

EXTRACTIONS



a newsletter from O'CONNOR ASSOCIATES

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GOOD NEWS DEPARTMENT

In a New Yorker article to commemorate the 25th anniversary of Earth Day, April 22, 1995, Gregg Easterbrook documents some positive environmental trends and says, "... environmental regulations, far from being burdensome and expensive, have proved to be strikingly effective, have cost less than expected, and have made the economies of the countries that put them into effect stronger, not weaker." Among the improvements he notes in the USA:

- Since 1970, smog has declined in Los Angeles 50% while the number of vehicles increased by 65%.
 - Nationwide airborne levels of lead have decreased by 98%.
 - Annual carbon monoxide emissions have decreased by 24%, sulphur dioxide by 30%, and fine soot by 78%.
 - In 1972, only a third of bodies of water in the US were safe for fishing and swimming; today almost two thirds are safe.
 - Between 1988 and 1992, American industry's toxic emissions fell 35%.
 - Recycling, a major growth industry, is now converting more than 20% of America's municipal waste into useful products.
 - Fuel efficiency gains have reduced the typical car's annual gasoline consumption by around 300 gallons.
- "... the notion of impending doomsday is about to expire. We are about to become environmental optimists."

[from *The New Yorker*, April 10, 1995, p. 38-43]

TALL OIL AS FUEL ADDITIVE

Arbochem Inc. of Vancouver is marketing Arbo-Tane, a new additive for diesel fuel derived from tall oil, a former nuisance by-product of the Kraft pulping process. Arbochem has patented the process CANMET developed that converts tall oil into a C10 enhancer for diesel and gasoline. This additive increases fuel economy by up to 5%, when mixed with regular diesel. Its low sulphur content also reduces NO_x, particulate, aromatic HC, and CO emissions.

[from *The Insider*, ESAA, May, 1994]

HORIZONTAL WELLS

The Port Authority of New York and New Jersey has completed a demonstration project aimed at cleaning up jet fuel contamination at JFK international airport. Although several similar projects have been conducted at US military bases, this may be the first use of horizontal wells for remedial purposes at a commercial airport.

Rather than tear up the runways with trenches, the Authority drilled three 200-foot long horizontal wells under the tarmac to evaluate combinations of soil vapour extraction, groundwater recovery, and air sparging to remove jet fuel components through volatilization and microbial degradation. The Port Authority will use information gained from this project to guide a large-scale remediation program for all airports in the New York City area.

[from *Ground Water Monitoring and Remediation*, Winter 1995]

NEW USE FOR BAKING SODA

Baking soda may eventually be used to clean uranium-contaminated soil. Don York, a researcher at Los Alamos National Laboratory, found that a soda solution can leach out 92 percent of the radioactive material.

[from *Business Week*, November 14, 1994]

INSURING HARMONY

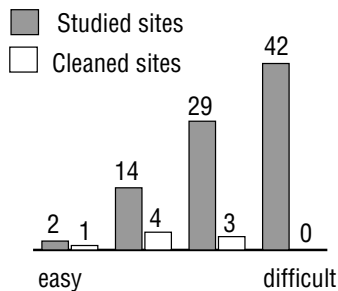
Harmonizing environmental policies among governments will make it easier for insurers to assess risk and provide appropriate coverage, says Angus Ross, chair of the Insurance Bureau of Canada's *Committee on Environmental Liability*. In addition, his report recommends national standards for storage tanks, management of hazardous wastes, remediation of contaminated sites, waste-water management, and pollution prevention.

[from *Environmental Digest*, Vol. 5, No. 22, October 26, 1994]

DON'T DRINK THE WATER JUST YET

A panel of experts convened by the US National Research Council reports that returning groundwater to drinking water standards using current technologies is impractical at many contaminated sites. Even with enhanced pump-and-treat methods, air sparging, and in-situ bioremediation, full restoration of sites with severe contamination may not be possible. However, reaching less stringent goals — such as cleaning up areas containing dissolved contaminants and installing containment systems around areas with undissolved contaminants that cannot be removed — may be possible at most sites.

The panel reviewed information from 87 sites where pump-and-treat systems are operating. In the four categories of sites from easy-to-clean to difficult-to-clean, panel members found that only 8 have met clean-up goals so far, although a few more may meet them in the future.



[from *HazTECH News*, July 14, 1994]

MONSTER LANDFILL IN B.C.

The criteria for a good landfill site includes substantial capacity, protection of the water table, visual removal from residential areas, proximity to efficient transportation, and cost effectiveness for the landfill customer. Michael Hayes, Industrial Technology Advisor for *Environmental Services Association of Alberta*, reports that the open pit at the Island Copper Mine on the northern tip of Vancouver Island fulfils all those criteria.

The mine pit extends over 200 hectares and is 400 metres deep, large enough to handle all of B.C.'s waste (2.5 million tonnes per year) for about 150 years. The mine's geological setting provides a leachate barrier, and the nearest populated areas are six kilometres away. Container barges will bring waste to a nearby marine terminal; from there it will be trucked to the landfill.

[from *The Insider*, ESAA, November 1994]

COMPARING CANADIANS AND EUROPEANS

How do Canadian companies' environmental practices compare to those of their European counterparts? A recent report from a government study coordinated by Ernst Young says that while Canadian companies are good at conducting "environmental audits" of their policies, they are not so good at changing those policies. Also, while Canadian firms have environmental policies, procedures, and risk assessment methods, most do not have employee training programs, incentives to improve environmental management, or environmental performance-review procedures. The study compared Canadian companies with those in Britain, France, Germany, and Netherlands and found:

- More than 80 percent of the Canadian companies conduct in-house environmental reviews, with 72 percent saying they did so under pressure from government regulations.
- Community concerns rank low for the Canadians as a reason for worrying about the environment; more important reasons were the desire to improve performance and "pressure from head office."
- European companies, by contrast, do far less environmental auditing; for example, only 19 percent of German firms do systematic, regular reviews.
- Europeans tend to aim for broader environmental goals than the Canadians, citing growing public awareness and marketing possibilities.

[from the *Regina Leader Post*, October 4, 1994]

A CANADIAN FIRST

The South Don Roadway is reported to be Canada's first road paved with asphalt containing soil contaminated with oil and gasoline. The Toronto Economic Development Corporation put up \$275 000 for the pilot project. Contaminated soil from a nearby property, a former Texaco refinery, was mixed with limestone and asphalt emulsion. Although the process cost \$38 a square metre it eliminated the \$22 a square metre cost for excavating and disposing of the contaminated soil. Conventional asphalt costs \$30 a square metre.

[from the *Toronto Sun*, September 1, 1994]

In 1981, Canada was using about 1.5 billion cubic metres of ground water, enough to fill a canal from St. Johns, Newfoundland, to Victoria, British Columbia, 100 feet wide and 25 feet deep.

from *NGWA Information Resources Department*

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