

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

INTRODUCTION

The United States and Canadian governments have recognized acid rain¹ 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.² Canadian negotiators met with United States officials in Washington in February, 1982 to discuss the details of the proposed bilateral agreement.³

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.⁴ The Canadian government has criticized the Reagan administration's proposed changes to the United States Clean Air Act⁵ and has also charged the United States with violating the Memorandum of Intent.⁶ As a result, Canada has threatened to take legal action.⁷

Canada is considering using section 115 of the United States Clean Air Act⁸ to force the United States to reduce emissions that

1. For a definition of acid rain, see *infra* notes 13-16 and accompanying text.

2. Memorandum of Intent Between the Government of the United States of America and the Government of Canada Concerning Transboundary Air Pollution, Aug. 5, 1980, T.I.A.S. No. 9856, reprinted in 20 INT'L LEGAL MATERIALS 690. [hereinafter cited as Memorandum of Intent].

3. See Wall St. J., Feb. 24, 1982, at 18, col. 1. See *infra* notes 60-61 and accompanying text.

4. See *infra* notes 57-72 and accompanying text.

5. 42 U.S.C. §§ 7401-7642 (Supp. IV 1980). See *infra* notes 60-77 and accompanying text.

6. 4 INT'L ENV'T REP.: CURRENT REP. (BNA) 971 (Aug. 12, 1981).

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

nature, the Administrator shall give formal notification thereof to the Governor of the State in which such emissions originate.

(b) The notice of the Administrator shall be deemed to be a finding under section 7410(a)(2)(H)(ii) of this title which requires a plan revision with respect to so much of the applicable implementation plan as is inadequate to prevent or eliminate the endangerment referred to in subsection (a) of this section. Any foreign country so affected by such emission of pollutant or pollutants shall be invited to appear at any public hearing associated with any revision of the appropriate portion of the applicable implementation plan.

(c) This section shall apply only to a foreign country which the Administrator 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 section.

Id.

9. See 4 INT'L ENV'T REP.: CURRENT REP. (BNA) 1075 (Nov. 11, 1981). See also *infra* notes 162-64 and accompanying text.

10. *Id.* See *infra* note 82 and accompanying text.

11. 42 U.S.C. § 7415(c) (Supp. IV 1980). See *infra* note 83 and accompanying text.

12. See *infra* notes 151-64 and accompanying text.

13. *United States-Canadian Relations And Acid Rain: Hearing Before the Subcomms. on Human Rights and International Organizations and on Inter-American Affairs of the House Comm. on Foreign Affairs, 97th Cong., 1st Sess. 6 (1981)* [hereinafter cited as *United States-Canadian Relations and Acid Rain*]. See also I. VANLIER, *ACID RAIN AND INTERNATIONAL LAW* 8-14 (1981). For a historical account of world-wide progress in

produces sulfur and nitrogen oxides, is its principle cause.¹⁴ The winds are able to carry the sulfur and nitrogen oxides miles from their origin.¹⁵ During atmospheric transport, oxygen reacts with these oxides and transforms them into compounds that make precipitation acidic.¹⁶

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. L. REP. (ENVTL. L. 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. ENVIRONMENTAL PROTECTION AGENCY, RESEARCH SUMMARY: ACID RAIN (1979), reprinted in *Acid Rain: Hearings Before the Subcomm. of Oversight and Investigation of the House Comm. on Interstate and Foreign Commerce*, 96th Cong., 2d Sess. 205, 209 (1980) [hereinafter cited as EPA RESEARCH SUMMARY].

14. I. VANLIER, *supra* note 13, at 4. Sulfur dioxide causes approximately two thirds and nitrogen oxides about one third of the acidity in precipitation. UNITED STATES-CANADA RESEARCH CONSULTATION GROUP OF THE LONG-RANGE TRANSPORT OF AIR POLLUTANTS, THE LRTAP PROBLEM IN NORTH AMERICA: A PRELIMINARY OVERVIEW 1 (1979) [hereinafter cited as LRTAP REPORT].

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.¹⁷ In the Adirondack Mountains of New York, 228 lakes can no longer support aquatic life because of acid rain and hundreds more are threatened.¹⁸ In Ontario, between 2,000 and 4,000 lakes can no longer support life¹⁹ and approximately 48,000 are threatened.²⁰

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.²¹ 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.²² Acid rain also damages paints, plastics, and other synthetic materials.²³

17. *United States-Canadian Relations and Acid Rain*, *supra* note 13, at 53; I. VAN-LIER, *supra* note 13, at 15-30. The EPA RESEARCH SUMMARY reports that the effects of acid rain include:

- acidification of lakes, rivers and groundwaters resulting in damage to fish and other components of aquatic ecosystems
- acidification and release of metals from soils
- possible reductions in forest productivity
- possible damage to agricultural crops
- deterioration of man-made materials such as buildings, statuary, metal structures, and paint
- possible contamination of drinking water supplies by metals being released from soils and pipelines

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

18. *United States-Canadian Relations and Acid Rain*, *supra* note 13, at 100. One report estimates that the Adirondack region loses over one million dollars a year because of the decline in sports fishery. LRTAP REPORT, *supra* note 14, at 17.

19. Note, *Acid Rain, Canada, and the United States: Enforcing the International Pollution Provision of the Clean Air Act*, 1 B.U. INT'L L.J. 151, 157 (1982).

20. Wetstone, *supra* note 13, at 50,002. The threat of acid rain may be more ominous in Canada than in the United States. The extent of ecological damage caused by acid rain is often a function of the affected environment's ability to neutralize acids. Natural buffers, such as calcium and limestone, neutralize acid rain. An area with few natural buffers is "acid-sensitive." Canada possesses more acid-sensitive areas than the United States. *Id.* *See also* Galloway & Cowling, *The Effects of Precipitation on Aquatic and Terrestrial Ecosystems—A Proposed Precipitation Chemistry Network*, 28 J. AIR POLLUTION CONTROL A. 229-35, figure 5 (Mar. 1978), reprinted in LRTAP REPORT, *supra* note 14, at figure 7. In 1979, a Canadian-United States Research Group reported that deposition rates in Central and Atlantic Canada were at that time 100 to 1,000 times greater than the absorptive capacity of the ecosystem. *Acid Rain: Hearing Before the Subcomm. on Oversight and Investigation of the House Comm. on Interstate and Foreign Commerce*, 96th Cong., 2d Sess. 7 (1980) [hereinafter cited as *1980 Acid Rain Hearing*].

21. *Clean Air Act Oversight Field Hearings: Hearings Before the Senate Comm. on Environment and Public Works*, 97th Cong., 1st Sess. 129 (1981) [hereinafter cited as *Clean Air Act Hearings*]. Acid rain corrodes building materials. Wood, metals, and masonry that contains carbonates, such as marble and limestone, are particularly affected. Note, *supra* note 19, at 159.

22. *United States-Canadian Relations and Acid Rain*, *supra* note 13, at 7. 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.

23. Note, *supra* note 19, at 159.

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 York²⁷ 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-

24. *United States-Canadian Relations and Acid Rain*, *supra* note 13, at 7. Canada estimates that the United States is responsible for eighty-five percent of the 32 million metric tons of sulfur oxides and ninety-one percent of the 22 million metric tons of nitrogen oxides emitted in North America. Wall St. J., Feb. 24, 1982, at 18, col. 1. These figures, although accurate, can be deceiving. For example, although the United States emits a greater volume of sulfur dioxide than Canada, the United States has ten times the population of Canada and more than ten times the industrial base. Yet, the United States emits only five and one half times, rather than ten times, more sulfur dioxide than Canada. See 81 DEP'T ST. BULL. 36 (Dec. 1981).

25. 2 INT'L ENV'T REP.: CURRENT REP. (BNA) 764 (July 11, 1979). Scientific monitoring indicates that approximately four million metric tons of sulfur dioxide travel from the United States to Canada annually. LRTAP REPORT, *supra* note 14, at 10-11.

26. *Clean Air Act Hearings*, *supra* note 21, at 126 (statement of Canadian Coalition on Acid Rain). An EPA study indicates that eighteen percent of the acid rain in the northeastern United States, excluding New York and New Jersey, is caused by pollution emitted in Canada. 10 [Current Developments] ENVTL. REP. (BNA) 2147-48 (March 21, 1980).

27. See *supra* note 18 and accompanying text.

28. 2 INT'L ENV'T REP.: CURRENT REP. (BNA) 578-79 (March 10, 1979). U.S. officials claim that much of this pollution is emitted by the International Nickel Company (INCO) in Ontario. Ontario, however, has recently limited INCO's emissions, see *infra* note 135 and accompanying text.

29. Clean Air Act, 42 U.S.C. §§ 7401-7642 (Supp. IV 1980). The Clean Air Act adopts a tripartite approach to air pollution control. First, it requires the EPA to set national ambient air quality standards. *Id.* § 7409. Ambient air is "that portion of the atmosphere, external to buildings, to which the general public has access." 40 C.F.R. § 50.1(e) (1982). There are two types of national ambient air quality standards (NAAQS). A primary NAAQS is one that the EPA decides is necessary to protect health and safety. 42 U.S.C. § 7409(b)(1) (Supp. IV 1980). A secondary NAAQS is one that the EPA deems necessary to protect the public welfare. *Id.* § 7409(b)(2). The Act defines public welfare broadly. *Id.* § 7602(h); see *infra* note 96 and accompanying text. Each state must adopt an implementation plan designed to attain the national air quality stan-

cally with acid rain, it allows the EPA to address the problem indirectly by formulating and enforcing emission controls and air quality

dards. 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(e) (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;³⁰ 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.³¹ If the EPA Administrator determines that a state's implementation plan will not achieve national air quality standards within a certain period,³² the EPA must intercede and publish a plan for the recalcitrant state.³³ 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.³⁴ Carter also established a ten year Federal Acid Rain Assessment Program,³⁵ which was officially endorsed by Congress in the Acid Rain Precipitation Act of 1980.³⁶

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.

33. 42 U.S.C. § 7410(c)(1) (Supp. IV 1980).

34. President Carter's Environmental Message to Congress, PUB. PAPERS 1353, 1372 (Aug. 2, 1979).

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.*

36. Acid Precipitation Act of 1980, 42 U.S.C. §§ 8901-8905 (Supp. IV 1980). The Act was passed as Title VII of the Energy Security Act of 1980, Pub. L. No. 96-294, 94 Stat. 770 (1980). In this Act, Congress recognized that acid rain:

- (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.³⁷ 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.³⁸ Canada and the United States agreed to submit the dispute to the International Joint Commission (IJC),³⁹ and to be bound by the IJC's decision.⁴⁰ Canada had admitted liability;⁴¹ 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.⁴²

(6) could affect areas distant from sources and thus involve issues of national and international policy.

42 U.S.C. § 8901(a).

The Act established the Interagency Acid Rain Task Force, which is co-chaired by the Secretary of Agriculture, the EPA Administrator, and the National Oceanic and Atmospheric Administration. *Id.* § 8902(a).

It is interesting to note that several European nations have been pursuing acid rain research for some time. For example, Sweden formally began research in 1948. *United States Relations and Acid Rain*, *supra* note 13, at 6.

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.

38. Trail Smelter Arbitration (U.S. v. Can.) 3 R. Int'l Arb. Awards 1905 (1941), reprinted in 35 AM. J. INT'L L. 684 (1941) [hereinafter cited as Trail Smelter Arbitration]. See also Bourne, *Trail Smelter Arbitration: Oral Proceedings*, 50 OR. L. REV. 283 (1971); Read, *The Trail Smelter Dispute*, 1 CAN. Y.B. INT'L L. 213 (1963).

39. See *supra* note 37.

40. See Rosencranz, *The International Law and Politics of Acid Rain*, 10 DEN. J. INT'L L. & POL'Y 511, 512-13 (1981).

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.⁴³ 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.⁴⁴

In recent years, the United States and Canada have begun to work towards a bilateral agreement specifically addressing the problem of acid rain.⁴⁵ In 1978, the two countries established the Bilateral Research Consultation Group on Long-Range Transport of Air Pollutants (LRTAP).⁴⁶ In July 1979, the United States and Canada issued a "Joint Statement on Transboundary Air Quality"⁴⁷ expressing their "common determination to reduce or prevent transboundary air pollution which injures health or property."⁴⁸ 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).

43. Great Lakes Water Quality Agreement of 1978, Nov. 22, 1978, United States-Canada, 30 U.S.T. 1383, T.I.A.S. No. 9257.

44. 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(1)(e), 30 U.S.T. 1392-93, T.I.A.S. No. 9257, at 10-11.

45. 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.

U.S.-Canada Negotiations on Air Quality, Pub. L. No. 95-426, § 612, 92 Stat. 990 (1978) (codified at 42 U.S.C. § 7415 (Supp. IV 1980)).

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

47. Joint Statement on Transboundary Air Quality by the Government of Canada and the Government of the United States, July 26, 1979, reprinted in 79 DEPT. ST. BULL. 26 (Nov. 1979).

48. *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 concertedly 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-

-
- Prevention and reduction of transboundary air pollution. . . .
 - Control strategies aimed at preventing and reducing transboundary air pollution
 - Expanded notification and consultation on matters involving a risk or potential risk of transboundary air pollution
 -
 - Consideration of such matters as institutional arrangements, equal access, non-discrimination and liability and compensation

Id.

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.

55. 4 INT'L ENV'T REP.: CURRENT REP. (BNA) 921, 922 (July 8, 1981).

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

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. 4 INT'L ENV'T REP.: CURRENT REP. (BNA) 871 (June 10, 1981).

58. 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:

[t]he 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.

Report of the National Commission on Air Quality and the Academy of Sciences: Joint Hearings Before the Senate Comm. on Environment and Public Works and the Subcomm. on Health and the Environment of the House Comm. on Energy and Commerce, 97th Cong., 1st Sess. 22 (1981). Utility companies and associations like the Edison Electric Institute may feel compelled to respond to the widespread, and sometimes sensationalist, media coverage of acid rain. See, e.g., Rosenfeld, *Forecast: Poisonous Rain*, SAT. REV., Sept. 2, 1978, at 16; Zern, *Death From the Sky*, FIELD AND STREAM, July 1979, at 18.

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.⁶⁰ The United States rejected the proposal as "scientifically premature," and far too costly considering the condition of the economy.⁶¹

Proposed changes in the United States Clean Air Act pose a serious threat to United States-Canadian cooperative efforts to control acid rain.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."⁶³ Canadian Federal Environmental Minister John Roberts stated that the Canadians "are concerned over the impending review of the Clean Air Act."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."⁶⁵

A 1981 administration draft bill indicated that Canada's concern about United States pollution policy is justified.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;⁶⁷ accepting any dispersion technique in use before 1977 as a substitute for pollution control;⁶⁸ extending the EPA's authority to exempt smelters

60. 5 INT'L ENV'T REP.: CURRENT REP. (BNA) 312, 313 (Aug. 11, 1982).

61. *Id.* In February 1983, Canada renewed its offer. N.Y. Times, Feb. 22, 1983, at C5, col. 3.

62. Funding for the Clean Air Act ran out in the fall of 1981. 42 U.S.C. § 7626(a) (Supp. IV 1980). Congress appropriated interim funding through a series of resolutions. H.R.J. Res. 370, 97th Cong., 1st Sess., 127 CONG. REC. H9102 (daily ed. Dec. 10, 1981); H.R.J. Res. 325, 97th Cong., 1st Sess., 127 CONG. REC. H6283 (daily ed. Sep. 16, 1981); H.R.J. Res. 357, 97th Cong., 1st Sess., 127 CONG. REC. H8313 (daily ed. Nov. 16, 1981). Congress appropriated funds for the Clean Air Act for fiscal year 1982 under Title II of Pub. L. No. 97-101, 95 Stat. 1417 (1982). See Note, *supra* note 19, at 172 n.187.

63. 4 INT'L ENV'T REP.: CURRENT REP. (BNA) 1039 (Oct. 14, 1981).

64. 4 INT'L ENV'T REP.: CURRENT REP. (BNA) 920, 921 (July 8, 1981).

65. *United States-Canadian Relations and Acid Rain*, *supra* note 13, at 8. (statement of former Representative Anthony Toby Moffett, former Chairman, Environment, Energy and Natural Resources Subcommittee).

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.

67. *Clean Air Act Oversight Hearings*, *supra* note 66, at 135. See 42 U.S.C. §§ 7410(a)(2)(E)(i)(I), 7426 (Supp. IV 1980).

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;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.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. . . ."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.⁷² These principles, which were approved by President Reagan,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.⁷⁴ Unlike the Reagan administration's draft bill,⁷⁵ H.R. 5252 does not change the existing regulation of tall stacks and smelters.⁷⁶ It also leaves unchanged the new source performance standards⁷⁷ for fossil-fuel fired power plants.⁷⁸ The proposed bill would, however, relax automobile tail pipe emission

69. *Clean Air Act Oversight Hearings*, *supra* note 66, at 133.

70. *Id.* at 124. See 42 U.S.C. § 7410(c)(1) (Supp. IV 1980); *supra* notes 30-33.

71. 4 INT'L ENV'T REP.: CURRENT REP. (BNA) 1039 (Oct. 14, 1981). U.S. commentators also criticized the draft bill. Representative Waxman labeled the bill "a blue print for the destruction of our clean air laws." 108 PUB. UTIL. FORT. 41 (July 16, 1981). Senator Hart urged that "all of us who care about the air we breathe should speak out strongly against this proposal." *Clean Air Act Oversight Hearings*, *supra* note 66, at 120.

72. *Administration Announces Clean Air Act Principles*, 108 PUB. UTIL. FORT. 41 (Aug. 27, 1981) [hereinafter cited as *Clean Air Act Principles*].

In November, 1981, the Reagan administration submitted a proposal to the Senate that is generally consistent with the principles Burford announced. In line with the Reagan administration's emphasis on a new federalism, the role of the states is enhanced. See 12 [Current Developments] ENV'T REP. (BNA) 875 (Nov. 13, 1981).

73. *Clean Air Act Principles*, *supra* note 72, at 41.

74. 5 INT'L ENV'T REP. (BNA) 11 (Jan. 13, 1982) (statement of Kathleen Bennett, Assistant Administrator, Office of Air, Noise, and Radiation). Bennett noted that the bill "needs adjustment." *Id.* The bill, H.R. 5252, 97th Cong., 1st Sess., 127 CONG. REC. H9928 (1981), was introduced December 16, 1981 by Representative Thomas A. Luken (D-Ohio) and had broad industry support. 5 INT'L ENV'T REP.: CURRENT REP. (BNA) 11 (Jan. 13, 1982).

75. See *supra* notes 66-70 and accompanying text.

76. 5 INT'L ENV'T REP.: CURRENT REP. (BNA) 11 (Jan. 13, 1982).

77. 42 U.S.C. § 7411 (Supp. IV 1980). See *supra* note 29. New or modified stationary sources of air pollution that the EPA finds contribute significantly to air pollution must comply with a "standard of performance." *Id.* § 7411(b)(1)(A)-(B). A "standard of performance" must reflect the degree of emission limitation and reduction achievable through application of the "best technological system of continuous emission reduction which (taking into consideration the cost of achieving such emission reduction, any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated." *Id.* § 7411(a)(1)(B). This limit replaces and is more stringent than the SIP emission limitations established pursuant to the ambient air standards. Wetstone, *supra* note 16, at 50,007.

78. 5 INT'L ENV'T REP.: CURRENT REP. (BNA) 11 (Jan. 13, 1982).

standards for nitrogen dioxide.⁷⁹ Finally, and perhaps most significantly, H.R. 5252 does not directly address the problem of acid precipitation.⁸⁰

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.⁸¹ 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. . . ."⁸² 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 contribute⁸³ to pollution that may endanger public health or welfare in another country.⁸⁴ 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.

Several Representatives and Senators have introduced bills that deal with acid rain: Senator Mitchell (D-ME) introduced the Acid Rain Deposition Control Act, S. 1706, 97th Cong., 1st Sess., 127 CONG. REC. S11, 117 (daily ed. Oct. 6, 1981); Senator Moynihan (D-NY) introduced the Acid Deposition Control Act, S. 1709, 97th Cong., 1st Sess., 127 CONG. REC. S11, 157 (daily ed. Oct. 6, 1981); Senator Dodd (D-CT) introduced S. 1718, 97th Cong., 1st Sess., 127 CONG. REC. S11, 253 (daily ed. Oct. 7, 1981); finally, Representative Gregg (R-NH) introduced the Acid Rain Research Implementation Act, H.R. 4830, 97th Cong., 1st Sess. 127 CONG. REC. H7729 (daily ed. Oct. 22, 1981). For a brief explanation of these bills, see Note, *supra* note 19, at 172-74.

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

82. 42 U.S.C. § 7415 (Supp. IV 1980).

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.

42 U.S.C. § 7602(h) (Supp. IV 1980).

duly constituted international agency.⁸⁵ 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]."⁸⁶

Duly constituted international organizations have found that pollution from the United States does adversely affect Canada.⁸⁷ 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.⁸⁸

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 1965,⁸⁹ section 115's predecessor, had reciprocity language virtually identical to the language in section 115,⁹⁰ 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.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 of [sic] 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.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

89. Act of Oct. 20, 1965, Pub. L. No. 89-272, 79 Stat. 992, 995 (current version at 42 U.S.C. § 7415(c) (Supp. IV 1980)). Section 102 was renumbered section 108 by the Air Quality Act of 1967, Pub. L. No. 90-148, 81 Stat. 485, 494. Section 108 was renumbered section 115 by the Clean Air Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676, 1678.

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

93. See LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1977 (1977) (8 volume collection).

94. 79 Stat. 992, 995 (emphasis added).

95. Clean Air Act Amendments of 1977, Pub. L. No. 95-95, § 115, 91 Stat. 685, 710 (1977) (current version at 42 U.S.C. 7415(a) (Supp. IV 1980)).

96. 42 U.S.C. § 7602(h) (Supp. IV 1980). See *supra* note 84 and accompanying text.

97. See *supra* note 89. Before the 1977 Amendments, section 102 was enforced through the use of an enforcement conference. *Id.*

98. SENATE COMMITTEE ON ENVIRONMENT AND PUBLIC WORKS, CLEAN AIR AMENDMENTS OF 1977, S. REP. NO. 127, 95th Cong., 1st Sess. 57 (1977), reprinted in 3 LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1977, at 1431 (1977). See also W. ROGERS, JR., HANDBOOK ON ENVIRONMENTAL LAW § 3.2 (1977).

99. In 1980 Congress made some minor changes in the Clean Air Act. Section 115 was not altered. Act of July 2, 1980, Pub. L. No. 96-300, § 323, 94 Stat. 831.

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

however, have to be identical. For example, if the law of country *A* provided that the government *had to* take specified action, while the law of country *B* provided that the government *could* take such action, there would be no statutory reciprocity.

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.

Id.

105. See *supra* notes 24-28 and accompanying text.

pollution Therefore the bill provides remedies for foreign countries adversely affected by air pollution emanating from the United States¹⁰⁶

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).

110. 16 U.S.C. §§ 1801-1882 (1976 & Supp. V 1981).

111. *Id.* at § 1821(g).

112. H.R. REP. NO. 445, 94th Cong., 1st Sess. 52, reprinted in 1976 U.S. CODE CONG. & AD. NEWS 593, 620 (emphasis added).

reciprocity requirement, it is concerned with consistency of policy rather than symmetry of legislation.

The Mineral Lands Leasing Act (MLLA)¹¹³ 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.¹¹⁴

In his recent interpretation of the Act, Secretary Watt rejected a statutory definition of reciprocity in favor of a two-part functional approach test.¹¹⁵ 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.¹¹⁶ 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.¹¹⁷

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.¹¹⁸ Applying his two-part test to Canada, Secretary Watt determined that Canada satisfies the reciprocity requirement of the MLLA.¹¹⁹ 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.¹²⁰

113. 30 U.S.C. § 181 (1976 & Supp. V 1981).

114. 30 U.S.C. § 181 (Supp. V 1981).

115. Secretarial Decision Paper: Reciprocity of Canada (Feb. 2, 1982) (on file at Cornell International Law Journal).

116. *Id.* at 3.

117. *Id.*

118. Canada Oil and Gas Act, ch. 81, 1980-1981 Can. Stat. 2655, 2664-65 (amending Oil and Gas Production and Conservation Act).

119. Secretarial Decision Paper: Reciprocity of Canada (Feb. 2, 1982) (on file at Cornell International Law Journal).

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.

Other statutes with reciprocity requirements include: 33 U.S.C. § 1320 (1976) (water pollution); 26 U.S.C. § 2014 (1976) (estate taxation); 47 U.S.C. § 305(d) (1976) (radio permits for foreign embassies).

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.¹²¹ The federal role in Canada, however, is primarily one of guidance; the provinces are relatively autonomous.¹²²

The Canadian Clean Air Act is based on the promulgation of *advisory* national air quality objectives.¹²³ 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.¹²⁴

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,¹²⁵ the evidence regarding its effect on human health was less clear.¹²⁶ Second, although Canada and the

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].

123. Clean Air Act, ch. 47, 1970-1971 Can. Stat. 951.

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 Intent¹²⁷ and the Convention on Long-Range Transboundary Air Pollution,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.

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, *The Transnational Implications of Acid Rain, Health Issues*, 5 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.

127. See *supra* notes 2 & 49 and accompanying text.

128. *Convention on Long-Range Transboundary Air Pollution*, U.N. Doc. ECE/HLM.1/R.1 (1979), reprinted in 18 INT'L LEGAL MATERIALS 1442 (1979) [hereinafter cited as *Long-Range Transboundary Air Pollution*]. The United States, Canada, and thirty-three other nations have signed the convention. Note, *Environmental Modification - Convention on Long-Range Transboundary Air Pollution*, 21 HARV. INT'L L.J. 536, 536 (1980) [hereinafter cited as Note, *Environmental Modification*]. The agreement calls on the signatories to control transboundary air pollution through exchange of information, research, consultation, and monitoring. *Long-Range Transboundary Air Pollution*, *supra* 18 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, *Environmental Modification*, *supra*, at 536.

Another pertinent international agreement is the Declaration of the United Nations Conference on the Human Environment. Report of the United Nations Conference on the Human Environment, 1 U.N. GAOR (21st plen. mts.) at 3, U.N. Doc. A/CONF. 48/141, Rev. 1 (1972), reprinted in 11 INT'L LEGAL MATERIALS 1416 (1972). Principle 21 of the Declaration states that:

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.

Id. at 5, 11 INT'L LEGAL MATERIALS at 1420. Principle 22 provides that:

States shall co-operate 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.

Id. at 5, 11 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, PROTECTING THE HUMAN ENVIRONMENT: PROCEDURES AND PRINCIPLES FOR PREVENTING AND RESOLVING INTERNATIONAL CONTROVERSIES 40 (1977); 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.¹²⁹ As of 1980, five provinces—Alberta, Manitoba, New Brunswick, Ontario, and Saskatchewan—had adopted the advisory air quality objectives recommended by the federal government.¹³⁰ 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.¹³¹

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 1978.¹³² By 1978, INCO had reduced its daily emissions to approximately 3,000 tons.¹³³ The Environmental Minister then revised his order and increased the allowable emissions level to 3,600 tons per day.¹³⁴ 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

129. Many of the provinces have environmental legislation. See ENVIRONMENTAL MEDIATION INTERNATIONAL, THE USE OF SECTION 115 OF THE CLEAN AIR ACT TO CONTROL LONG RANGE TRANSPORT OF AIR POLLUTION BETWEEN THE UNITED STATES AND CANADA—A REPORT FOR ENVIRONMENTAL CANADA AND THE U.S. ENVIRONMENTAL PROTECTION AGENCY 29 (1981) [hereinafter cited as ENVIRONMENTAL MEDIATION INTERNATIONAL REPORT].

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 1982.¹³⁵ This order, in addition to controlling one of Canada's most notorious polluters,¹³⁶ 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's¹³⁸ sulfur dioxide and nitric oxide emissions.¹³⁹ In that same month, Ontario Hydro agreed to use gas scrubbers and low NOX burners.¹⁴⁰ This effort to reduce emissions at Ontario Hydro will cost approximately 500 million dollars¹⁴¹ and will increase electricity rates by about two percent.¹⁴² 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.¹⁴³

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-

135. Ont. Regs. 712/80 (Sept. 2, 1980), *reprinted in* Ont. Gaz. 3817 (Sept. 20, 1980). This represents a seventy percent reduction in the emission levels of a decade ago. Robinson Statement, *supra* note 122, at 524.

A Federal-Provincial task force has been established to determine the lowest economically and technically feasible emission rate for INCO. The task force report should provide a basis for further reduction of INCO's emissions. *Id.*

Some Canadians predict INCO will eventually be required to reduce emissions below 1,000 tons per day. *Clean Air Act Oversight (Field Hearings): Hearings Before the Senate Comm. on Environment and Public Works, 97th Cong., 1st Sess. pt. 6, at 126 (1981)* (statement of Adele Hunley, Executive Coordinator, Canadian Coalition on Acid Rain).

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. 3 INT'L ENV'T REP.: CURRENT REP. (BNA) 474 (Oct. 8, 1980).

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

139. Ont. Regs. 73/81 (Feb. 17, 1981) *reprinted in* Ont. Gaz. 159 (Mar. 7, 1981).

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,¹⁴⁴ its operating permit from the provincial government required the most comprehensive monitoring procedures ever applied to a coal-fired thermal plant in Saskatchewan.¹⁴⁵ 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.¹⁴⁶ Moreover, Canada has pledged to monitor the Saskatchewan plant emissions and sulfur dioxide concentrations to take account of United States air quality concerns.¹⁴⁷ The Saskatchewan government also has contingent regulations that require the installation of sulfur scrubbers if they should become necessary.¹⁴⁸

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.¹⁴⁹ The government hoped to achieve at least a forty percent reduction in these emissions.¹⁵⁰

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 Act¹⁵¹ in an effort to satisfy the reciprocity requirement of section 115 of the United States' Clean Air Act.¹⁵² 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.*

151. 1970-1972 CAN. REV. STAT. ch. 47.

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,"¹⁵³ he shall "recommend to the Governor in Council"¹⁵⁴ . . . such specific emission standards . . . as he may consider appropriate for the elimination or significant reduction of that danger."¹⁵⁵ Except with regard to federal sources,¹⁵⁶ 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.¹⁵⁷ If the province has the ability to take legal action to abate the problem, the Minister must attempt to procure such action.¹⁵⁸ If the Minister concludes that the province is unable to solve the problem on its own, he may recommend emission limits.¹⁵⁹ The foreign country that is affected by the pollution must be allowed to "make representations" with respect to these recommendations.¹⁶⁰ 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

nor in Council with respect to that source or each of those sources, as the case may be, such specific emission standards in relation to that air contaminant, either alone or in combination with any one or more other air contaminants, as he may consider appropriate for the elimination or significant reduction of that danger.

1980 Can Gaz. 1160 (Part III).

153. 1980 Can. Gaz. 1160 (Part III) (§ 21.1(1)).

154. General executive power in Canada is vested in the Queen. *See* The British North America Act, 1867, CAN. REV. STAT. No. 5, § 9 (1970) (App. II) (Act name changed from The British North America Act, 1867 by the Constitution Act, 1982). The Queen has delegated her power to the Canadian Governor in Council. *See* Letters Patent Constituting the Office of Governor General of Canada, CAN. REV. STAT. No. 35, art. II (1970) (App. II). When The British North America Act, 1867 requires the Governor in Council to make a decision, the Canadian Cabinet will make the decision and send an "order" of the decision to the Governor in Council for his signature. Because by convention the Governor in Council automatically gives his signature, a decision by the Governor in Council is in fact a decision by the Cabinet. *See* P. HOGG, *supra* note 121, at 146. The Prime Minister appoints the Ministers who head the departments of government. *Id.* at 145. When the Ministers meet as a group, they constitute the Cabinet. *Id.*

155. 1980 Can Gaz. 1160 (Part III) (§ 21.1(1)).

156. *Id.* at 1161 (§ 21.1(3)).

157. *Id.* at 1161 (§ 21.1(3)(a)-(d)).

158. *Id.* at 1162 (§ 21.2(2)).

159. *Id.* at 1161 (§ 21.1(3)).

160. *Id.* at 1161 (§ 21.1(2)(b)).

Act]."¹⁶¹

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:

[t]he 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.¹⁶²

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."¹⁶³ Canadian Parliament member Ronald Irwin has stated that Parliament "passed an amendment which now triggers in with section 115."¹⁶⁴

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.¹⁶⁵ 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.¹⁶⁶ 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-

161. *Id.* at 1162 (§ 21.2(1)). Section 2.1(k) of the Canadian Clean Air Act defines "prescribed" to mean prescribed by regulation. Clean Air Act, ch. 47, 1970-1972 Can. Stat. 951, 952.

162. COMMONS DEBATES (Dec. 16, 1960) reprinted in 20 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).

164. *Clean Air Act Oversight: Hearings Before the Senate Comm. on Environment and Public Works*, 97th Cong., 1st Sess. pt. 6, at 5 (1981).

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.¹⁶⁷ 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.¹⁶⁸ 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"¹⁶⁹ 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.¹⁷⁰ Because evidence regarding the effects of acid rain on the environment¹⁷¹ is presently more conclusive than evidence regarding its effects on persons,¹⁷² 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[d] a significant danger to human health."¹⁷³ 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.¹⁷⁴

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

167. 42 U.S.C. § 7415(a)-(b) (Supp. IV 1980). *See supra* notes 93-96 and accompanying text.

168. 42 U.S.C. § 7602(h) (Supp. IV 1980). *See supra* notes 90-93 and accompanying text.

169. 1980 Can Gaz. 1160 (Part III) (§ 21.1(1)) (emphasis added).

170. 42 U.S.C. § 7415 (Supp. IV 1980).

171. *See supra* notes 17-23 and accompanying text.

172. *See supra* note 126.

173. Clean Air Act, ch. 47, 1970-1971 Can. Stat. 956 § 7(1)(a). *See supra* note 124 and accompanying text.

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

175. 42 U.S.C. § 7415(a) (Supp. IV 1980). *See supra* note 88 and accompanying text.

176. 42 U.S.C. § 7415(b) (Supp. IV 1980).

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

185. Canada Reacts to U.S. Clean Air Act Proposals, Canadian Embassy Public Affairs Division Press Release (Aug. 6, 1981).

186. 3 INT'L ENV'T REP.: CURRENT REP. (BNA) 513 (Nov. 12, 1980).

187. *Id.*

188. Letter from Douglas Costle, former EPA Administrator, to former Senator George Mitchell (Jan. 13, 1981) [hereinafter cited as Costle Letter] (on file at Cornell International Law Journal); *see also* Environmental News, EPA Press Release (Jan. 16, 1981).

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.

Letter from former EPA Administrator Douglas Costle to former Secretary of State Edmund Muskie (Jan. 13, 1981) (on file at Cornell International Law Journal).

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"¹⁹¹ 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.¹⁹²

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.¹⁹³ 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.¹⁹⁴ 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.¹⁹⁵

191. EPA Internal Memorandum from David G. Hawkins, Assistant Administrator, Office of Air, Noise, and Radiation, to Walter C. Barber, Director, Office of Air Quality Planning and Standards (Jan. 13, 1981) (on file at Cornell International Law Journal).

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.

Ohio v. EPA, No. 81-1310 (D.C. Cir. Oct. 19, 1981).

193. 42 U.S.C. § 7604(a)(2) (Supp. IV 1980).

194. 42 U.S.C. § 7415(a) (Supp. IV 1980).

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.¹⁹⁶ 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.¹⁹⁷ 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*,¹⁹⁸ the Court held that India was a "person" entitled to sue under the Clayton Act.¹⁹⁹ The Court noted that there is a presumption that foreign nations are entitled to sue in United States courts.²⁰⁰ *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.

42 U.S.C. § 7408(a)(1)(A)-(C).

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.

196. 42 U.S.C. § 7604(a)(2) (Supp. IV 1980).

197. *Id.* § 7602(e).

198. 434 U.S. 308 (1978).

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.²⁰¹ Additionally, a Canadian citizen should be a "person" within the meaning of section 302.²⁰²

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 115.²⁰³ 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 trans-boundary 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

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 effect 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.*

210. *See* Sheets, *The Undeclared War Between the U.S. and Canada*, U.S. NEWS AND WORLD REP., Sept. 21, 1981, at 65.

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.

