
ORAL ARGUMENT SCHEDULED FOR NOVEMBER 9, 1999

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

**No. 98-1497 (and consolidated cases)
(NO_x SIP Call)
(Complex)**

STATE OF MICHIGAN, *et al.*,

Petitioners,

v.

U.S. ENVIRONMENTAL PROTECTION AGENCY,

Respondent.

**On Petition for Review of Final Rule of the
United States Environmental Protection Agency**

**BRIEF OF *AMICUS CURIAE* GOVERNMENT OF CANADA
IN SUPPORT OF RESPONDENT AND AFFIRMANCE OF RULE**

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July 14, 1999

**IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT**

State of Michigan, <i>et al.</i> ,)	
)	
Petitioners,)	
)	
v.)	No. 98-1497 and
)	consolidated cases (Complex)
United States Environmental)	
Protection Agency,)	
)	
Respondent.)	
)	
)	

CERTIFICATE AS TO PARTIES, RULINGS, AND RELATED CASES

Pursuant to D.C. Circuit Rule 28(a)(1), *amicus curiae* Government of Canada provides the following information as to parties, rulings and related cases:

1. Parties, Intervenors and Amici

Because this case involves direct review of informal rulemaking, the requirement to furnish a list of parties, intervenors and *amici* that appeared below is inapplicable. All parties, intervenors and *amici* appearing in this Court are identified in Petitioners' Joint Brief, filed April 2, 1999, except that Inter-Power/AhlCon Partners, L.P. was dismissed from this case on June 29, 1999.

2. Rulings Under Review

U.S. EPA, “Findings of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone; Rule,” 63 Fed. Reg. 57,356 (October 27, 1998) (NOx SIP Call).

3. Related Cases

Pursuant to this Court’s Order of March 19, 1999, all related cases have been consolidated with No. 98-1497.

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* There are no authorities upon which we chiefly rely.

GLOSSARY OF ABBREVIATIONS

CDN	Canadian
EPA	Environmental Protection Agency
NO _x	Nitrogen Oxides
NO _x SIP Call	Findings of Significant Contribution and Rulemaking for Certain States in the Ozone Transport Assessment Group Region for Purposes of Reducing Regional Transport of Ozone; Rule, 63 Fed. Reg. 57,356 (October 27, 1998).
ppb	Parts Per Billion
SIP	State Implementation Plan
VOC	Volatile Organic Compound

STATUTES AND REGULATIONS

Applicable statutes and regulations are contained in the Addendum to the Brief of Respondent.

ARGUMENT

The Government of Canada respectfully urges the Court to uphold the EPA NOx SIP Call published October 27, 1998 requiring additional controls on the emissions of nitrogen oxides (NOx) from 22 States and the District of Columbia. Canada's brief will show that these emissions contribute significantly to NOx and ozone levels in Canada and have an adverse impact on the health of Canadians and on Canada's ability to attain its own air quality objectives and standards. Canada's experience reinforces the conclusion that there is a rational basis for the EPA NOx SIP Call.

Identity, Interest and Source of Authority to File

The Government of Canada, the sovereign governing entity for Canada, derives its authority to file this *amicus curiae* brief from the Court's Order of March 19, 1999. Canada has a well-established interest in the U.S. air quality regime, an interest that both the U.S. Congress and Executive Branch have long recognized. Section 115 of the U.S. Clean Air Act requires EPA to control transboundary pollution if it finds that it may "endanger public health or welfare" in Canada. 42 U.S.C. § 7415. This requirement has been part of the Act since 1965. *See* H.R. Rep. No. 899, 89th Cong., 1st Sess., *reprinted in* 1965 U.S.C.C.A.N. 3613.

In 1991, Canada and the United States entered into a joint Air Quality Agreement that obligates each country to notify the other of actions taken that are likely to have a significant impact on the transboundary flow of emissions and to “coordinate” their air pollution monitoring activities. Agreement Between the Government of Canada and the Government of the United States on Air Quality (March 13, 1991), Art. V(2), Annex 2. The Agreement incorporates both the spirit of Section 115 and the rule of international law that protects a country from environmental damage caused by activities in a neighboring country. *Trail Smelter Arbitral Tribunal*, 35 Am. J. Int’l L. 684 (1941); Principle 21, U.N. Conference on the Environment, U.N. GAOR, 27th Sess., Supp. No. 30, U.N. Doc. A/8730 (1973). In September 1999, the two countries will begin negotiating an annex to the Agreement aimed specifically at controlling ground-level ozone.

Canada also filed submissions on three separate occasions when the NO_x SIP Call was under consideration by EPA to let EPA know about the significant health effects in Canada caused by U.S.-generated NO_x emissions. These comments are part of the administrative record in this case. *See* EPA Docket No. A-96-56-IV-D-242 (March 9, 1998), EPA Docket No. A-96-56-IV-G-37 (March 16, 1998), and EPA Docket No. A-96-56-V-H-17 (June 23, 1998).

Canada’s comments in the record demonstrate that Canada will not be able to attain its own air quality objectives and standards if the NO_x SIP Call is not upheld.

Health and Environmental Impacts of Ozone

The adverse health and environmental impacts of ground-level ozone are well known. EPA found that these include (i) decreased lung function, primarily in children who are active outside the house, (ii) increased hospital admissions and emergency room visits to treat respiratory problems such as asthma, (iii) possible long-term lung damage and premature death; and (iv) damage to crops, forests and ecosystems. 63 *Fed. Reg.* at 57359.

Epidemiological studies in Canada confirm EPA's findings. In southern Ontario, studies conducted over a six year period by Burnett, *et al.* found that increases in ambient ozone levels of up to 50 parts per billion (ppb) triggered a five percent increase in hospital admissions for asthma, bronchitis, and other respiratory problems on days immediately following the high ozone episodes. 65 *Envtl. Res.* 172 (1994).

Overall in Canada, ozone and other common air pollutants are estimated to cause as many as 16,000 premature deaths each year. Nitrogen dioxide, a major component of NO_x, is one of the pollutants most strongly linked to premature mortality in Canada. Supporting Documentation for the March 1998 Submission of Government of Canada to the EPA Record, Docket No. A-96-56-IV-G-37 (March 16, 1998) ("Canadian Submission to EPA Record") at 7.

Canada's NO_x and Ozone Control Program

In an effort to reduce or eliminate these health effects, the 1988 Canadian Environmental Protection Act, which contained previous legislative authority to establish environmental objectives, reaffirmed a maximum nationwide one hour ozone objective of

82 ppb. R.S.C. 1985, c. 16 (4th Supp.). This objective is more stringent than the U.S. one hour ozone standard of 120 ppb and the EPA's new eight hour ozone standard of 85 ppb. Submission filed by Government of Canada (March 11, 1997), EPA Docket Nos. A-95-54-IV-D-2339 and A-95-58-IV-D-2508. Following passage of the federal legislation, a federal-provincial NOx/VOC Management Plan for ground-level ozone was put in place to implement the 82 ppb objective by 2005. Canadian Submission to EPA Record at 6.

When fully implemented, the Canadian program for controlling NOx and volatile organic compound (VOC) emissions will achieve a nationwide 25% reduction in NOx emissions and a nationwide 26% reduction in VOC emissions. Government of Canada Phase 2 Federal Smog Management Plan (Nov. 1997) ("Smog Management Plan") at 3-4, 55, 58, <<http://www.ec.gc.ca/phase2/index.html>>. The control program is estimated to cost more than \$850 million Canadian ("CDN") per year, or approximately \$34 CDN per capita. *Id.* at 12. On a per capita basis, Canada's financial commitment exceeds the estimated per capita cost of implementing the NOx SIP Call, 63 *Fed. Reg.* at 57478, and demonstrates that Canada has indeed made a serious commitment to control its own sources of NOx and VOC emissions.

Impact of U.S. Emissions upon Canada

Unfortunately, because of the substantial flow of NOx emissions from the United States into Canada, the Canadian program alone cannot attain ground-level ozone standards and objectives in Canada, nor can it fully eliminate the adverse health effects of ground-level ozone in Canada. Of the 23 million tonnes of NOx contributed yearly by the United

States and Canada to their common airshed, some 21 million tonnes, or 91% of the total, come from the United States. The remaining 9% is of Canadian origin. Canadian Submission to EPA Record at 3. These NOx emissions travel as much as 300 miles before decaying to one-third of the original concentration. *Id.* at 6.

Recent ozone modeling runs performed for the Canada–U.S. Air Quality Committee show how this transboundary flow affects specific locations in Canada. In London, Ontario, 55% of NOx observed in the ambient environment is from U.S. sources; in Montreal, approximately one-third of NOx is of U.S. origin; and in Saint John, New Brunswick, more than 75% of observed NOx levels come from sources in the United States. Canadian Submission to EPA Record at 9; Smog Management Plan at 18.

If the NOx SIP Call is fully implemented, there would be a sharp reduction in these figures. Modeling results in the EPA docket show that full implementation would reduce ozone exceedances by 29% in Windsor, Ontario; by 33% in London, Ontario; by 25% in Toronto and the areas just north and west of Lake Ontario; and by 56% in the Bruce Peninsula. EPA Docket No. A-96-56-VI-D-25 (August 24, 1998) (figures derived from raw data contained therein).

Additional joint modeling runs show that implementing the NOx SIP Call will achieve ozone reductions of 6-14 ppb in the corridor stretching from southwestern Ontario to eastern Ontario, and declines of more than 14 ppb in the region surrounding Sudbury, Ontario. Ground-level Ozone: Occurrence and Transport in Eastern North America (March 1999), at 32, <<http://www.epa.gov/oar/oaqps/publicat.html#uscanaq>>.

Thus, the model runs show that the great majority of locations in Canada will be able to attain the objectives and standards of the Canadian control program by 2010 if both the NOx SIP Call and the Canadian NOx and VOC reduction program are fully implemented. Conversely, if the NOx SIP Call is not permitted to take effect, Canada will not be able to attain its air quality objectives and standards by full implementation of its own program alone.

CONCLUSION

EPA reached its conclusion that midwestern emissions “contribute significantly” to nonattainment in downwind states after performing its own technical analysis of air quality contributions made by upwind states, and after reviewing the model runs and the technical findings of the Ozone Transport Assessment Group. 63 *Fed. Reg.* at 57381-90; 42 U.S.C. § 7410(a)(2)(D)(i)(I). As this *amicus curiae* brief has shown, U.S. sources of NOx emissions also “contribute significantly” to NOx and ozone levels in Canada. These contributions have an adverse impact on the health of Canadians, and create a much higher burden in achieving the air quality objectives and standards established pursuant to the Canadian Environmental Protection Act.

Canada believes its own experience and science reinforce EPA’s conclusion about the significant contribution of upwind states and show that EPA’s judgment is sound. Canada therefore urges this Court to conclude that there is “rational connection between the facts found and the choice made” by EPA and to uphold the NOx SIP Call. *See Motor Vehicle Mfrs. Ass’n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

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CERTIFICATE OF COMPLIANCE

I hereby certify, pursuant to Rule 28(d)(1) of the Circuit Rules of this Court, that the foregoing Brief for *amicus curiae* Government of Canada contains no more than 1,500 words, as allowed by this Court's Order of March 19, 1999. This word count was done using a word processing system that includes footnotes, headings and citations in the word count.

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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that on this 14th day of July, 1999, two copies of the foregoing Brief For *amicus curiae* Government of Canada were served by first-class U.S. Mail, postage prepaid, at Washington, D.C. on each of the following:

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