Beyond the Bargaining Table: Canada’s Use of Section 115 of the United States Clean Air Act to Prevent Acid Rain

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INTRODUCTION

The United States and Canadian governments have recognized acid rain⁴ as a serious environmental problem of international dimension. In 1980, the two governments signed a Memorandum of Intent committing them to take immediate action to control transboundary air pollution, and establishing a framework for negotiation of an international air quality agreement.⁵ Canadian negotiators met with United States officials in Washington in February, 1982 to discuss the details of the proposed bilateral agreement.⁶

Recent developments indicate that the United States and Canada may not be able to settle their differences on the sensitive issue of acid rain at the bargaining table.⁷ The Canadian government has criticized the Reagan administration's proposed changes to the United States Clean Air Act⁸ and has also charged the United States with violating the Memorandum of Intent.⁹ As a result, Canada has threatened to take legal action.¹⁰

Canada is considering using section 115 of the United States Clean Air Act¹¹ to force the United States to reduce emissions that

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1. For a definition of acid rain, see infra notes 13-16 and accompanying text.
4. See infra notes 57-72 and accompanying text.
7. 4 INT'L ENV'T REP.: CURRENT REP. (BNA) 1075 (Nov. 11, 1981). See also infra notes 162-64 and accompanying text.
8. 42 U.S.C. § 7415 (Supp. IV 1980). Section 115 provides, in part, that:
(a) Whenever the Administrator, upon receipt of reports, surveys or studies from any duly constituted international agency has reason to believe that any air pollutant or pollutants emitted in the United States cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare in a foreign country or whenever the Secretary of State requests him to do so with respect to such pollution which the Secretary of State alleges is of such a
cause acid rain in Canada.9 Section 115 authorizes the Environmental Protection Agency (EPA) Administrator to require states to revise their air quality plans to eliminate emissions that may reasonably be anticipated to endanger public health or welfare in a foreign country.10 Before the EPA Administrator can order this revision, the endangered country must provide a reciprocal arrangement concerning its own emissions that might adversely affect the United States.11 In 1980, the Canadian Parliament amended its Clean Air Act in an attempt to provide the required reciprocity.12

After defining acid rain and surveying the response of the United States and Canada to this problem, this Note will analyze the viability of Canada's use of section 115. The Note will look at the section's legislative history for a definition of reciprocity. After concluding that this history is not dispositive, the Note will propose an appropriate definition. Finally, the Note will examine Canada's response, at both the provincial and federal level, to the acid rain problem, and conclude that Canada has satisfied the United States' reciprocity requirement.

I

ACID RAIN AND ITS EFFECTS

A. A Brief Explanation of Acid Rain

Acid rain is the deposition of acidic materials from the atmosphere onto the surface of the earth;13 fossil fuel combustion, which
produces sulfur and nitrogen oxides, is its principle cause. The winds are able to carry the sulfur and nitrogen oxides miles from their origin. During atmospheric transport, oxygen reacts with these oxides and transforms them into compounds that make precipitation acidic.

Acid rain has serious environmental consequences; it can dam-

understanding acid rain, see E. Cowling, FROM RESEARCH TO PUBLIC POLICY: PROGRESS IN SCIENTIFIC AND PUBLIC UNDERSTANDING OF ACID PRECIPITATION AND ITS BIOLOGICAL EFFECTS, reprinted in EFFECTS OF ACID RAIN, HEARING BEFORE THE SENATE COMM. ON ENERGY AND NATURAL RESOURCES, 96th Cong., 2d Sess. 46-72 (1980). Acidic materials may fall to the earth independently—a process called dry deposition—or they may combine with water vapor to form sulfuric and nitric acids in precipitation—a process called wet deposition. See Wetstone, AIR POLLUTION CONTROL LAWS IN NORTH AMERICA AND THE PROBLEM OF ACID RAIN AND SNOW, 10 ENVTL. REP. (ENVTL. INST.) 50,001 (Mar. 1980). In this Note, the phrase acid rain will be used to designate both types of acidic precipitation.

The percentage of hydrogen ions in rain determines its acidity. Acidity is measured by a pH scale that has a range from zero to fourteen. The pH of a neutral solution, such as pure water, is seven. A pH below seven indicates acidity; a pH above seven indicates alkalinity. For precipitation to be considered acidic it must have a pH lower than 5.6.


In Canada, steel plants, gas processing plants, and nonferrous ore smelters are the major sources of sulfur dioxide. In the United States, the major source of sulfur dioxide is power generating stations using oil and coal. I. VanLier, supra note 13, at 11. See also LRTAP REPORT, supra, at 4-6. In both countries, the major sources of nitrogen oxides are automobile exhaust, industrial fuel combustion, and thermal power generation. United States-Canadian Relations and Acid Rain, supra note 13, at 22-23. Canada emitted 6.2 million tons of sulfur dioxide into the atmosphere in 1974; the United States emitted 28.4 million tons for the same period. I. VanLier, supra note 13, at 11. “In 1977, sulfur oxides accounted for 14 percent (27.4 million metric tons) of the total air pollution in the United States, while nitrogen oxides accounted for 12 percent (23 million metric tons).” EPA RESEARCH SUMMARY, supra note 13, at 208.

15. Sulfur and nitrogen compounds can travel several hundred kilometers or more through the atmosphere. I. VanLier, supra note 13, at 4. An EPA study states that “precursors to sulfuric acid are known to travel as far as several hundred kilometers per day while in the atmosphere. During transport these pollutants may easily cross geographical and political boundaries. This situation creates numerous national and international regulatory problems…” EPA RESEARCH SUMMARY, supra note 13, at 209. The LRTAP REPORT states that “[a]mple evidence has now been accumulated to show that extended episodes of regional-scale pollution occur over much of eastern North America.” LRTAP REPORT, supra note 14, at 9.

16. Precipitation may be acidified by acids from both natural and man-made sources. During atmospheric transport, sulfur and nitrogen compounds are “oxidized” to form sulfates and nitrates, which eventually “drift down to the Earth independently (a phenomenon termed ‘dry deposition’) or combine with vapor in the air to form sulfuric and nitric acids in precipitation (‘wet deposition’).” Wetstone, supra note 13, at 50,001-02. Oxidation can occur through several complicated mechanisms that depend on numerous factors including the concentration of heavy metals, the intensity of sunlight, and the amount of ammonia present. EPA RESEARCH SUMMARY, supra note 13, at 208.
age lakes, streams, soils, vegetation, forests, and ground water. In the Adirondack Mountains of New York, 228 lakes can no longer support aquatic life because of acid rain and hundreds more are threatened. In Ontario, between 2,000 and 4,000 lakes can no longer support life and approximately 48,000 are threatened.

The impact of acid rain is not confined to the natural environment. In 1978, acid rain in the eastern United States caused two billion dollars of damage to man-made objects. Similarly, a report by the Canadian National Research Council in 1971 stated that sulfur compounds were causing 200 million dollars in damages annually to buildings and property in Canada. Acid rain also damages paints, plastics, and other synthetic materials.

EPA RESEARCH SUMMARY, supra note 13, at 213. See also LRTAP REPORT, supra note 14, at 15-22.

The Canadians are also concerned about the harmful effects acid rain may have on their tourist industry. See 2 INT'L ENV'T REP.: CURRENT REP. (BNA) 763-64 (July 11, 1979); see also infra note 184.
B. Sources of Acid Rain: Who is Responsible?

Canada and the United States contribute to each other's acid rain problem. A United States-Canadian Research Group recently reported, however, that eleven times more nitrogen oxides, and two to four times more sulfur oxides, travel from the United States to Canada than from Canada to the United States.\(^{24}\) Canadian officials claim that at least fifteen million tons of sulfur dioxide emitted in the United States enter Canada annually.\(^{25}\) Canada, however, is not blameless. Recent figures show that twenty-five percent of the acid-causing materials in Vermont and New Hampshire come from Canada.\(^{26}\) United States officials also claim that much of the pollution that causes acid rain in the Adirondack region of New York\(^{27}\) originates in Canada.\(^{28}\)

II THE UNITED STATES RESPONSE TO ACID RAIN

The Clean Air Act is the United States' most comprehensive response to air pollution.\(^{29}\) Although the Act does not deal specifi-
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ally with acid rain, it allows the EPA to address the problem indirectly by formulating and enforcing emission controls and air quality standards. 42 U.S.C. § 7410(a)(1). The state plans must be approved by the EPA. Id. § 7410(a)(2). If a state fails to enforce its plan, the EPA may enforce it. Id. § 7413. If a state fails to submit a plan that meets EPA standards, the Administrator must intercede and prepare a plan for it. Id. § 7410(c)(1). See infra note 33 and accompanying text. In addition, the EPA Administrator must promulgate regulations requiring the assessment and collection of noncompliance penalties. 42 U.S.C. § 7420.

Second, the EPA promulgates specific emission limitations for new and existing sources. Id. § 7411. Thus, the EPA can control new sources directly rather than through state implementation plans. These directly imposed national standards prevent states from attempting to attract new industry by relaxing their emission controls. Wetstone, supra note 13, at 50,007.

Third, the EPA regulates motor vehicle emissions. 42 U.S.C. §§ 7521-7574 (Supp. IV 1980). The EPA Administrator sets emission limits for new motor vehicles or new motor vehicle engines. Id. § 7521. All new automobiles sold in the United States must be certified by the EPA as conforming to these emission limits. Id. § 7525(a)(1). In addition, the EPA Administrator may regulate or prohibit any fuel or fuel additive that he believes "causes, or contributes, to air pollution which may reasonably be anticipated to endanger the public health or welfare, or . . . impair[s] to a significant degree the performance of any emission control device or system which is in general use, or which the Administrator finds has been developed to a point where in a reasonable time it would be in general use . . . ." Id. § 7545(c)(1).

In the 1977 amendments to the Clean Air Act, Congress added a section entitled Prevention of Significant Deterioration of Air Quality (PSD). Id. § 7471. This section is designed to control emissions in regions that have air quality better than that required by the national ambient air quality standards. States must adopt provisions for PSD in their implementation plans. Id. The statute specifies the maximum allowable increases of sulfur dioxide and particulates. Id. § 7473.

One commentator believes that PSD regulation "has only a small and incidental effect on the emission of pollutants which cause acidity to be deposited in clean air regions." Wetstone, supra note 13, at 50,008. The problem, according to Wetstone, is that PSD regulation results in an alteration in the siting of new sources rather than a reduction in overall emissions. Id. at 50,009. It seems that the thrust of PSD regulation is to control increases in emissions of sulfur dioxide and particulates rather than to achieve an overall decrease in emissions.

In the 1977 amendments, Congress also established regulations to reduce and prevent visibility impairment. 42 U.S.C. § 7491(a). Because sulfates and nitrates contribute to visibility impairment, this section should help reduce the load of pollutants that contribute to acid precipitation. I. VANLIER, supra note 13, at 177.

In the 1977 amendments, those areas of the country that did not comply with any NAAQS became subject to Part D, Title I, Plan Requirements for Nonattainment Areas. 42 U.S.C. §§ 7507-7508 (Supp. III 1979). States with nonattainment areas had to revise their State implementation plans (SIPs) to assure compliance with the NAAQS by December 31, 1982. Id. § 7502(a)(1). If a state could prove that attainment for photochemical oxidants or carbon monoxide could not be achieved by December 31, 1982, it could obtain an extension until December 31, 1987. Id. § 7502(a)(2). States that obtained an extension until December 31, 1987 include: Alaska, 40 C.F.R. § 52.82(c) (1982); Colorado, 40 C.F.R. § 52.322(c) (1982); Illinois, 40 C.F.R. § 52.723(a)-(b) (1982); Kentucky, 40 C.F.R. § 52.922 (1982); Maryland, 40 C.F.R. § 52.1072 (1982); Nevada, 40 C.F.R. § 52.1481 (1982); New Jersey, 40 C.F.R. § 52.1572(a) (1982); New Mexico, 40 C.F.R. § 52.1631 (1982); New York, 40 C.F.R. § 52.1672(b) (1982); and North Carolina, 40 C.F.R. § 52.1776 (1982).

The nonattainment area controls should be more effective than the PSD regulations in controlling pollution that causes acid rain. The nonattainment controls, unlike PSD regulations, require a net reduction in the amount of air pollution. Of course, emission levels are higher in nonattainment regions than in PSD regions.
standards. Under the Act, the EPA must promulgate national ambient air quality standards; responsibility for meeting these standards lies primarily with the states. Each state must develop a state implementation plan (SIP) that limits emissions and satisfies national air quality standards. If the EPA Administrator determines that a state's implementation plan will not achieve national air quality standards within a certain period, the EPA must intercede and publish a plan for the recalcitrant state. Thus, the Clean Air Act provides the United States with a federally established and enforceable air quality control system.

The Carter administration took a number of steps indicating that it viewed acid rain as a serious national and international problem. In 1979, President Carter labeled acid rain one of the most serious environmental problems associated with the use of fossil fuels. Carter also established a ten year Federal Acid Rain Assessment Program, which was officially endorsed by Congress in the Acid Rain Precipitation Act of 1980.

30. 42 U.S.C. § 7409(a)(1) (Supp. IV 1980). The Administrator must publish and periodically revise a list of criteria pollutants that may threaten the public health or welfare. Id. § 7408. The Administrator then sets national and secondary ambient air quality standards for those pollutants. Id. § 7409. See supra note 29. Presently, national standards are set for seven pollutants or pollutant combinations, including sulfur and nitrogen dioxides. 40 C.F.R. § 50 (1982). The Act, however, does not directly regulate sulfates and nitrates, the compounds most directly responsible for acid rain. Wetstone, supra note 13, at 50,004.

31. 42 U.S.C. § 7410 (Supp. IV 1980). This section provides that:
  Each State shall, after reasonable notice and public hearing, adopt and submit to the Administrator, within nine months after the promulgation of a national air quality standard... a plan which provides for implementation, maintenance, and enforcement of such primary standard...
  The Administrator shall, within four months after the date required for submission of a plan... approve or disapprove such plan...

Id.

32. Id. § 7410(a)(2)(A). States are allowed three years to attain health-related primary standards, and a "reasonable time" to attain secondary standards. Id. For an explanation of the distinction between primary and secondary ambient air quality standards, see supra note 29.


35. Id. The program provides, in part, for "applied and basic research on acid rain effects, trends monitoring, transport and fate of pollutants, and control measures." Id.

  (1) could contribute to the increasing pollution of natural and man-made water systems;
  (2) could adversely affect agricultural and forest crops;
  (3) could adversely affect fish and wildlife and natural ecosystems generally;
  (4) could contribute to corrosion of metals, wood, paint, and masonry used in construction and ornamentation of buildings and public monuments;
  (5) could adversely affect public health and welfare; and
III

UNITED STATES – CANADIAN COOPERATIVE EFFORTS TO CONTROL ACID RAIN

United States–Canadian environmental relations have been marked by successful attempts to develop cooperative solutions to transboundary pollution. The two countries first confronted the problem of transboundary air pollution more than forty years ago in the Trail Smelter dispute, when sulfur dioxide fumes from a smelter in Trail, British Columbia were causing damage in the State of Washington. Canada and the United States agreed to submit the dispute to the International Joint Commission (IJC), and to be bound by the IJC’s decision. Canada had admitted liability; thus, the main issue before the IJC was the extent of damages. The Commission’s decision represented a cooperative resolution to a thirteen year dispute.

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37. The two countries joined forces in an effort to solve transboundary water pollution in the 1909, Waters Boundary Treaty, Jan. 11, 1909, United States-Great Britain, 36 Stat. 2448, T.S. No. 548 (effective May 13, 1910). The countries agreed that “waters flowing across the boundary shall not be polluted on either side . . . .” Id. art. IV, 36 Stat. 2450, T.S. No. 548, at 3. The treaty created the International Joint Commission (IJC). Id. art. VII, 36 Stat. 2451, T.S. No. 548, at 4. Although the IJC’s primary purpose is to independently monitor transboundary water disputes, the treaty allows the IJC to address “any other questions or matters of difference” between the countries. Id. art. IV, 36 Stat. 2452, T.S. No. 548, at 5-6.


39. See supra note 37.


41. Id.

42. In the course of its decision, albeit in dictum, the IJC enunciated a principle of international law that is often quoted:

No State has the right to use or permit the use of its territory in such a manner as to cause injury by fumes in or to the territory of another or the properties or persons therein, when the case is of serious consequence and the injury is established by clear and convincing evidence.

Trail Smelter Arbitration, supra note 38, at 716.

The Trail Smelter case, due to its unique facts, is of little precedential value in the acid rain context. In Trail Smelter, one source emitted the damaging pollution. Pollutants that cause acid rain, however, come from multiple sources. Furthermore, in Trail Smelter the Canadian Government admitted liability. In the acid rain context, where the
Canada and the United States entered their first bilateral agreement affecting transboundary air pollution in response to pollution in the Great Lakes. In the 1978 Great Lakes Water Quality Agreement, the two governments agreed to confer and develop an appropriate remedial program when atmospheric sources begin to contribute to Great Lakes pollution.

In recent years, the United States and Canada have begun to work towards a bilateral agreement specifically addressing the problem of acid rain. In 1978, the two countries established the Bilateral Research Consultation Group on Long-Range Transport of Air Pollutants (LRTAP). In July 1979, the United States and Canada issued a "Joint Statement on Transboundary Air Quality" expressing their "common determination to reduce or prevent transboundary air pollution which injures health or property." A year

pollution flows both ways, neither government is likely to unilaterally accept responsibility. In short, Trail Smelter involved a less complex dispute. Although perhaps symbolizing the possibilities of international arbitration, Trail Smelter is essentially sui generis. See Rosencranz, supra note 40, at 513.

In a more recent arbitration, the United States and Canada settled a dispute over damage caused by construction of the Gut Dam in Canada. The Canadian government built and operated the dam. Property owners on the south shore of Lake Ontario claimed that the dam caused high water that damaged their property. As in the Trail Smelter case, the Canadian government admitted liability. The case was heard by the Lake Ontario Claims Tribunal, a tribunal established solely to adjudicate claims by United States nationals against Canada for damage caused by Gut Dam. The tribunal awarded the United States $350,000. See Canada-United States Settlement of Gut Dam Claims, Report of the Agent of the United States Before the Lake Ontario Claims Tribunal (Sept. 27, 1968), reprinted in 8 INT'L LEGAL MATERIALS 118 (1969).


The two countries agreed to develop:

Programs to identify pollutant sources and relative source contribution . . . for those substances which may have significant adverse effects on environmental quality including the indirect effects of impairment of tributary waters quality through atmospheric deposition in drainage basins. In cases where significant contributions to Great Lakes pollution from atmospheric sources are identified, the Parties agree to consult on appropriate remedial programs.

Id. art. VI(l)(e), 30 U.S.T. 1392-93, T.I.A.S. No. 9257, at 10-11.

In 1978, the U.S. Congress called for a cooperative agreement between the United States and Canada, stating:

It is further the sense of the Congress that the President, through the Secretary of State working in concert with interested Federal agencies and the affected States, should take whatever diplomatic actions appear necessary to reduce or eliminate any undesirable impact upon the United States and Canada resulting from air pollution from any source.


See United States-Canadian Relations and Acid Rain, supra note 13, at 103.


Id. at 27. Both countries agreed to the following principles and practices in the development of a bilateral agreement on transboundary air pollution:
after signing the Joint Statement, the two countries executed a more formal Memorandum of Intent Concerning Transboundary Air Pollution.49 In the latter document, the two countries recognized "the already serious problem of acid rain,"50 and declared that they were determined to "combat transboundary air pollution in keeping with their existing international rights, obligations, commitments and cooperative practices."51 The governments pledged to develop a bilateral agreement to combat transboundary air pollution,52 and to take interim actions available under current authority.53

The legal status of the Memorandum of Intent is unclear. It does not have the force of a treaty or executive agreement; it is essentially a symbolic gesture, a promise to enter a binding agreement at some future date. The Memorandum does, however, evince a commitment on the part of both countries to work towards a bilateral agreement, and to take interim action to control transboundary pollution.

IV
THE REAGAN ADMINISTRATION AND ACID RAIN: A POTENTIAL THREAT TO UNITED STATES – CANADIAN COOPERATION?

The Carter administration exhibited a desire to work concordedly with the Canadians in an effort to control acid rain.54 The Reagan administration, on the other hand, has been sending conflicting and disquieting signals. During a visit to Ottawa, President Reagan assured the Canadians that the United States was committed to negotiating a transboundary air pollution treaty.55 One Reagan administration official has stated that "the administration is commit-

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49. Memorandum of Intent, supra note 2.
50. Id. at 690.
51. Id.
52. Id. at 691.
53. Id. at 691-92.
54. See supra notes 34-36 and accompanying text.
ted to implement the memorandum of intent."\(^{56}\) Despite these verbal assurances, however, some Canadians are quite concerned that "something is afoot that could snarl negotiations."\(^{57}\)

One potential area of conflict in negotiations is the difference of opinion between Canadian officials and the Reagan administration over the urgency of the acid rain problem. The administration's position is that although acid rain poses a serious threat, more research is needed to justify stricter, and perhaps even current, regulations.\(^{58}\) Canadian officials, on the other hand, are convinced that immediate action is necessary.\(^{59}\) For example, in February 1982, Canada offered to reduce its sulfur dioxide emissions east of the Saskatchewan/Manitoba border by fifty percent by 1990, if the United

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\(^{56}\) United States-Canadian Relations and Acid Rain, supra note 13, at 37 (statement of Raymond C. Ewing, Deputy Assistant Secretary of State for European Affairs).

\(^{57}\) See 12 [Current Developments] ENV'T REP. (BNA) 411 (July 24, 1981) (statement by Kathleen M. Bennett, Assistant Administrator, Office of Air, Noise and Radiation). The United States State Department Canadian Affairs Officer, Robin Porter, recently stated that "the scientific relationship between emissions and effects is not clear. We simply don't know where to put the money at the present time to control acid rain." Mosher, Congress May Have to Resolve Stalled U.S. - Canadian Acid Rain Negotiations, 14 NAT'L L.J. 456 (March 13, 1982).

Many utility companies share the administration's concern about the conclusions drawn from present scientific data on acid rain. See, e.g., United States - Canadian Relations and Acid Rain, supra note 13, at 60 (statement of Joseph Dowd, Senior Vice President and General Council, American Electric Power Co.); Acid Rain: Hearings Before the Subcomm. on Oversight and Investigation of the House Comm. on Interstate and Foreign Commerce, 96th Cong., 2d Sess. 723 (1980) (statement of Dr. William B. Harrison for the Utility Air Regulatory Group and Edison Electric Institute). The Edison Electric Institute, a Washington-based association of electric companies, has recently used newspaper advertisements to criticize what it calls "incomplete and often frightening reports" on acid rain. See Wall St. J., Feb. 24, 1982, at 18, col. 2. Edwin D. Dodd, Chairman of the Board of Owen-Illinois Inc., stated:

[i]t is the issue of acid deposition has been discussed at length in the media. However, at the present time, a direct cause-and-effect relationship between specific emissions and acid deposition has not been determined.

... It would be unwise, however, at this time, to require expensive and premature action that might later prove to have been unnecessary.

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\(^{58}\) See Wall St. J., Feb. 24, 1982, at 18, col. 2. Edwin D. Dodd, Chairman of the Board of Owen-Illinois Inc., stated:

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\(^{59}\) Canadian Environmental Minister John Roberts has stated that action is required "before every shred of evidence is in." 4 INT'L ENV'T REP.: CURRENT REP. (BNA) 1039 (Oct. 14, 1981). To support the argument for immediate action, Roberts pointed to the example of United States-Canadian cooperation to prevent eutrophication of the Great Lakes. The evidence from that cooperative effort, although indicating that there was some phosphorous in the Great Lakes, was not conclusive. "If we had procrastinated 10 years ago, when the cries of alarm were sounded over phosphorus levels in the Great Lakes, we would not be witnessing the tremendous improvements today that have been achieved through the Great Lakes Water Quality Agreement." Id.
States would make similar reductions east of the Mississippi.\textsuperscript{60} The United States rejected the proposal as "scientifically premature," and far too costly considering the condition of the economy.\textsuperscript{61}

Proposed changes in the United States Clean Air Act pose a serious threat to United States-Canadian cooperative efforts to control acid rain.\textsuperscript{62} Ontario Environmental Minister Keith Norton warned that any changes in the Clean Air Act that increase transboundary air pollution would be "bloody close to an act of hostility on a friendly neighbor."\textsuperscript{63} Canadian Federal Environmental Minister John Roberts stated that the Canadians "are concerned over the impending review of the Clean Air Act."\textsuperscript{64} One former United States representative noted, "[i]f we are going to head off a collision between Canada and the U.S. over environmental policy, our Clean Air laws will have to be strengthened to deal with transboundary pollution."\textsuperscript{65}

A 1981 administration draft bill indicated that Canada's concern about United States pollution policy is justified.\textsuperscript{66} The bill proposed sweeping changes in the Clean Air Act. Those changes most relevant to the acid rain problem were: eliminating the requirement that SIPs ensure that pollution from one state does not contribute to a violation of an air quality standard in another state;\textsuperscript{67} accepting any dispersion technique in use before 1977 as a substitute for pollution control;\textsuperscript{68} extending the EPA's authority to exempt smelters

\textsuperscript{60} 5 Int'l Env't Rep.: Current Rep. (BNA) 312, 313 (Aug. 11, 1982).
\textsuperscript{61} Id. In February 1983, Canada renewed its offer. N.Y. Times, Feb. 22, 1983, at CS, col. 3.
\textsuperscript{64} 4 Int'l Env't Rep.: Current Rep. (BNA) 920, 921 (July 8, 1981).
\textsuperscript{65} United States-Canadian Relations and Acid Rain, supra note 13. (statement of former Representative Anthony Toby Moffett, former Chairman, Environment, Energy and Natural Resources Subcommittee).
\textsuperscript{66} In June, 1981, Senator Hart presented the draft bill to the Senate Committee on Environment and Public Works. See Clean Air Act Oversight: Automobile Emission Standards, Hearings Before the Senate Comm. on Environment and Public Works, 97th Cong., 1st Sess., pt. 4, 120 (1981) [hereinafter cited as Clean Air Act Oversight Hearings]. These hearings contain a useful comparison of the draft bill with the existing Clean Air Act. Id. at 122-42.
\textsuperscript{68} Clean Air Act Oversight Hearings, supra note 64, at 134. Under the Clean Air Act, the only facilities that may use tall stacks or other techniques to disperse pollution instead of reducing emissions are facilities that began using the dispersion techniques before 1970. Id. See 42 U.S.C. § 7423(a)(2) (Supp. IV 1980).
from sulfur dioxide emission standards;\textsuperscript{69} and changing from mandatory to discretionary the EPA's power to establish a SIP for a state that fails to get its plan approved by the EPA.\textsuperscript{70}

The draft bill drew criticism from the Canadians. Ontario Environmental Minister John Norton said the proposed bill "shows a complete and callous disregard . . . for our acid rain problems. . . ."\textsuperscript{71} A few weeks later the then EPA Administrator, Anne Burford, announced principles for rewriting the Clean Air Act that indicated a more moderate approach.\textsuperscript{72} These principles, which were approved by President Reagan,\textsuperscript{73} reflect a willingness to preserve the Act's basic structure.

Early in 1982, the EPA endorsed H.R. 5252, a bipartisan bill to amend the Clean Air Act.\textsuperscript{74} Unlike the Reagan administration's draft bill,\textsuperscript{75} H.R. 5252 does not change the existing regulation of tall stacks and smelters.\textsuperscript{76} It also leaves unchanged the new source performance standards\textsuperscript{77} for fossil-fuel fired power plants.\textsuperscript{78} The proposed bill would, however, relax automobile tail pipe emission
standards for nitrogen dioxide. Finally, and perhaps most significantly, H.R. 5252 does not directly address the problem of acid precipitation.

V

BEYOND THE BARGAINING TABLE: CANADA'S USE OF SECTION 115 OF THE UNITED STATES CLEAN AIR ACT

A. THE MECHANICS OF SECTION 115

Section 115 of the United States Clean Air Act provides a mechanism for dealing with the international effects of air pollution. Section 115 allows the EPA Administrator to require states to revise their air quality plans if air pollutants emitted in those states "cause or contribute to air pollution which may reasonably be anticipated to endanger public health or welfare in a foreign country." The EPA Administrator must take two steps before he can activate the section. First, the Administrator must have reason to believe that pollutants emitted in the United States cause or contribute to pollution that may endanger public health or welfare in another country. This belief must be based on reports, surveys or studies of a

79. Id. Nitrogen oxide is an important component of acid precipitation. See supra note 14 and accompanying text.

80. 5 INT'L ENV'T REP.: CURRENT REP. (BNA) 11 (Jan. 13, 1982). The failure to directly address the problem of acid rain conflicts with the United States' commitment to "develop domestic air pollution control policies and strategies, and as necessary and appropriate, seek legislative or other support to give effect to them . . . ." See Memorandum of Intent, supra note 2, at 692.


81. For the text of § 115, see supra note 8.


83. Id. The Administrator must have reason to believe that pollution emitted in the United States may "reasonably be anticipated to endanger public health or welfare" in a foreign country. 42 U.S.C. § 7515(a) (emphasis added). The words "may reasonably be anticipated" indicate that conclusive proof is not necessary.

84. The Clean Air Act definition of effects on public welfare includes, but is not limited to:

- effects on soils, water, crops, vegetation, manmade materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, and hazards to transportation, as well as effect on economic values and on personal comfort and well-being.

duly constituted international agency. Second, the Administrator must determine that the complaining country has given the United States "essentially the same rights with respect to the prevention or control of air pollution occurring in that country as is given that country by [section 115]."

Duly constituted international organizations have found that pollution from the United States does adversely affect Canada. Thus, a determination of whether Canadian legislation provides reciprocal rights to the United States will be a pivotal factor if Canada attempts to use section 115. If Canada satisfies section 115's reciprocity requirement, the EPA should be obligated to require the polluting states to revise their implementation plans.

85. 42 U.S.C. § 7415(a) (Supp. IV 1980). The International Joint Commission, the Working Groups established under the Memorandum of Intent, and the Bilateral Research Group should qualify as duly constituted international agencies. See infra note 87.

Section 115 provides that the Secretary of State may also determine that pollution from the United States is adversely affecting another country. 42 U.S.C. § 7415(a) (Supp. IV 1980). The Secretary of State does not have to base his conclusion on information provided by an international organization; presumably, normal diplomatic channels will suffice.

86. 42 U.S.C. § 7415(c) (Supp. IV 1980).

87. The International Joint Commission (IJC), see supra note 39, should qualify as a duly constituted international agency. Former EPA Administrator Douglas Costle concluded that the IJC is such an agency. Costle Letter, infra note 188. In its 1980 report, the IJC states that "acid precipitation is one widely known and serious example of a problem associated with the long-range transport of airborne pollutants." INTERNATIONAL JOINT COMMISSION, SEVENTH ANN. REP.: GREAT LAKES WATER QUALITY 49 (Oct. 1980). The IJC also concluded that acid deposition can occur "many hundreds of miles from the source." Id. at 50.

The Working Groups established under the Canadian-United States Memorandum of Intent, supra note 2, should also qualify as a duly constituted international organization. One Working Group assessed the reliability of acid rain monitoring and concluded that:

National precipitation chemistry monitoring networks in Canada (CANSAP) and the U.S. (NADP) are beginning to produce comprehensive reliable data . . . and long-range transport models (LRT) have been able to estimate the order of magnitude of interregional transport and deposition for large areas.

WORKING GROUP II, INTERIM REPORT, quoted in United States-Canadian Relations and Acid Rain, supra note 13, at 99. This Working Group also completed a study of the amount of sulfate deposition that crosses the United States-Canadian border. WORKING GROUP II, ATMOSPHERIC MODELLING IN INTERIM REPORT 5-1 (1981); see also Note, supra note 19, at 182.

Finally, the bilateral Research Consultation Group (RCG), see United States-Canadian Relations and Acid Rain, supra note 13, at 103, should qualify as a duly constituted international agency. The RCG has reported that approximately four million tons of sulfur dioxide travel from the United States to Canada each year. LRTAP REPORT, supra note 14, at 10-11. See also supra note 26.

88. If the EPA Administrator determines (1) that pollution from the United States adversely affects a foreign country within the meaning of section 115, and (2) that the affected country meets the reciprocity requirement, section 115 provides that he "shall give formal notification thereof to the Governor of the State in which such emissions originate." 42 U.S.C. 7415(a) (emphasis added). This notification constitutes a finding under Section 7410(a)(2)(H)(ii) of the Act, which requires the polluting state to revise its air quality plan. Id. § 7415(b).
B. Section 115's Reciprocity Requirement

1. Section 115's Legislative History

The legislative history of section 115's reciprocity requirement is sparse. Section 102 of the Clean Air Act of 1965,\(^\text{89}\) section 115's predecessor, had reciprocity language virtually identical to the language in section 115,\(^\text{90}\) but, unfortunately, its legislative history also fails to elucidate the contours of the reciprocity requirement. The House Committee report that accompanied section 102 stated:

As a member of the North American Community, the United States cannot in good conscience decline to protect its neighbors from pollution which is beyond their legal control. Therefore the bill provides remedies for foreign countries adversely affected by air pollution emanating from the United States, if reciprocal rights are granted to the United States.\(^\text{91}\)

During the House debates over the 1965 amendments, the following dialogue took place:

Mr. McCarthy. Mr. Chairman, I am most interested in section 102 providing for the international control of air pollution . . . how [would] section 102 . . . work in the instance of pollution emanating from the United States . . . and going over to . . . Ontario . . . .

Mr. Harris. That problem would be recognized. The people in Canada affected would raise some objection. They would through the regular procedures make a complaint to our country. Before they could proceed . . . they would have to be in agreement for reciprocal treatment.\(^\text{92}\)

It is impossible to discern from the exiguous remarks made in the House Committee report and debates exactly what Congress intended when it enacted the reciprocity requirement of section 102. Nevertheless, these remarks and the language of section 102 do indicate a Congressional intent to provide a means by which a foreign


Section 102 provided that:

whenever the Secretary [of Health, Education, and Welfare], upon receipt of reports, surveys, or studies from any duly constituted international agency, has reason to believe that any pollution . . . which endangers the health or welfare of persons in a foreign country is occurring . . . [t]he Secretary shall invite the foreign country . . . to attend . . . [a] conference . . . .

79 Stat. 992, 995.

\(^{90}\) Section 102 provided that: "This subparagraph shall apply only to a foreign country which the Secretary determines has given the United States essentially the same rights with respect to the prevention or control of air pollution occurring in that country as is given that country by this subparagraph." 79 Stat. 995.

\(^{91}\) H.R. REP. No. 899, 89th Cong., 1st Sess. 6 (1965), reprinted in 1965 U.S. CODE CONG. & AD. NEWS 3608, 3613.

\(^{92}\) 111 CONG. REC. 25,052 (1965).
country can invoke United States legislation to protect itself from transboundary air pollution.

In 1977, Congress amended section 115.93 Previously, to trigger the section the EPA Administrator had to believe that pollution originating in the United States endangered "the health or welfare of persons in a foreign country . . . ."94 The 1977 amendment omitted the word "person," and changed the phrase to "public health or welfare."95 Because "public welfare" is broadly defined to include effects on the natural and man-made environment, as well as effects on persons,96 this change significantly increased the scope of section 115.

In the 1977 amendment, Congress changed the enforcement mechanism of section 11597 by authorizing the EPA Administrator to require the polluting states to modify their SIPs.98 The legislative history of the 1977 amendments, however, fails to illuminate the meaning of section 115's reciprocity requirement.

Congress has not altered section 115 since the 1977 amendments.99 Because the indicia of Congressional intent in legislative history is slight and sheds virtually no light on what reciprocity means under section 115, policy considerations should influence its definition.

2. Policy Considerations in Defining Reciprocity: Statutory v. Functional Reciprocity

In general, reciprocity is the relation between two countries when each one gives privileges to the citizens of the other on the condition that its own citizens enjoy similar privileges.100 Reciprocity can be narrowly defined; i.e., as existing only when country A has a law precisely like that of country B. This narrow definition will be called statutory reciprocity.101 Reciprocity can, however, be said to

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94. 79 Stat. 992, 995 (emphasis added).
97. See supra note 89. Before the 1977 Amendments, section 102 was enforced through the use of an enforcement conference. Id.
100. BLACK'S LAW DICTIONARY 1142 (rev. 5th ed. 1979).
101. Of course, this does not mean that there must be exact symmetry between the law of country A and the law of country B. The rights and duties imposed by the laws do,
exist if country A demonstrates the commitment and ability to achieve the basic concepts embodied in the legislation of country B. This broader definition will be called functional reciprocity. To satisfy the requirement of functional reciprocity, country A must (1) have legislation giving it the power to provide essentially the same rights to country B as country B provides to country A, and (2) demonstrate a willingness to exercise that power.\(^{102}\) The second requirement is dynamic and will, to a certain extent, turn upon the political will of the foreign country.\(^{103}\)

The EPA Administrator should adopt the definition of reciprocity most consistent with the overall purpose of the Clean Air Act and section 115. Section 101(b) of the Clean Air Act states that the purposes of the Act include the protection and enhancement of the quality of the Nation's air resources in order to promote the public health and welfare.\(^{104}\) Because Canada and the United States contribute to each other's acid rain,\(^{105}\) United States-Canadian cooperation is necessary to accomplish this purpose. Indeed, section 115's reciprocity requirement is based on an expectation of cooperation and a desire to protect foreign countries from pollution emitted in the United States. The House Report for the bill that became section 115 states:

> The boundaries that separate the United States from Canada and Mexico do not block the flow of pollution [sic] originating within our borders, nor do they shield persons living in those countries from the adverse effects of such

\(^{102}\) Thus, in the example in note 101, although the power in country A is mandatory and the power in country B is discretionary, it does not necessarily preclude a finding of functional reciprocity.

\(^{103}\) The requirement is dynamic in that it will depend on the willingness of government officials to exercise discretionary power. For example, once the EPA Administrator makes a decision that a country has the statutory power to provide reciprocity, that decision should remain in force until the country makes a legislative change. The Administrator's decision whether a government is willing to exercise discretionary power is, however, subject to change depending on the action (or inaction) of that country's officials.

\(^{104}\) 42 U.S.C. § 7401(b) (Supp. IV 1980). This section provides:

> The purposes of this title are—
> 1. to protect and enhance the quality of the Nation's air resources so as to promote the public health and welfare and the productive capacity of its population;
> 2. to initiate and accelerate a national research and development program to achieve the prevention and control of air pollution;
> 3. to provide technical and financial assistance to State and local governments in connection with the development and execution of their air pollution prevention and control programs; and
> 4. to encourage and assist the development and operation of regional air pollution control programs.

\(^{105}\) See supra notes 24-28 and accompanying text.
Therefore the bill provides remedies for foreign countries adversely affected by air pollution emanating from the United States . . . 106

The best way to achieve the dual purpose of protecting the national environment and protecting other countries from pollution originating in the United States is to adopt the functional definition of reciprocity. It is unrealistic to expect Canada’s clean air legislation to be a mirror image of United States legislation. If the United States demands exact symmetry, so few countries will meet the test that Congress’ purpose in enacting section 115 will be thwarted. A country’s response to air pollution depends, to a certain degree, on unique circumstances. Canada and the United States have adopted air pollution strategies which reflect their political systems and the nature of their environmental problems. For example, Canada has traditionally given far greater autonomy to its provinces than the United States federal government has given to the states.107 Further, in Canada sulfur dioxide comes primarily from its smelter industry, whereas in the United States it comes primarily from electrical generators.108 In short, different situations produce different legislation. Canada, or any other country, may view a requirement of statutory reciprocity as an ethnocentric attempt by the United States to dictate the environmental law of other nations.109

The functional approach to reciprocity finds support in Congress’ interpretation of the reciprocity provision in the Fishery Conservation and Management Act of 1976.110 The Act authorizes the Secretary of State to allow a foreign fishing vessel to fish in United States territorial waters if the Secretary decides that the vessel’s home nation “extends substantially the same fishing privileges to fishing vessels of the United States . . . as the United States extends to foreign fishing vessels.” 111 The House Report accompanying this bill states that when deciding whether to approve a foreign country’s application, the Secretary of State should determine whether “the fishing activity proposed in the application is consistent with the policy and purposes of this Act . . . .” 112 Thus, when Congress enacts a

106. H.R. REP. No. 899, 89 Cong., 1st sess. 6 (1965).
107. See Wetstone, supra note 13, at 50,012. The Reagan administration, however, has proposed revisions of the Clean Air Act that would increase the autonomy of the states in air pollution control. See supra note 72.
108. See supra note 14.
109. One Canadian official said that the United States must “get rid of the concept that anyone who hasn’t a mirror copy of the U.S. Clean Air Act is somehow environmentally deficient.” 10 [Current Developments] ENV’T L. REP. (BNA) 910 (Aug. 3, 1979).
111. Id. at § 1821(g).
reciprocity requirement, it is concerned with consistency of policy rather than symmetry of legislation.

The Mineral Lands Leasing Act (MLLA) also contains a reciprocity requirement. The relevant section of the MLLA provides:

Citizens of another country, the laws, customs, or regulations of which deny similar or like privileges to citizens or corporations of this country, shall not by stock ownership, stockholding, or stock control, own any interest in any lease acquired under the provisions of this chapter.

In his recent interpretation of the Act, Secretary Watt rejected a statutory definition of reciprocity in favor of a two-part functional approach test. Under the test, the Department of the Interior (the Department) must first decide if U.S. citizens are precluded by law, custom, or regulation from investing in the stock of Canadian corporations. If Canadian laws, customs, or regulations do not preclude U.S. investment, the Department must then determine if U.S. investors are effectively excluded from investing in Canadian mineral resources.

The Canadian Oil and Gas Production and Conservation Act of 1980-81 provides that certain production licenses can be granted or renewed only if the applicant has been a resident of Canada for more than one year or if the company seeking the license has a Canadian ownership of at least fifty percent. Applying his two-part test to Canada, Secretary Watt determined that Canada satisfies the reciprocity requirement of the MLLA. Because the United States does not put any limitation on Canadian investment in United States oil and gas leases similar to those of Canada, Secretary Watt would have reached a different decision if he had used a statutory definition of reciprocity.

116. Id. at 3.
117. Id.
120. Further support for a functional interpretation of section 115 is found in the language of section 115 and the Fishery Conservation and Management Act. 16 U.S.C. § 1821(g) (Supp. IV 1980). The Fishery Act allows a finding of reciprocity when a foreign nation provides the United States with "substantially" the same privileges the United States gives it. Section 115 authorizes a finding of reciprocity when the foreign nation provides the United States with "essentially" the same rights the United States gives it. The words "essentially" and "substantially" militate against the imposition of a statutory or strict definition of reciprocity.

C. Does Canada Satisfy the Functional Reciprocity Requirement?

Canada's air pollution control strategy, like that of the United States, involves elements of federal and local control. The federal role in Canada, however, is primarily one of guidance; the provinces are relatively autonomous.

The Canadian Clean Air Act is based on the promulgation of advisory national air quality objectives. The federal government can prescribe pollution standards only when pollution constitutes a significant danger to human health or is likely to cause a violation of an international pollution agreement.

As of 1980, it was not clear whether the Canadian Clean Air Act allowed the Canadian Government to impose federally enforceable controls on emissions that contribute to acid rain. First, although there was cogent evidence that acid rain damaged the natural and man-made environment, the evidence regarding its effect on human health was less clear. Second, although Canada and the

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121. For a useful discussion and comparison of pollution control laws in Canada and the United States, see Wetstone, supra note 13, at 50,001. Canada, like the United States, is a federation in which power is distributed between central and regional authorities. See P. HOGG, CONSTITUTIONAL LAW OF CANADA 29 (1977).

122. See Wetstone, supra note 13, at 50,012. An Assistant Canadian Deputy Attorney General has explained that under the Canadian legislative system "the matter of the control and prevention of acid rain has to be approached on . . . [a] dual cooperative, coordinated basis. There is simply no single, national approach possible." Smith, The Transnational Implications of Acid Rain, The Canadian Legislative Position, 5 CANADA-UNITED STATES L.J. 66, 67 (1982). Raymond Robinson, Assistant Deputy Minister for Environmental Protection, Environment Canada, explained that "[o]ur plan is to rely upon provincial legislation to effect the required controls because that is our system in Canada. But the Federal backup authority is now there if needed." Acid Precipitation: Hearings before the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce, 97th Cong., 1st Sess. pt. 1, at 515 (1981) [hereinafter cited as Robinson Statement].


124. Id. at 956. Section 7(1) of the Canadian Clean Air Act allows the federal government to establish emission limits when pollution would:

(a) constitute a significant danger to the health of persons, or (b) be likely to result in the violation of a term or terms of any international obligation entered into by the Government of Canada relating to the control or abatement of air pollution in regions adjacent to any international boundary or throughout the world.

Id.

125. See supra notes 17-22 and accompanying text.

126. One reason for the absence of clear evidence is that sulfuric acid does not occur as a single pollutant. Therefore, although sulfuric acid is an active irritant of the respiratory system, which can cause reduced oxygen efficiency, increased heart beat, and subsequent heart attack, it is difficult to isolate its effects. See I. VanLier, supra note 13, at 29. VanLier concludes that "[a]lthough [sulfuric acid's] . . . concentration in the actual acid rain seems too little to contribute to effects on human health, there is a severe risk for human health in the near future." Id. (footnotes omitted).
United States had signed the Memorandum of Intent\textsuperscript{127} and the Convention on Long-Range Transboundary Air Pollution,\textsuperscript{128} these

Not all commentators share the belief that current evidence is insufficient to link acid rain to adverse effects on human health. In a statement to the Senate Energy Conservation and Supply Subcommittee, New Hampshire Senator John Durkin claimed that:

The relationship of adverse health effects and sulfur oxide/particulate pollution have [sic] been well established. Sulfur oxides . . . can be oxidized to sulfuric acid . . . . As much as 80 percent of the sulfates are small enough to be inhaled into the alveoli of the lungs . . . where the destruction of these tiny air sacs . . . cause[s] . . . emphysema.

\textit{Effects of Acid Rain: Hearing Before the Subcomm. on Energy Conservation and Supply of the Senate Committee on Energy and Natural Resources,} 96th Cong., 2d Sess. 57 (1980). Dr. Leonard Hamilton, head of the Biomedical and Environmental Assessments Division of the Brookhaven National Laboratory, claims that between 7,500 and 120,000 Americans are dying every year as a result of acid air pollution. Hamilton, \textit{The Transnational Implications of Acid Rain, Health Issues,} 5 \textit{Canada-United States L.J.} 47, 50 (1982).

Acid rain may also indirectly effect human health by mobilizing metals in soils and water pipes, thereby causing these metals to enter the food chain and water supply. Wetstone, supra note 13, at 50,002.

\textsuperscript{127} See supra notes 2 & 49 and accompanying text.

\textsuperscript{128} \textit{Convention on Long-Range Transboundary Air Pollution,} U.N. Doc. ECE/HLM.1/R.1 (1979), reprinted in 18 \textit{Int'L Legal Materials} 1442 (1979) [hereinafter cited as \textit{Long-Range Transboundary Air Pollution}]. The United States, Canada, and thirty-three other nations have signed the convention. Note, \textit{Environmental Modification - Convention on Long-Range Transboundary Air Pollution,} 21 \textit{Harv. Int'l L.J.} 536, 536 (1980) [hereinafter cited as Note, \textit{Environmental Modification}]. The agreement calls on the signatories to control transboundary air pollution through exchange of information, research, consultation, and monitoring. \textit{Long-Range Transboundary Air Pollution, supra} 18 \textit{Int'L Legal Materials} 1443-44 (preamble). Although significant as the first international agreement to directly address long-range air pollution, the Convention does not limit pollutants or specify control measures. Note, \textit{Environmental Modification, supra,} at 536.


States have, in accordance with the Charter of the United Nations and the principle of international law, the sovereign right to exploit their own resources pursuant to their own environmental policies, and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States or of areas beyond the limits of national jurisdiction.

\textit{Id.} at 5, 11 \textit{Int'l Legal Materials} at 1420. Principle 22 provides that:

States shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such states to areas beyond their jurisdiction.

\textit{Id.} at 5, 11 \textit{Int'l Legal Materials} at 1420.

The Convention on Long-Range Transboundary Air Pollution and Principles 21 and 22 of the Declaration on the Human Environment represent general statements concerning the duty of nations to avoid damaging each other's environment; they do not specify exactly what conduct is unacceptable and what mechanisms will be employed to prevent or penalize unacceptable actions. See A. Levin, \textit{Protecting the Human Environment: Procedures and Principles For Preventing and Resolving International Controversies} 40 (1977); \textit{see also} Wetstone, supra note 13, at 50,017.
do not constitute legal obligations to control transboundary air pollution.

1. Provincial Action

Although there is less federal control of air pollution in Canada than in the United States, the Canadian provinces have demonstrated a willingness to take meaningful steps to control pollution that causes acid rain. As of 1980, five provinces—Alberta, Manitoba, New Brunswick, Ontario, and Saskatchewan—had adopted the advisory air quality objectives recommended by the federal government. These objectives were somewhat more stringent than the comparable United States secondary ambient air quality standards, and far more stringent than the United States primary ambient air quality standards.

The Canadian provinces have demonstrated a willingness to enforce their air quality regulations. For example, in 1970 the Ontario Environmental Minister ordered the International Nickel Company (INCO), a smelting complex which poured 5,100 tons of sulfur dioxide into the atmosphere daily, to reduce its emissions to 700 tons per day by 1978. By 1978, INCO had reduced its daily emissions to approximately 3,000 tons. The Environmental Minister then revised his order and increased the allowable emissions level to 3,600 tons per day. In September, 1980, however, the Ontario government issued a non-appealable cabinet order requiring INCO to reduce its emissions to 2,500 tons per day, with a further reduction to


130. Wetstone, supra note 13, at 50,013. These provinces represented the most significant air polluters. British Columbia has adopted a permit system that is similar in effect to the ambient standard approach. Labrador, Newfoundland, Nova Scotia, Prince Edward Island, and Quebec, in general the less significant polluters, have not adopted the ambient standards or the permit system. Id.

131. Id. Actual provincial regulation of emissions, however, is often characterized by flexibility and discretion; pollution control decisions are often reached through private negotiations between provincial governments and industry. Thus, one commentator notes that there can be a discrepancy between air quality standards and actual emission levels. Id.

132. Id. at 50,014 n.135.

133. Id. This reduction, however, was partially attributed to INCO's extension of its smokestack to a height of 1,250 feet. Id.

134. Id.
1,950 tons per day by 1982. This order, in addition to controlling one of Canada's most notorious polluters, was no doubt designed to demonstrate to the United States the ability and willingness of Ontario to protect air quality in the absence of federal mandates. Canada's federal Environmental Minister, John Roberts, noted that "[f]urther emission reductions at [INCO] can only strengthen our position at the international bargaining table."137

Ontario's willingness to impose air pollution controls has not been limited to its regulation of INCO. In February 1981, the Ontario government passed a regulation limiting Ontario Hydro's sulfur dioxide and nitric oxide emissions. In that same month, Ontario Hydro agreed to use gas scrubbers and low NOX burners. This effort to reduce emissions at Ontario Hydro will cost approximately 500 million dollars and will increase electricity rates by about two percent. Ontario Environmental Minister Walter Giles has also reported that Ontario will promote a ten million dollar chemical tracer study to pinpoint sources of sulfur dioxide and nitrogen oxides.

The Province of Saskatchewan also has attempted to limit emissions that contribute to acid rain. When the Saskatchewan Power Company (SPC) built a thermal power plant near Coronach, Sas-

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136. The order recognized that "sulfur dioxide emitted from nonferrous smelting operations is one of the most significant Ontario contributors to the acid precipitation phenomenon," and that "INCO Limited's Cooper Cliff Smelter ... is the major source in Ontario of sulfur dioxide emissions . . . ." Ont. Regs. 712/80, reprinted in Ont. Gaz. 3817 (Sept. 20, 1980).

137. Robinson Statement supra note 122, at 524.

138. Ontario Hydro is the public utility that provides electricity to the residents of Ontario. Robinson Statement, supra note 122, at 524.


140. Ontario Hydro Program to Cut Acid Rain, Canadian Embassy Public Affairs Division Press Release (Feb. 13, 1981). NOX is the notation used to represent collectively NO (nitric oxide) and NO2 (nitrogen dioxide). Nitric oxide is colorless, nonflammable, odorless, and toxic. Nitrogen dioxide, a reddish-brown gas, is nonflammable, toxic, and characterized by a strong choking odor. See H. Stoker & S. Seager, supra note 13, at 31-32.

141. Robinson Statement supra note 122, at 524.

142. Id.

143. N.Y. Times, Mar. 11, 1982, at B5. Ontario has asked the United States to participate in, and contribute to, the study. Id. See also notes 60-61 and accompanying text.
katchewan, its operating permit from the provincial government required the most comprehensive monitoring procedures ever applied to a coal-fired thermal plant in Saskatchewan. Under the permit, SPC must inform the Saskatchewan Environment Department within seventy-two hours of a release of sulfur dioxide that exceeds provincial air quality standards. Moreover, Canada has pledged to monitor the Saskatchewan plant emissions and sulfur dioxide concentrations to take account of United States air quality concerns. The Saskatchewan government also has contingent regulations that require the installation of sulfur scrubbers if they should become necessary.

Quebec is a third example of provincial willingness to take action to reduce pollution that causes acid rain. As of 1981, the Quebec government was assessing the potential for major reductions in sulfur dioxide emissions from the Norda copper smelter at Rouyn, Noranda. The government hoped to achieve at least a forty percent reduction in these emissions.

The Ontario, Saskatchewan and Quebec examples demonstrate the willingness of these provinces to take meaningful and often costly measures to control acid rain. Despite these provincial efforts, before 1980 it was uncertain whether Canada satisfied section 115’s reciprocity requirement. The main problem was the absence of federal regulatory control. In 1980, the Canadian Parliament moved to remedy this situation.

2. Federal Action: The 1980 Clean Air Act Amendment

In December, 1980, the Canadian Parliament amended its Clean Air Act in an effort to satisfy the reciprocity requirement of section 115 of the United States’ Clean Air Act. Under section

144. ENVIRONMENTAL MEDIATION INTERNATIONAL REPORT, supra note 125, at 32.
145. Id. at 33.
146. Id.
147. Id. at 32-33.
148. Id.
149. Robinson Statement, supra note 122, at 524.
150. Id.
152. An Act to Amend the Clean Air Act, ch. 45, 1980 Can. Gaz. 1159 (Part III). The Canadian Clean Air Act, as amended, is reprinted in 51 INT’L ENV’T REP. REF. (BNA) 1901. Section 21.1(1) provides:

Subject to this section, where the Minister has reason to believe that an air contaminant emitted into the ambient air by any source or sources of a particular class or classes in Canada creates or contributes to the creation of air pollution that may reasonably be expected to constitute a significant danger to the health, safety or welfare of persons in any other country, then, notwithstanding anything prescribed or otherwise provided pursuant to this Act, whether before or after the coming into force of this section, the Minister shall recommend to the Gover-
21.1(1), if the Environmental Minister determines that "an air contaminant emitted . . . in Canada creates or contributes to the creation of air pollution that may reasonably be expected to constitute a significant danger to the health, safety or welfare of persons in any other country," he shall "recommend to the Governor in Council such specific emission standards . . . as he may consider appropriate for the elimination or significant reduction of that danger." Except with regard to federal sources, the Minister is not authorized to make such a recommendation without first consulting with the governing province to determine whether the province can adequately solve the problem. If the province has the ability to take legal action to abate the problem, the Minister must attempt to procure such action. If the Minister concludes that the province is unable to solve the problem on its own, he may recommend emission limits. The foreign country that is affected by the pollution must be allowed to "make representations" with respect to these recommendations. Finally, the Governor in Council may prescribe the emission limits recommended by the Environmental Minister if he is satisfied that the Minister made a reasonable endeavor to secure provincial action and was unsuccessful, and if the effected foreign country grants Canada "essentially the same kind of benefits . . . as is provided in favor of the country by . . . [the Canadian Clean Air
a. Legislative History

The Canadian Parliament’s purpose in amending the Clean Air Act is evident in the amendment’s legislative history. In the Commons Debates the Canadian Environmental Minister stated:

"The purpose of the amendments to the Clean Air Act now before the House is to provide the United States with essentially the same legislative protection as that offered Canada under section 115 of the United States clean air act. Such reciprocal protection is needed under the terms of section 115 to enable United States federal authorities to initiate a process to require state governments to reduce emissions adversely affecting Canada."

Just before the Canadian Parliament passed section 21.1, one member unequivocally said “I rise in support of the amendment which is intended to give Canada reciprocal legislation to that provided by section 115 of the United States clean air act.”

Canadian Parliament member Ronald Irwin has stated that Parliament “passed an amendment which now triggers in with section 115.”

b. Health, Safety or Welfare of Persons

Although the Canadian Parliament’s intention in enacting section 21.1 is clear, its success is less certain. To activate section 21.1, the Canadian Environmental Minister must determine that pollution emitted in Canada can reasonably be expected to significantly endanger the “health, safety or welfare of persons” in another country. The Canadian Clean Air Act does not define “welfare of persons.” Section 115 of the United States Clean Air Act authorizes the EPA Administrator to require a state to revise its air quality plan whenever emissions from that state endanger “public health or wel-

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162. Commons Debates (Dec. 16, 1960) reprinted in Int’l Legal Materials 762 (1981). Roberts also noted the symbolic effect of the amendment: “[t]he speed and unanimity with which this House is prepared to pass . . . [the amendments] reflect[s] very clearly our collective view . . . that the need to control acid rain requires extraordinary and rapid measures. That is a message which we . . . are sending to the administration, Congress, and the people of the United States.” Id.
163. Id. at 764 (statement of Mr. James Fulton).
165. Roberts, however, has unequivocally stated his belief that “[t]here is no question that our legislation does provide reciprocal rights to the United States.” Roberts, The Transnational Implications of Acid Rain, 5 Canada-United States L.J. 2, 7 (1982).
166. 1980 Can. Gaz. 1160 (Part III) (§ 21.1(1)) (emphasis added). Before the 1977 amendments to the U.S. Clean Air Act, section 115 did not become operative until the EPA Administrator determined that pollution originating in the United States endangered “the health or welfare of persons in a foreign country.” In 1977, Congress eliminated the phrase “of persons.” See supra notes 93-96 and accompanying text.
fare” in a foreign country. The United States’ Act broadly defines public welfare to include effects on the natural and man-made environment, as well as effects on human health. Thus, on the face of the two statutes, Canada’s section 21.1 may provide the United States with less protection than section 115 provides Canada. Section 21.1 gives the United States rights similar to those granted Canada by section 115 only when pollution emanating from Canada constitutes “a significant danger to health, safety or welfare of persons” in the United States. Section 115, on the other hand, allows the EPA to compel revision of a state’s air quality plan when pollution from the United States injures the environment in Canada. Because evidence regarding the effects of acid rain on the environment is presently more conclusive than evidence regarding its effects on persons, this discrepancy may be significant.

A more plausible reading of section 21.1 indicates that the phrase “welfare of persons” includes effects on the environment. If Parliament intended section 21.1 only to reach pollution that posed a direct threat to human health, it would not have needed to add the word “welfare” to the phrase “health and safety of persons.” When Parliament wanted to control only pollution that threatened human health, it gave the Governor in Council power to prescribe national limits for pollutants that “constitute a significant danger to human health.” The addition of the word “welfare” to section 21.1 indicates that Parliament wanted the Governor in Council to have the power to set national emission limits for pollution that endangers the environment in the United States.

c. Mandatory vs. Discretionary Power

Another aspect of section 21.1 presents a more serious question about its success in satisfying section 115’s reciprocity requirement. According to section 115, once the EPA Administrator believes that pollution from the United States may reasonably be anticipated to endanger public health or welfare in a foreign country, he must give

171. See supra notes 17-23 and accompanying text.
172. See supra note 126.
174. For an explanation of the adverse effects of acid rain, see supra notes 17-23 and accompanying text.
notice to the Governor of the polluting state.175 This notice constitutes a finding under section 110(a)(2)(H)(ii), which mandates a revision of the state air quality plan.176 Under the Canadian Act, the Environmental Minister, after failing to secure provincial action,177 "shall recommend to the Governor in Council . . . specific emission standards . . . ."178 The Governor in Council then may prescribe federal regulations.179 Thus, under section 21.1, even if there is reason to believe that pollution from Canada is harming the health, safety, or welfare of persons in the United States, promulgation of binding federal standards is at the discretion of the Governor in Council.

Although there is no mandatory Canadian federal legislation that is the statutory equivalent of United States federal legislation, the differences are, to a certain extent, a function of differences in political systems.180 Under a functional definition of reciprocity, however, the essential inquiry is not whether Canada has statutory equivalency, but whether it has the power to grant the United States reciprocal rights, and whether it has demonstrated a willingness to exercise that power.181

Canada does have the power to grant reciprocal rights equal in scope to those provided by section 115. Section 21.1 authorizes the Governor in Council to impose emission limits on pollution that harms the "welfare of persons" in the United States.182 Because a substantial amount of Canada's acid rain is caused by pollution from the United States,183 it will be in Canada's best interest for the Environmental Minister to broadly interpret the phrase "welfare of persons." Similarly, it will be in Canada's best interest for the Governor in Council to exercise his discretionary power to impose mandatory federal emission limits on sources that contribute to pollution in the United States.184 The Canadian Environmental Minister has stated that Canada recognizes "an overriding federal

177. 1980 Can. Gaz. 1162 (Part III) (§ 21.2(2)).
178. Id. at 1160 (§ 21.1(1)).
179. Id. at 1162 (§ 21.2(1)).
180. See supra notes 121-22 and accompanying text.
181. See supra notes 100-20 and accompanying text.
182. See supra note 152.
183. See supra notes 24-25 and accompanying text.
184. In the next few years acid rain will cause approximately one billion dollars of damage to Canada's tourist and fishing industries. 3 INT'L ENV'T REP.: CURRENT REP. (BNA) 513 (November 12, 1980). A report by the Canadian National Research Council concluded that sulfur compounds were causing 200 million dollars in damage a year to buildings and other materials in Canada. United States-Canadian Relations and Acid Rain, supra note 13, at 7.
responsibility to protect another country from pollution..."\(^{185}\)

Between 1980 and 1981 the Canadian government nearly tripled its acid rain research budget.\(^{186}\) It will spend an additional 29.5 million dollars on acid rain studies by the end of 1983.\(^{187}\) These measures, the action of the provinces, and the 1980 amendment to the Canadian Clean Air Act demonstrate Canada's ability and willingness to take serious and costly measures to control pollution that causes acid rain. The United States should not refuse to use section 115 on Canada's behalf due to a lack of statutory reciprocity. Rather, because Canada has the power to provide reciprocal rights, the decisive question should be whether it is willing to use this power. Present evidence justifies an affirmative answer to this question.

VI

A LOOK AHEAD

Before leaving office, former EPA Administrator Douglas Costle determined that the Canadian Clean Air Act satisfied the reciprocity requirement of section 115.\(^{188}\) Based on the International Joint Commission's Seventh Annual Report on Great Lakes Water Quality, Costle concluded that "emission sources in the United States contribute significantly" to acid precipitation in Canada.\(^{189}\) According to Costle, these conclusions "warrant the initiation of the Section 115 based plan revision process in appropriate states."\(^{190}\) A

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186. 3 INT'L ENV'T REP.: CURRENT REP. (BNA) 513 (Nov. 12, 1980).
187. Id.
189. Costle Letter, supra note 188, at 2, 3.
190. Id. at 6. In a January 13, 1981 letter to Secretary of State Edmund Muskie, EPA Administrator Costle stated that:

As required by the Clean Air Act, I have completed my review of the Canadian legislation. After consultation with the Department of State, I have concluded that the Canadian legislation provides the Government of Canada with authority to give the United States essentially the same rights as Section 115 of the Clean Air Act gives to Canada. As with most legislation it is possible that the Canadian legislation could in the future be interpreted or implemented in a way that the United States would conclude that it was not being given essentially the same rights as are provided under Section 115. Thus, it is not possible to make a permanently binding determination. . . . [One must look to the legislative authority and how it is applied.] This second aspect of EPA's determination is necessarily a dynamic one which will continue to be influenced by Canadian action now and in the future.

memorandum from the Assistant Administrator of the Office of Air, Noise, and Radiation to the Director of the Office of Air Quality Planning and Standards, directed that office to “proceed to develop information and recommendations for the next Administrator as to which states might appropriately be notified” to modify their air quality plans.

The EPA, under the Reagan administration, has not requested any state to modify its air quality implementation plans pursuant to section 115. On the other hand, the EPA has not issued any statements challenging Costle’s findings, and no court has ruled on their validity.

The Canadians can argue that Costle’s findings impose a legal obligation on the present EPA Administrator to notify the polluting states to modify their air pollution control plans. Section 304(a)(2) of the Clean Air Act allows a citizen to sue the Administrator for failure to perform a non-discretionary duty. Although the Administrator’s initial decision as to whether pollution in the United States is endangering the health or public welfare in another country is discretionary, once this decision is made, section 115 states that the Administrator shall give formal notification to the polluting states. Thus, the present EPA Administrator may, based on Costle’s findings, be obligated to require the polluting states to modify their air pollution control plans.


192. In Ohio v. EPA Nos. 81-1310, 1311, 1312 (D.C. Cir. Oct. 19, 1981), the State of Ohio and two utility companies, pursuant to section 307 of the Clean Air Act, argued that “the purported final action of the Administrator” should be set aside. The EPA, then under the Reagan administration, argued that the case should be dismissed because Costle’s press release did not constitute final agency action. See 4 INT’L ENV’T REP.: CURRENT REP. (BNA) 1075 (Nov. 11, 1981). The Province of Ontario unsuccessfully sought to intervene to support Costle’s actions. Id.

The court did not reach the issues of the finality and validity of Costle’s findings. The parties agreed to a voluntary dismissal, and EPA and Ontario specifically stipulated that: dismissal of the cases shall not be construed by the parties to this stipulation as having any legal significance or affect on any future litigation between the parties to this stipulation regarding Section 115 of the Clean Air Act, 42 U.S.C. § 7415.


195. This argument is supported by the Second Circuit’s holding in Natural Resources Defense Council, Inc. v. Train, 545 F.2d 320 (2d Cir. 1976). In Train, the EPA Administrator appealed an order of the United States District Court for the Southern District of New York requiring him to place lead on a list of air pollutants adverse to the public health or welfare. The Administrator claimed that section 108 of the Clean Air Act did not mandate that he list lead. The relevant part of section 108 provides that:

(a)(1) For the purpose of establishing national primary and secondary ambient air quality standards, the Administrator shall within 30 days after [December 31, 1970] publish . . . a list which includes each air pollutant—
The Canadians will encounter two obstacles in a suit to force the current EPA Administrator to activate section 115. First, there is the threshold issue of standing. It is not clear whether Canada, or a Canadian province, would have standing to sue the EPA Administrator to compel him to activate section 115. Section 304 of the Clean Air Act authorizes “any person” to sue to force the EPA Administrator to perform non-discretionary duties. Section 302(e) provides that the term “person” includes an individual, corporation, partnership, association, State, municipality, political subdivision of a State, and any agency, department, or instrumentality of the United States and any officer, agent, or employee thereof. Thus, the standing of Canada, or a Canadian province, may depend on whether they are “persons” within the meaning of section 302(e). In Pfizer Inc. v. Government of India, the Court held that India was a “person” entitled to sue under the Clayton Act. The Court noted that there is a presumption that foreign nations are entitled to sue in United States courts. Pfizer Inc. is precedent for a finding that Canada, or a Canadian province, is a “person” entitled to sue under

(A) . . . which, in his judgment, . . . endanger[s] public health or welfare;
(B) the presence of which in the ambient air results from numerous or diverse mobile or stationary sources; and
(C) for which air quality criteria had not been issued before [December 31, 1970], but for which he plans to issue air quality criteria under this section.


The EPA claimed that under section 108(a)(1)(C) the Administrator retained discretion whether to list a pollutant, even though it met the criteria of sections 108(a)(1)(A) and (B). According to the EPA, listing was mandatory only when the Administrator “plan[ned] to issue air quality criteria.” Train, 545 F.2d at 324. Because the Administrator could choose not to plan to issue such criteria, the EPA claimed that section 108 imposed no duty on the Administrator.

The Second Circuit rejected the EPA’s argument. The court first noted that section 108(a)(1) contains mandatory language: “the Administrator shall . . . publish . . . a list. . . .” Id. at 324-25. The court held that once the Administrator determines that a pollutant is dangerous to health, he must list the pollutant.

The Canadians could argue that the Administrator’s initial decision under section 115 regarding the effect of pollution emanating from the United States, like the Administrator’s initial decision under section 108, is discretionary. Once the initial decision is made, however, both section 108 and section 115 provide that the Administrator shall take certain action.

197. Id. § 7602(e).
199. 15 U.S.C. §§ 12-27 (1976). Section 15 of the Clayton Act allows: “any person” injured by a violation of antitrust laws to sue in any United States district court. Id. at § 12. Section 7 of the Act provides that “the word ‘person’ . . . shall be deemed to include corporations and associations existing under or authorized by the laws of either the United States, the laws of any of the Territories, the laws of any State, or the laws of any foreign country.” Id. at § 7.
200. 434 U.S. at 318-319.
the Clean Air Act. Additionally, a Canadian citizen should be a “person” within the meaning of section 302.

Canada will face a second difficulty in a suit to force the present EPA Administrator to act on Costle’s findings. The results of the modeling and testing of long-range air pollution are somewhat malleable. The current EPA Administrator could review the reports Costle based his finding on and determine that the evidence that pollution from the United States adversely affects the health or public welfare in Canada is not sufficient to trigger section 115. Thus, the ultimate decision whether section 115 can be activated may depend on political predilection, as well as scientific findings.

The Canadian Government can take three steps to increase the likelihood that the EPA will use section 115 to control transboundary air pollution. First, Costle’s finding of reciprocity was based on an assumption that the phrase “welfare of persons” in section 21.1 of the Canadian Clean Air Act “will be interpreted to have

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201. The Clayton Act, however, makes no reference to any political entity. Sections 304 and 302(e) of the Clean Air Act explicitly grant standing to political entities of the United States. The omission of political entities of foreign governments in a statute that grants standing to U.S. political entities is, perhaps, more significant than the omission of foreign political entities from a statute that does not mention any political entities. The use of the word “includes” in section 304, however, indicates that its list is not exclusive. See Note, supra note 19, at 179.

202. In the absence of a Congressional grant of standing, a plaintiff must satisfy a two-prong test to have standing in federal court. First, the plaintiff must satisfy the requirements of article III of the U.S. Constitution. The Supreme Court has held that article III requires a showing of actual or threatened injury, an injury fairly traceable to the supposedly illegal conduct, and an injury likely to be redressed by a favorable decision. Valley Forge Christian College v. Americans United for Separation of Church and State, Inc., 454 U.S. 464 (1982). In addition to this constitutional limitation on standing, the Supreme Court has held that the plaintiff’s interest must arguably fall “within the zone of interests to be protected or regulated by the statute ....” Ass’n of Data Processing Orgs. v. Camp, 397 U.S. 150, 153 (1970).

The above requirements should not be a barrier to a suit by Canada, a Canadian Province, or a Canadian citizen under section 115. By authorizing “any person” to sue to enforce the Administrator’s nondiscretionary duty, Congress has arguably obviated the need to show any additional injury. Cf. Trafficante v. Metropolitan Life Ins. Co., 409 U.S. 205 (1972). In any event, a Canadian plaintiff should be able to satisfy article III’s injury-in-fact requirement. Cf. United States v. Students Challenging Regulatory Agency Procedures (SCRAP), 412 U.S. 669 (1973) (environmental group had standing to challenge railroad freight increases that it claimed would discourage the recycling of goods, stimulate the demand for natural resources, and thereby adversely affect the natural environment its members used for recreational purposes). Because section 115 is designed to protect foreign countries and foreign citizens, a Canadian citizen or a representative of the Canadian federal or provincial government would clearly be within “the zone interest to be protected or regulated by statute ....” Ass’n of Data Processing Orgs. v. Camp, 397 U.S. at 153.

203. A court could then reverse the Administrator’s action only if it were arbitrary and capricious, an abuse of discretion, or otherwise not in accordance with the law. 42 U.S.C. § 7607(9). (Supp. IV 1980).

As of March, 1983, the EPA had not issued any statement challenging Costle’s finding. See supra note 192 and accompanying text.
essentially the same coverage as the Section 115 phrase . . . 'public health or welfare.' ”204 The EPA, under the Reagan administration, may not make this assumption. Thus, the Canadian Parliament should amend section 21.1 by including a definition of “welfare of persons” that will insure coverage equal to that provided by section 115. Because section 21.1 was passed unanimously,205 a clarification of the phrase that will help effectuate the original intent of Parliament should meet little resistance. Second, the Canadian Environmental Minister and Governor in Council should assure the United States that they will implement a broad definition of “welfare of persons” for section 21.1. Third, the Governor in Council should acknowledge and demonstrate a willingness to prescribe mandatory federal emission limits if provincial action is not adequate.

VII

CONCLUSION

Canada and the United States share a five thousand mile border.206 Thus, successful control of air pollution in one country is inextricably intertwined with adequate control in the other. Canada and the United States have traditionally cooperated to solve their common environmental problems.207

A failure by the United States to satisfy Canadian concerns over acid rain could lead to a deterioration of historically cordial United States-Canadian relations. At a time when Canada’s energy policy208 and the unratified United States-Canadian Fishing Treaty209 strain the usual tranquil United States-Canadian relations,210 the United States should be sensitive to Canadian concern about acid rain. If the United States fails to take meaningful steps to control acid rain, Canada may be tempted to retaliate with an increase in the

204. Costle Letter, supra note 188, at 5.
205. Roberts, supra note 165, at 7.
206. I. VANLIER, ACID RAIN AND INTERNATIONAL LAW, supra note 13, at 172.
207. See supra notes 37-53 and accompanying text.
208. Canada is in the fortunate position of being a net energy exporter. United States-Canadian Relations and Acid Rain, supra note 13, at 18 (statement of Raymond C. Ewing, Deputy Assist. Sec. of State for European Affairs). The United States, however, is concerned with the Canadian energy policies because Canada’s National Energy Program (NEP) “tends to discriminate against foreign owned firms by not providing ‘National Treatment’ in accordance with the OCED Investment Code.” Id.
209. Extension of Canadian and American fishing jurisdictions to 200 miles in 1977 has resulted in conflicting claims over fishery resources. Id. at 19. The most important of these claims involves the East Coast Boundary in the Gulf of Maine. Id. After lengthy negotiations, in 1979 Canada and the United States signed the East Coast Fisheries Treaty and the East Coast Boundary Treaty. Id. President Reagan withdrew the Fisheries Treaty from Senate consideration in anticipation of Senate disapproval. Id.
price, or a restriction on the export, of vital natural resources that the United States imports from Canada. 211

Congress enacted section 115 to protect foreign countries from pollution originating in the United States. 212 Before Canada can bring an action under section 115, it must provide the United States with rights reciprocal to those provided to it by the United States Clean Air Act. Under a functional definition of reciprocity, Canada’s actual achievement of this result is more important than the method used. Through a combination of provincial and federal controls, Canada has exhibited the ability and desire to provide the United States with essentially reciprocal rights. Thus, the United States should use section 115 to limit emissions that cause acid rain in Canada. A failure to do so could jeopardize United States-Canadian relations, and will impair the development of any bilateral agreement on transboundary air pollution.

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211. See United States-Canadian Relations and Acid Rain, supra note 13, at 9. (statement of former Rep. Anthony Toby Moffet, quoting the National Clean Air Coalition).

United States cooperation with Canada in a broad range of political, economic, cultural, commercial, and defense matters is greater than its cooperation with any other nation. Id. at 16 (statement of Raymond C. Ewing, Deputy Assist. Sec. of State for European Affairs). United States-Canadian bilateral trade and investment is the largest in the world. Id. at 17. In 1980, trade between the two countries exceeded 77 billion dollars; “at the end of 1979 book value of foreign direct investment going both ways was 48 billion dollars.” Id. at 17.

212. See supra notes 91-92 and accompanying text.