage the cost of fuel expenditures.

## **II. Why Idling is a Problem**

An idling vehicle gets 0 miles per gallon. Vehicles with larger engines typically waste more gas at idle than do cars with smaller engines. Idling vehicles produces unnecessary pollution that contributes to climate change, smog and health problems, causes premature engine wear and wastes fuel which increases costs to our taxpayers. It is every City employee's responsibility to minimize fleet operating costs while reducing harmful effects to the environment.

## **III. Appropriate Use of City Vehicles and Rolling Stock**

- i. City fleet vehicles will not be parked with the engine operating for more than two minutes unless it is essential for performance of work.
- ii. Initial "warm up" idling should be minimized. Start driving after no more than 30 seconds of idling, assuming your vehicle's windows are clear.
- iii. If you are going to be stopped for more than 30 seconds, except as required while operating the vehicle in routine traffic, turn off your engine. As mentioned previously, idling a vehicle for longer than 10 seconds uses more fuel that it would take to restart the vehicle.
- iv. Vehicles with diesel engines should not be shut down unless the vehicle is going to idle for more than 20 minutes because stopping and starting a diesel engine numerous times, such as might be required when repairing potholes or picking up garbage/recycling containers, is hard on the engine.

#### **IV. Exceptions to the Policy**

Due to the diverse nature of the City's vehicle fleet, there may need to be exceptions to this Anti-Idling Policy. Subsequently, the provisions of this policy do not apply to:

- i. Emergency vehicles, such as fire trucks, while engaged in operational activities;
- ii. Vehicles that are required to idle in order to power ancillary equipment mounted on the vehicle without risking damage to the battery, i.e., warning devices, sampler hoists, lift gates, hydraulic equipment or lights;
- iii. Public safety vehicles performing emergency operations, but only when the vehicle must be operating for the warning devices or emergency systems to function;
- iv. Vehicles equipped with temperature sensitive equipment;
- v. A public safety vehicle, particularly when transporting patients, prisoners, victims or witnesses, or when performing traffic control;
- vi. The primary propulsion engine of a motor vehicle providing a power source necessary for mechanical operation, not including propulsion, and/or passenger compartment heating, or air conditioning;
- vii. A motor vehicle forced to remain motionless because of traffic conditions over which the operator has no control;
- viii. The primary engine of a motor vehicle being operated for maintenance or diagnostic purposes;
- ix. The primary engine of a motor vehicle being operated solely to defrost a windshield;

**I have read the City of Decatur's Fleet Anti-Idling Policy and agree to its terms as a condition of my use of the City vehicle or other similar equipment:**

**SIGNATURE:**

**PRINTED NAME:**

**TITLE:**

**DEPARTMENT:**

**DATE:**

## Attachment A

### Idling Myths

- i. “The engine should be warmed before driving.” FALSE - Idling is not an effective way to warm up your vehicle. Once a vehicle is running, the best way to warm it up is to drive it. 30 seconds of warming up your vehicle, even in cold weather, is enough. Today’s vehicles are designed to be driven almost immediately.
- ii. “Idling is necessary on cold winter days to ensure that all of the vehicle’s components are warm.” FALSE - Many components of the vehicle (including the wheel bearings, tires and suspension system) will warm up only when the vehicle is moving. Only about 30 seconds of idling is needed to get the oil circulating through the engine.
- iii. “Idling is really only a problem in the winter.” FALSE - Idling is a problem year-round. A recent study revealed that, on any given day in August, Canadians idle their vehicles for a combined total of 46 million minutes per day – equivalent to one vehicle idling for 89 years. The problem is worse in winter, but there’s never a good time to waste fuel and generate greenhouse gas emissions by idling your vehicle.
- iv. “Idling is good for your engine.” FALSE - Excessive idling can damage your engine components, including cylinders, spark plugs and the exhaust system.
- v. “Shutting off and restarting your vehicle is hard on the engine and uses more gas.” FALSE - Frequent restarting has little impact on engine components. More than 10 seconds of idling uses more fuel than restarting the engine.

### Idling Realities

NOT IDLING will let us breathe more easily; help us spare our climate and air; reduce engine wear and tear; and save Decatur money.