

## Electric vehicles

By BRIAN LOCKHART

Do you remember the Hagersville tire fire?

That was quite the fire that happened back in 1990 near Hagersville, Ontario.

It was a nightmare of a blaze for local firefighters. There was a pile of 14 million used tires covering an area the size of eight football fields.

The air was filled with thick black highly toxic smoke that caused the evacuation of around 4000 nearby residents.

In all, around 250 firefighters were involved in the fire fight and it cost the province more than \$15 million to extinguish the flames in a giant pile of rubber.

At first, authorities announced that this pile of tires may be burning for years. Apparently when rubber starts to burn, throwing water or foam on the flames is almost futile ? the rubber still continues to burn and tires below the surface still smolder and release toxic chemicals that are the result of the breakdown of synthetic rubber compounds.

The fire in this small Ontario town became international news.

Many countries had huge tire dumps and they took notice of what was happening.

In the end it took 17 days to actually put the fire out and they didn't do it by using their fire hoses.

They knew this fire would continue to eat its way through the pile until there was no fuel left ? and that would take years.

The solution was to use backhoes and bulldozers to isolate the piles of burning material and extinguish each small pile. The plan worked and after more than two weeks of continuous work they were successful in dousing the final flames.

What this fire did was bring awareness to the fact that used tires don't simply disappear.

Before this fire most people never gave much thought to it. We all knew that old automobiles could be crushed and the metal re-used but few people realized that there wasn't much you could do with an old tire other than to toss it in pile somewhere.

Because of this fire, laws and regulations regarding used tires were enacted both in Canada and in other countries around the world.

A friend of mine's father-in-law owned a farm and he rented out the house and property. When the tenant finally decided to leave and they went out to check out the condition of the property they found thousands of tires around the the farm.

The tenant had allowed, they presume local scrap dealers, to use the property as a dumping ground for the unwanted rubber.

My friend spent weeks of back-breaking labour helping his father-in-law clean up the mess.

Now that electric cars are beginning to take over a larger share of the auto market ? some countries have pledged to eliminate internal combustion engines over the next several years ? we are going to be seeing millions and millions of large car batteries on the road.

Batteries don't last forever and neither do cars.

Sooner or later all those cars and their batteries will end up on the scrap pile. Currently the batteries used to power electric cars have a life of around seven years.

After those years are up, replacing the batteries won't be a viable option ? you'll have to get a new car.

I've taken a few electric vehicles for a test drive and was really impressed by the power, the torque, the quiet ride, and especially the fact that there are almost no moving parts at all.

You'll never have to visit your mechanic to replace your fan belt, fuel pump, water pump, exhaust system, radiator, or spark plugs. With regenerative braking, you may have to replace your brake pads once, if at all during the life of the car.

Manufacturers claim that car batteries can be recycled with the metals reclaimed and reused. However there has to be companies in business who wants those old batteries and know what to do with them.

I have researched countless websites looking for information regarding proper disposal of all these batteries, including government websites.

I have found a lot of information on the benefits of driving an electric car in terms of reducing emissions, but hardly anything, if anything on what we are going to do with millions and millions of lithium-ion batteries that will be nothing more than scrap in a few years.

In Europe, so far, only five per cent of electric car batteries have actually been recycled at the end of their useful life.

If they want us to start driving electric vehicles, they must come up with a realistic and workable plan to properly dispose of all these batteries when the time comes.

If they don't, we may once again find a small town on the international radar but this time because it has become a highly toxic environmental nightmare as a battery dump.