



TORONTO STAFF REPORT

March 16, 2005

To: Board of Health
From: Dr. David McKeown, Medical Officer of Health
Subject: Curbing Transboundary Air Pollution

Purpose:

To provide an update on efforts to curb transboundary air pollution from coal-fired power plants in the United States.

Financial Implications and Impact Statement:

There are no financial implications arising from the adoption of this report.

Recommendations:

It is recommended that the Board of Health:

- (1) recommend that City Council request the Premier of Ontario to give high priority to transboundary air pollution matters, including:
 - (a) assessing the impacts of continued operation of old coal-fired power plants in the U.S. on the health of Ontario residents and environmental quality;
 - (b) assessing the potential health and environmental impacts of the proposed U.S. *Clear Skies* legislation on Ontario; and
 - (c) making the health and environmental impacts of transboundary pollution known to appropriate elected officials and government agencies in the U.S., and request that these impacts be mitigated as quickly as possible;
- (2) forward this report to the federal Minister of the Environment, and the Ontario Ministers of Health and Longterm Care, Environment, and Energy for their information and action as appropriate;

- (3) forward this report to all Ontario Boards of Health, the Association of Local Public Health Agencies, the Ontario Public Health Association, the Ontario Medical Association, the Ontario Clean Air Alliance, and Toronto's Roundtable on the Environment; and
- (4) the appropriate City Officials be authorized and directed to take the necessary action to give effect thereto.

Background:

The United States of America (through its Justice Department), eight state governments and a number of environmental nongovernmental organizations in the U.S. are engaged in a lawsuit against nine coal-fired power companies operated by the American Electric Power (AEP) Corporation. The plaintiffs contend that AEP made major modifications to their plants, thereby increasing pollutant emissions, but have not added modern emission control technology to their facilities, in contravention of the U.S. *Clean Air Act*.

At its meeting of February 1, 2 and 3, 2000, City Council authorized the City Solicitor and the Medical Officer of Health to submit an application to become a *Friend of the Court (Amicus Curiae)* in the U.S. legal action against AEP. In September 2001, the American court granted Toronto *Friend of the Court* status. The court case has advanced to the stage where a trial date has been set for June 2005. The City Solicitor anticipates being able to make a submission to the Ohio District Court (Southern District, Eastern Division) on behalf of the City of Toronto that supports the position of the American government and citizen plaintiffs. This phase of the litigation will examine violations of the U.S. *Clean Air Act* by the nine coal-fired power plants subject to the lawsuit.

This report was prepared in consultation with the City Solicitor and provides an overview of the legal case and its relevance to Toronto as well as highlights from the more detailed report "Curbing Transboundary Pollutants: Protecting Health through Legal Action" (Attachment 1).

Comments:

Coal-fired power plants are significant contributors of smog pollutants, green house gases and mercury. A major American study concludes that fine particle pollution from U.S. coal-fired power plants cuts short the lives of nearly 24,000 people each year, including 2,800 from lung cancer. While a similar analysis is not available for impacts on Canadians, it is known that air pollution in Toronto gives rise to considerable illness and reduced life expectancy. Each year, about 1,700 premature deaths and 6,000 hospitalizations of Toronto residents are attributable to air pollutants, a portion of which originates from old and dirty coal-fired power plants still operating in the U.S.

In addition to the health burden, a recent study examining the economic consequences of mercury toxicity on the human brain determined that the resulting lost productivity attributable to mercury emissions from U.S. power plants cost the U.S. economy \$1.6 billion each year.

As much as half of the pollution that Torontonians experience during smog alerts comes from American sources. Coal-fired power plants on both sides of the Canada-U.S. border are significant contributors to poor air quality. Of particular concern are older plants built before the availability and widespread use of modern pollution control equipment. Toronto's concerns are heightened by actions to extend the life of many old American plants without investing in pollution control technology or phasing out coal burning altogether. In contrast, Ontario has committed to phasing out the use of coal at its power plants by 2007. Furthermore, provincial regulation is in place that requires the Lakeview power plant located in the Greater Toronto Area to stop using coal to generate electricity by April 30, 2005.

The U.S. *Clean Air Act* was enacted to protect air quality and promote public health, and to ensure that pollution from new and modified emission sources would be controlled by state of the art technology. Congress "grandfathered" old plants built prior to enactment of the *Clean Air Act* such that they were not required to implement state of the art pollution controls unless the plants were modified. "Modification" is defined as any physical change in a facility, or its method of operation, which increases the amount of any air pollutant emitted by that facility. Modifications were to exclude routine maintenance, repair and replacement. Plants are known to have extended their normal operating lifetime by replacing major components such as boilers. The *Clean Air Act* requires that when such major modifications are made to plants, modern pollution control technology must be used to limit plant emissions.

The legal case against AEP is at the stage where the American government and citizen parties are submitting information to the courts and preparing for the trial phase. The City Solicitor, in conjunction with the Medical Officer of Health, is monitoring the current situation and will determine the best time and mechanism for submitting information to the courts in support of the plaintiffs. The court case focuses on nine of AEP's coal-fired power plants upwind from affected communities, including Toronto. These plants were built before the introduction of the U.S. *Clean Air Act* and have undergone major reconstruction, resulting in an increase in their annual air emissions. The hourly pollutant emission rates per unit of electricity produced from these American plants are considerably greater than the emission rates from Ontario coal-fired plants that also impact on Toronto's airshed.

If the court rules that AEP violated the *Clean Air Act*, then the next phase of the legal proceedings will determine what the remedy should be. The participation of the City of Toronto will be particularly relevant at that stage of the litigation since it will help establish what AEP needs to do to comply with the *Clean Air Act*, reduce emissions, and thereby lessen its adverse impact on communities downwind.

It is estimated by U.S. sources that ensuring compliance with the *Clean Air Act* would reduce nitrogen oxides (NO_x) and sulphur dioxides (SO₂) from the plants subject to litigation by about 75% to 90%, depending on the facility and pollutant. Such major reductions in emissions from these point sources would lessen transboundary pollution levels currently reaching southern Ontario. By participating in the lawsuit as a *Friend of the Court*, the City of Toronto hopes to bring to the attention of the American court its concern about health impacts associated with old and dirty power plants still operating in the U.S. A successful outcome from the litigation could

lead to significant improvements in Toronto's air quality year round, and likely reduce the frequency and severity of smog episodes.

Although the current litigation that Toronto is involved in is still before the courts, a very recent decision regarding similar litigation involving old coal-fired power plants in Illinois is relevant. On March 7, 2005, the U.S. Department of Justice, the U.S. EPA and the State of Illinois announced the settlement of their major *Clean Air Act* case alleging that the Illinois Power Company (and its successor Dynegy Midwest Generation) violated the New Source Review provisions of the *Clean Air Act*. New Source Review provisions require that grandfathered plants install modern pollution control technology at the time that modifications are made to a plant which would otherwise result in increased pollutant emissions. The U.S. federal government and other parties first initiated their lawsuit against Illinois Power in 1999. The recent settlement will reduce SO₂ and NO_x emissions from five Illinois power plants by 54,000 tons each year through the installation of \$500 million worth of pollution control measures. In addition, Dynegy will pay a \$9 million civil penalty and spend \$15 million in projects to mitigate the harm caused by unlawful emissions (U.S. EPA, 2005).

While the recent settlement with five major coal-fired power plants in Illinois is a very encouraging decision that reinforces the need to comply with the intent of the *Clean Air Act*, including the New Source Review requirements, the current debate in the U.S. Senate over proposed amendments to the *Clean Air Act* through implementation of *Clear Skies* legislation is cause for concern. The new *Clear Skies* legislation, if passed as proposed, would permit old and dirty coal-fired power plants to operate for many more years (likely until 2018) before they would be phased out or required to install best available pollution control technology. Because of this concern, the Ontario Medical Association and many Ontario Medical Officers of Health have recently requested the Senate Committee reviewing the *Clear Skies* legislation to forward it to the Foreign Relations Committee so that it may be assessed with respect to transboundary issues and possible adverse impacts on Canadians.

Given the prevailing winds that blow from the southwest, coal-fired power plants in the U.S. adversely impact on air quality in communities throughout Ontario, not just Toronto. As such, there is a need for the Premier of Ontario to give high priority to transboundary air pollution matters and advocate for mitigation of U.S. pollution sources as quickly as possible.

Conclusion:

The City of Toronto continues to participate as a *Friend of the Court* in a U.S. case against AEP, which operates many coal-fired power plants. The court case focuses on nine old AEP plants built before 1970 that continue to operate without having invested in modern pollution control equipment, contrary to the intent of the U.S. *Clean Air Act*. If the court rules that AEP must comply with the *Clean Air Act*, significant reductions in power plant emissions are likely, resulting in improvements to Toronto's air quality and better protection of the health of its residents. In a separate but related development, the U.S. Congress recently held hearings on *Clear Skies* legislation, which proposes to amend the *Clean Air Act*. Concerns have been raised that if the new *Clear Skies* legislation comes into effect as proposed, older coal-fired power

plants could continue to operate for many more years without being required to install state-of-the-art pollution control technology. There is a need for the Premier of Ontario to give high priority to transboundary air pollution matters.

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List of Attachments:

Attachment 1: Curbing Transboundary Pollution: Protecting Health Through Legal Action