

# **Environmental Activities of ABCD**

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**Date: November 28, 2007**

# Fire Apparatus - 2007

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- All new trucks purchased use ultra-low sulphur diesel, with a diesel particulate filter to clean the exhaust discharge.
- Automatic lubrication systems are installed on all 179 trucks – extends the life of expensive components, creates less waste, uses less grease.

# Fire Apparatus - 2007

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- Truck designs are smaller than most resulting in a more fuel efficient vehicle.
- Auxiliary oil filtration system on all trucks extends life of the engine oil and generates less waste oil and filters.
- The main garage has a machine which crushes and removes all residual oil from oil filters, allowing for the recycling of the metal filter.

# Fire Apparatus - 2007

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- Fluid replacement in our apparatus is now dictated by regular oil analysis, and no longer by date or time span, resulting in less oil consumption and waste.
- An engine coolant recovery unit cleans the coolant and permits re-usage, reducing coolant use.
- TFS hybrid Officer vehicles are used for emergency response and future Fire Prevention vehicles will be purchased as


# Operational Fire Fighting

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- In operational fire fighting, dyking and booms are employed at fires to contain the runoff of potential contamination into the water system.
- Fire Services' Hazmat teams are used to control chemical contamination into the environment.

# Retrofit of Fire Stations - 2007

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- Interlocking of heaters in apparatus bays when roll- up doors open.
- Infrared heaters Installed in numerous apparatus bays as an efficient form of heating for this area.
- Temperatures of apparatus bays have been set back during periods of low use to 16 degrees Celsius.
- Thermostats installed to reduce unnecessary energy consumption 

# Retrofit of Fire Stations - 2007

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- Station Heating Boilers have been replaced with high-efficiency boilers and pumps.
- Building envelope sealing includes new weather-stripping.
- Single glazed overhead doors at 37 fire stations have been upgraded to increase the R value.

# Retrofit of Fire Stations - 2007

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- Retrofit of all 81 fire station plumbing fixtures to reduce water flow.
- Installed in 14 stations – pre-mixes hot and cold water to allow for less water consumption.
- All quotation requests are for environmentally friendly preferred products.
- Six solar collectors installed at various stations to heat water

# Retrofit of Fire Stations - 2007

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- Lighting Retrofit Energy Saving lights included linear fluorescent lamps, electronic ballasts, custom fitted reflectors, high intensity discharge lamps, and exit signs in all four commands.
- Fluorescent bulb recycling in all four commands.

# Retrofit of Fire Stations - 2007

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- Natural Gas Emergency Generators  
Installed at 212, 116, and 435 – replace the old, costly diesel generators and now have the ability to power the entire station in the event of power loss.
- Three West Command stations have had costly electric water heaters replaced with gas-fired domestic heaters for improved thermal efficiency.

# 2008 Goals

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- Testing of an Eco-friendly parts washing machine planned implementation at main garage. System uses a warm water-based formula, charged with an enzyme that eats oil.
- Resulting in eco friendly waste.

# 2008 Goals

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- Fire fighters will have access to shared network drives which reduces the need to print information – the information will be accessible from station to station via the network.
- Green bin curbside collection will be provided by 2009 to Fire Stations to meet City's curbside pick-up policy.

# 2008 Goals

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- Toronto Fire Services will advocate for the use of residential fire sprinklers for faster containment of fires, decreasing the harmful toxins into the environment.
- In the 2007 budget there is a \$270,000 estimated savings from the energy retrofit program, and the full year impact savings in 2008 is estimated at \$295,000.