T R A D E A N D E N V I R O N M E N T
A TEACHING CASE
MTBE AND NAFTA

Why doesn't the state of California sue Methanex for the remediation of MTBE contamination, as well as direct, indirect and anticipated human health costs??

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Abstract:

When Governor Gray Davis took steps toward banning MTBE from gasoline, he intended to protect California groundwater basins from further contamination. However, that decision also triggered a major international dispute under NAFTA. Canadian-based Methanex Corporation, the largest manufacturer of methanol (the primary ingredient of MTBE) in the world, filed a claim against the United States government in order to recover lost stock market value and anticipated profits. At least half a dozen similar cases are pending which challenge domestic regulatory decisions under NAFTA's Chapter 11, seeking both compensation and regulatory reversals. This pattern highlights unresolved conflict between domestic environmental regulation and international free trade and foreign investment protections.

The Environmental Problem

Early one August morning in 1995, while performing a routine inspection of water supply operations in the Charnock Wellfield, City of Santa Monica employee Andy Garcia* smelled turpentine in the water. Not a good thing, he thought. It turned out to be MTBE (methyl tertiary butyl ether) contamination from a nearby gas station's leaking underground storage tanks. The city had to shut down these water wells, pending cleanup actions expected to take several years. Then the Arcadia Wellfield tested way too high for MTBE. By 1996, the affluent and trendy City of Santa Monica had lost 50-80 percent of its local water supply wells to the turpentine stench, incurring an estimated cost of $150 million to remediate; and $3.3 million per year to buy replacement water. Then other cities began to complain. A pattern of groundwater pollution was emerging throughout California. Definitely not a good thing.

The MTBE Story

Added to some gasoline by the late 1970s as an octane booster, MTBE was originally hailed as one solution to air pollution. A substitute for the lead in old-fashioned "regular" gasoline (an environmental and public health disaster), MTBE is an oxygenate that helps gasoline burn more completely, thus reducing carbon monoxide and other tailpipe emissions. MTBE is generally preferred over another oxygenate, ethanol, because of its lower cost, ease of production (it is a byproduct of the oil refining process), and favorable blending characteristics with gasoline.

* All employee names are fictitious.

MTBE content in gasoline increased dramatically when the federal Clean Air Act amendments of 1990 required reformulated gasoline (RFG: oxygenated fuel) in the smoggiest locations. For California, this meant MTBE was added to all gasoline sold in the Los Angeles area, Sacramento, and several other major metropolitan areas. The State Air Resources Board credits MTBE with a reduction in emissions of about 15 percent over the last 10 years, a considerable improvement in air quality.

Unfortunately, gasoline escapes into the environment through various pathways: through leaking underground storage tanks (LUSTS), pipelines and spills, vaporizing at refueling operations, at manufacturing and industrial user sites, even from recreational watercraft. MTBE's physicochemical properties allow it to contaminate surface and groundwaters quickly. It is highly soluble, volatile, mobile and persistent, spreading faster and farther than other gasoline components. Even at extremely small percentages, MTBE is detectable in water by its distasteful turpentine smell. Called a "recalcitrant compound", MTBE is resistant to conventional water treatment techniques, and cleanup is very difficult and costly.

In a pattern all too familiar, the environmental savior had become the environmental despoiler. There are no completed studies of long-term effects to humans from exposure to MTBE. Governor Gray Davis and the state legislature commissioned the University of California to do a study of MTBE, and to recommend regulatory action. That report, issued in November 1998 , after a thorough review of all the scientific literature available, found that MTBE caused: 1) objectionable taste and odor in water at concentrations as low as 5 ppm; 2) acute exposure effects of headache, nausea, vomiting, cough, dizziness, disorientation, or eye irritation; 3) cancer in rats, with the potential to cause cancer in humans. The research was inconclusive on whether or not MTBE exacerbated asthma, was neurotoxic, or affected reproductive or developmental processes. These university scientists urged the governor to ban the use of MTBE from his jurisdiction, the State of California.

After consideration and consultation, on March 25, 1999, Governor Davis ordered state agencies to take the initial steps towards the elimination of MTBE from any gasoline sold or used in the state. To allow time for necessary industry adjustments, the ban would be accomplished in a phase-out fashion by the end of 2002.

Another scientific body, the USEPA's Blue Ribbon Panel on Oxygenates in Gasoline, confirmed the UC findings, and recommended on July 27, 1999, a discontinuation of MTBE use. An occurrence survey found MTBE in the groundwaters of 49 states, many of which are developing their own regulations. The federal government is also considering action against MTBE, although currently the EPA has classified it as a "potential carcinogen" and issued only an "advisory" warning to municipal water purveyors. EPA set their advisory limit level based on kidney and liver effects observed in laboratory animal experiments.

The controversy has spawned new research on the health effects of MTBE exposure, air quality impacts, actual occurrence, fate, and transport in the environment, and site remediation and water treatment techniques.

In response to California's actions, the *Shell Corporation* began research into the microbial cleanup treatment of MTBE; the *Tosco Corporation* (76 & Circle K gasoline brands) and *BP Amoco* declared cooperation with government through rapid elimination of MTBE from their products. However, the Canadian *Methanex Corporation*, the major methanol manufacturer, with their market most severely threatened, took a very different action.

NAFTA's Chapter 11 and the Methanex Law Suit

Methanex brought a claim against the United States government under NAFTA's Chapter 11, seeking compensation of US$970 million for business lost due to "indirect expropriation." They claimed that the California measure cost them the loss of anticipated profits, of their customer base and of a substantial portion of the market for methanol. It caused a drop in both the global commodity price and stock market value, reduced return on their capital investments in methanol production facilities, and diminished their "goodwill reputation."

NAFTA's Chapter 11 (see specific text in Annex 1) provides the basic protections of non-discriminatory, fair and equitable treatment for foreign investors, and payment of compensation in cases of expropriation. Its scope and definitions are very broad, and its objectives are to establish a secure investment climate, to remove barriers to investment, and to provide an effective dispute resolution process for disagreements between investors and host governments. Methanex primarily cites Article 1110 on Expropriation and Compensation as the legal basis for their claim, among other pertinent sections of the chapter.

All three parties to NAFTA (Canada, Mexico, and the United States) strongly supported the particular investor protection regime embodied in NAFTA's Chapter 11, under which Methanex brought its claim. Through Chapter 11's unprecedented grant of standing to private companies to directly pursue complaints against sovereign governments, the parties hoped to restore investor confidence. The United States leads the trend toward lifting traditional constraints on standing in international law, going beyond government-to-government legal relations. Chapter 11 allows corporations access to international tribunal arbitration directly, without consulting their home or host governments, and by-passing all domestic legal court systems.

Mexico in particular needed to dispel the persistent corporate memories of its sudden take-over (nationalization) of all the foreign oil industry assets in 1938, and indeed the general historic reputation of capricious and unfair treatment of foreign investors. Mexico is very clear today that direct foreign investment is an essential component of the country's development, offering new jobs and training, increased capital flows, current technologies, infrastructure, and sometimes even environmental leadership.

Attracting such vital investment depends upon a stable "investment-friendly" climate, with no hint of market access restrictions, fear of expropriation, or business operations interference. Reasonable certainty and predictability inspire investor confidence.

NAFTA's Chapter 11 seeks to offer redress for any arbitrary or discriminatory government acts against foreign investors or investments. It presents a very broad scope in defining "expropriation," going beyond the seizure of property or deprivation of full use of the investment to include "creeping expropriation" or "disguised, de facto, or indirect expropriation", or measures "tantamount to expropriation." Both established and future investments are covered. Some U.S. government negotiators have reportedly argued that this legal threat encourages legislators to refrain from passing laws that violate their own international agreements.

This is not the first Chapter 11 case involving gasoline additives. A year earlier in 1998, an apparently similar case had been settled in advance of any arbitration covering the merits of the case. Its cast of characters were reversed from the MTBE case: an American company, Ethyl Corporation, sued the Canadian government, under NAFTA Chapter 11, for regulating Ethyl's gasoline octane booster product MMT (methylcyclopentadienyl manganese tricarbonyl). Canada finally paid Ethyl Corporation about US$13 million dollars and revoked the MMT regulation.

The MMT Story

Virginia-based Ethyl Corporation is the sole North American producer of MMT, known commercially as HiTec 3000, which it distributes through its subsidiary, Ethyl Canada, Inc., located in Ontario. Also a fuel additive which boosts octane in gasoline and thus reduces engine "knocking", increases the efficiency of gasoline production, and cuts nitrogen oxide emissions, MMT replaced lead in some gasolines as early as 1977. Ethyl was also the primary producer of lead gasoline additive, which was finally completely banned from United States gasoline in 1995, after the damaging effects of lead exposure on children's brain development was proven.

MMT is not approved for use in reformulated gasolines in the United States, is banned totally in the state of California, and is very little used by any other industrialized countries. Automobile manufacturers in North America complained that MMT damaged modern emissions diagnostics and pollution control equipment in cars, just as lead did.

Scientific evidence identifies inhaled air-borne manganese in acute doses as a neurotoxin, marked by symptoms like Parkinson's disease and premature aging of the brain. Workers suffering moderate exposure showed impaired hand-eye coordination, reaction time, and lung function. However, in 1994 Health Canada acknowledged significant data gaps when it recommended that further studies were needed to measure long-term, low-dose, chronic exposure effects on people, especially on those vulnerable groups such as the elderly, pregnant women, and children. A study by the Research Triangle Institute concluded that the risks of MMT exposure were acceptable. With the

scientific uncertainty about the health risks, the CEPA (Canadian Environmental Protection Agency) did not have the authority to ban the use of MMT directly.

The Canadian Minister of the Environment in 1995, Sheila Copps, (and later her successor, Sergio Marchi) introduced bills to ban the import and interprovincial trade of MMT in response to public concerns. On June 24, 1997, the MMT bill became law, and Canada banned the import or interprovincial transfer of the substance.

Anticipating this outcome, Ethyl Corporation sued the Canadian Government under NAFTA Chapter 11 on April 14, 1997, commencing the international proceedings before the Canadian Parliament had completed its legislative process. Ethyl sought US$200 million in compensation for losses resulting from "expropriation" of assets, and for loss of its good reputation. Specifically, it brought a claim under Article 1102 National Treatment, Article 1106 Performance requirements and Article 1110 Expropriation and Compensation.

In general, trade policy officials reject the use of trade tools as environmental policy instruments. They emphasize that domestic environmental protection goals should be achieved through normal environmental regulation, or the use of the new market tools (targeted taxation, tradable permits, etc.), not the manipulation of import/export policies. A healthy segregation of trade and environment is best, according to the trade community.

Canada defended itself by insisting the Act was part of a comprehensive air pollution control effort which fulfilled the governmental responsibility to public health protection, that the ban applied to everyone, and that there were no domestic manufacturers of MMT to be covertly protected. It grants no special privileges to Canadian goods or services. The government confiscated no property or investment, but only exercised normal sovereign regulatory powers.

A year later (24 June 1998) the three-person tribunal officially awarded itself (and NAFTA) jurisdiction over the case. Less than a month after that, the parties settled the case between themselves, prior to full substantive arbitration. The Canadian government agreed to pay US$13 million in compensation to Ethyl Corporation. In addition, on July 20, 1998, the Government of Canada announced that it lifted the ban on importation or interprovincial transfer of MMT. The government's statement that morning:

> **Current scientific information fails to demonstrate that MMT impairs the proper functioning of automobile on-board diagnostic systems. Furthermore, there is no new scientific evidence to modify the conclusions drawn by Health Canada in 1994 that MMT poses no health risk. (Ethyl Corporation Website)**

Although legally binding precedent does not exist in international law, this apparently comparable case cast a long shadow over the MTBE case in the minds of public activists. Reactions from non-governmental organizations (NGOs) were

immediate and extremely harsh, as this example from the Environmental Defense Fund indicates:

> **The rollback of the Canadian MMT ban is bad politics and bad public health policy. The Canadian government has gotten the critical issue backwards. The key point is not that there are scientific uncertainties about whether MMT is toxic, it's that there's not enough information to show that MMT is safe. Karen Florini, EDF**

The U.S. Department of State: *Legal Defense*

The Methanex claim came into the legal affairs office of the U.S. State Department, where Dan Lewis* and his team had the task of crafting the defense. He needed to neutralize Methanex' demand, yet at the same time preserve the general principles of investment protection and of environmental protection. Both the U.S. Environmental Protection Agency (USEPA) and the U.S. Trade Representative's (USTR's) office were already expressing specific concerns to him at the interagency meetings.

USTR reminded State of their abiding concern for maintaining a healthy NAFTA agreement, and of the history and concepts supporting the investor protection chapter. Its fundamental intent has always been to encourage good governance, that is, government which is neither arbitrary nor discriminatory against foreigners. The goal of the Chapter 11 language is to provide accountability for governmental actions, seeking even-handed decisions even in the face of typical political dynamics which all too often shift cost burdens to outsiders.

Environmental policy is not immune to expedient political responses to pressure from vested-interests. If environmental goals can be accomplished through one of several methods, the natural tendency of countries is to choose the way which would also benefit domestic industry over foreign competition. Multilateral, collective, agreed-upon oversight of local political vagaries can reinforce good domestic governance. It is very important to have a neutral venue where regulatory actions can be scrutinized for disguised protectionism. Otherwise clever specialized interests can successfully undermine the free trading system for their own private gain, costing domestic consumers and international investors unfairly.

Environmental officials' first major concern about the Chapter 11 cases, and the Methanex case in particular, is the challenge those cases make to the sovereign right to govern and regulate in the public interest. International law recognizes the permanent sovereign right of nations over their domestic natural resources and environment. If the government had to pay compensation every time an environmental regulation affected an industry, the potential crushing liability would paralyze public agencies. So far the public has not had to pay for the right to clean air, water, and soils. Private industry's right to make a profit has until now always been circumscribed by the collective need to

* All employee names are fictitious.

protect environmental quality. This public/private balance has never been easy, but the universally accepted Polluter Pays Principle clearly identifies who should pay the costs of environmental compliance.

In the United States, a convoluted and politically-charged controversy over "regulatory takings" spawned many new state laws which favor compensation to private property owners when environmental regulations significantly reduce the value of property. The property no longer has to be physically taken, nor full use of the property denied, as in classic expropriation situations. This potential liability has chilled many land-use environmental regulatory actions. USEPA worries that NAFTA Chapter 11 claims reflect an international version of the domestic controversy, which has already gone too far in the wrong direction. Of course, Chapter 11 goes far beyond physical property value.

Environmentalists both inside and outside USEPA have another serious complaint about this tribunal arbitration *process:* the lack of transparency and citizen access. The Investor-State Dispute Mechanism (ISDM), as it is legally called, is built upon the traditional commercial arbitration model, which values business confidentiality. Typically, all three tribunal members are lawyers familiar with trade policy and law, without environmental expertise whatsoever. They need not consult experts, allow observers, nor accept information from anyone not directly involved in the case. Release of any information in the case is voluntary, at the discretion of the parties and the principles of the case. One environmental thinktank criticized the process as "closed, secretive, non-transparent, and one-sided," which amounted to "a significant loss of democratic legitimacy."

Arbitration under Chapter 11 completely bypasses domestic courts, and thus tribunals operate in a legal atmosphere defined by NAFTA alone, without any constitutional safeguards; no standing roster of neutral judges; no appeals procedures; no defined due process; no public access or review; no body of case law with which decisions must be consistent. In international law, binding precedent based on previous case decisions does not exist as a legal construct.

Several other cases under NAFTA's Chapter 11 are proceeding towards arbitration, asking for both compensation and regulatory reversals. Like the MTBE case, they raise serious questions about how to balance important protections for investors and the environment alike. Any work on these claims also illuminates larger political and legal issues such as jurisdiction, sovereignty, standing, transparency, and democracy. The State Department team needed to integrate these trade and environmental values while at the same time presenting a solid defense against the Methanex lawsuit.

Dan Lewis personally sympathized with environmentalists' demands about process and participation. In a commitment to transparency, he made many finished documents available by email to anyone who asked for them. Precious few people asked.

The Tribunal:

This case has now gone into arbitration before the NAFTA tribunal selected specifically for the purpose. The United States Department of State, the defendant, bestowed their one choice upon Warren Christopher, a well-known statesman and lawyer, once the Secretary of State himself, and most recently a major player in sorting out the confusing U.S. Gore-Bush presidential election of 2000. Methanex, the claimant, selected William Rowley, an important Canadian corporate lawyer; and together they appointed V. Veeder, an English lawyer, as the third member of the tribunal, and its presiding arbitrator.

The tribunal is charged to decide this case under NAFTA's Chapter 11, using that agreement's specific language and general international law as their guide. Some legal opinions suggest that they may only consider the *effect* of the California measures upon the investor, rather that the *intent.* Any appeal to their decision is extremely limited. They have received the original claim from Methanex, the State Department's statement of defense against the claim, responses and counter-responses, and other documents.

In addition to these documents from the principles in the case, the tribunal has also been asked to accept an *amicus curiae* (friend of the court) brief from a Canadian thinktank called the International Institute for Sustainable Development (IISD), headquartered in Winnipeg. The brief would describe some legal and political options for modifying or interpreting NAFTA's Chapter 11 intentions and language. IISD had also asked for observer status, a role quite often granted by the United Nations and other international negotiators.

The tribunal in turn inquired of the NAFTA parties whether or not they should accept such input to the case from non-principles, to which both Canada and the United States responded affirmatively, but Mexico rejected.

Should the tribunal accept the IISD brief and grant them observer status?

How should the tribunal decide the case before them?

Relevant Websites:

International
NAFTA Free Trade Commission ; US, Canada, Mexico http://www.nafta-sec-alena.org/
Commission for Environmental Cooperation http://www.cec.org/

Government
U.S. State Department http://www.state.gov/
U.S. Environmental Protection Agency http://www.epa.gov/
U.S. Trade Representative http://www.ustr.gov/
California Governor's Office http://www.governor.ca.gov/
State Water Resources Control Board http://www.swrcb.ca.gov/
Cal/EPA (California Environmental Protection Agency) http://www.calepa.ca.gov/
California Air Resources Board http://www.arb.ca.gov/homepage.htm
Department of Health Services http://www.dhs.ca.gov/
Association of California Water Agencies http://www.acwanet.com/

Private Industry
Methanex http://www.methanex.com
Ethyl http://www.ethyl.com/
Archer Daniels Midland http://www.admworld.com/
Appleton and Associates: International Lawyers http://www.appletonlaw.com/
Oxygenated Fuels Association http://www.cleanfuels.net/
California MTBE Research Partnership http://www.ocwd.com/nwri/mtbe.htm
Western States Petroleum Association http://www.wspa.org/
American Corn Growers Association http://www.acga.org/
National Corn Growers Association http://www.ncga.com/
Renewable Fuels Association http://www.ethanolrfa.org/
U.S. Council for International Business http://www.uscib.org

NGOs
International Commercial Diplomacy Project http://commercialdiplomacy.org
International Institute for Sustainable Development http://www.iisd.org/
Friends of the Earth International http://www.foei.org/
Environmental Defense [Fund] http://www.edf.org/
National Wildlife Federation www.nwf.org/
Sierra Club (Canada) http://www.sierraclub.ca/
Greenpeace http://www.greenpeace.org/
Public Citizen http://www.citizen.org/
World Wide Fund for Nature http://www.wwfus.org/commerce

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- Claimant's Reply To The Statement Of Defense by Methanex
- Rejoinder of the Respondent of the United States of America, Sept 14, 2000
- Statement of Defence: Ethyl Corporation v. Gov't of Canada, Nov 27, 1997
- See also www.naftaclaims.com

Analytical Articles:

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Annex 1: (Selected) Text of NAFTA Chapter 11

North American Free Trade Agreement
PART FIVE: INVESTMENT, SERVICES AND RELATED MATTERS

Chapter Eleven: Investment

Section A - Investment
Article 1101: Scope and Coverage
Article 1102: National Treatment
Article 1103: Most-Favored-Nation Treatment
Article 1104: Standard of Treatment
Article 1105: Minimum Standard of Treatment
Article 1106: Performance Requirements
Article 1107: Senior Management and Boards of Directors
Article 1108: Reservations and Exceptions
Article 1109: Transfers
Article 1110: Expropriation and Compensation
Article 1111: Special Formalities and Information Requirements
Article 1112: Relation to Other Chapters
Article 1113: Denial of Benefits
Article 1114: Environmental Measures

(The following sections not included here due to space considerations, but are available at http://www.nafta-sec-alena.org/)

Section B - Settlement of Disputes between a Party and an Investor of Another Party
Article 1115: Purpose
Article 1116: Claim by an Investor of a Party on Its Own Behalf
Article 1117: Claim by an Investor of a Party on Behalf of an Enterprise
Article 1118: Settlement of a Claim through Consultation and Negotiation
Article 1119: Notice of Intent to Submit a Claim to Arbitration
Article 1120: Submission of a Claim to Arbitration
Article 1121: Conditions Precedent to Submission of a Claim to Arbitration
Article 1122: Consent to Arbitration
Article 1123: Number of Arbitrators and Method of Appointment
Article 1124: Constitution of a Tribunal When a Party Fails to Appoint an Arbitrator or the Disputing Parties are Unable to Agree on a Presiding Arbitrator
Article 1125: Agreement to Appointment of Arbitrators
Article 1126: Consolidation
Article 1127: Notice
Article 1128: Participation by a Party
Article 1129: Documents
Article 1130: Place of Arbitration
Article 1131: Governing Law
Article 1132: Interpretation of Annexes

Section A - Investment

Article 1101: Scope and Coverage

1. This Chapter applies to measures adopted or maintained by a Party relating to:
(a) investors of another Party;
(b) investments of investors of another Party in the territory of the Party; and
(c) with respect to Articles 1106 and 1114, all investments in the territory of the Party.

2. A Party has the right to perform exclusively the economic activities set out in Annex III and to refuse to permit the establishment of investment in such activities.

3. This Chapter does not apply to measures adopted or maintained by a Party to the extent that they are covered by Chapter Fourteen (Financial Services).

4. Nothing in this Chapter shall be construed to prevent a Party from providing a service or performing a function such as law enforcement, correctional services, income security or insurance, social security or insurance, social welfare, public education, public training, health, and child care, in a manner that is not inconsistent with this Chapter.

Article 1102: National Treatment

1. Each Party shall accord to investors of another Party treatment no less favorable than that it accords, in like circumstances, to its own investors with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments.

2. Each Party shall accord to investments of investors of another Party treatment no less favorable than that it accords, in like circumstances, to investments of its own investors with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments.

3. The treatment accorded by a Party under paragraphs 1 and 2 means, with respect to a state or province, treatment no less favorable than the most favorable treatment accorded, in like circumstances, by that state or province to investors, and to investments of investors, of the Party of which it forms a part.

4. For greater certainty, no Party may:
(a) impose on an investor of another Party a requirement that a minimum level of equity in an enterprise in the territory of the Party be held by its nationals, other than nominal qualifying shares for directors or incorporators of corporations; or
(b) require an investor of another Party, by reason of its nationality, to sell or otherwise dispose of an investment in the territory of the Party.

Article 1103: Most-Favored-Nation Treatment
1. Each Party shall accord to investors of another Party treatment no less favorable than that it accords, in like circumstances, to investors of any other Party or of a non-Party with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments.

2. Each Party shall accord to investments of investors of another Party treatment no less favorable than that it accords, in like circumstances, to investments of investors of any other Party or of a non-Party with respect to the establishment, acquisition, expansion, management, conduct, operation, and sale or other disposition of investments.

Article 1104: Standard of Treatment
Each Party shall accord to investors of another Party and to investments of investors of another Party the better of the treatment required by Articles 1102 and 1103.

Article 1105: Minimum Standard of Treatment
1. Each Party shall accord to investments of investors of another Party treatment in accordance with international law, including fair and equitable treatment and full protection and security.
2. Without prejudice to paragraph 1 and notwithstanding Article 1108(7)(b), each Party shall accord to investors of another Party, and to investments of investors of another Party, non-discriminatory treatment with respect to measures it adopts or maintains relating to losses suffered by investments in its territory owing to armed conflict or civil strife.
3. Paragraph 2 does not apply to existing measures relating to subsidies or grants that would be inconsistent with Article 1102 but for Article 1108(7)(b).

Article 1106: Performance Requirements
1. No Party may impose or enforce any of the following requirements, or enforce any commitment or undertaking, in connection with the establishment, acquisition, expansion, management, conduct or operation of an investment of an investor of a Party or of a non-Party in its territory:
(a) to export a given level or percentage of goods or services;

(b) to achieve a given level or percentage of domestic content;

(c) to purchase, use or accord a preference to goods produced or services provided in its territory, or to purchase goods or services from persons in its territory;

(d) to relate in any way the volume or value of imports to the volume or value of exports or to the amount of foreign exchange inflows associated with such investment;

(e) to restrict sales of goods or services in its territory that such investment produces or provides by relating such sales in any way to the volume or value of its exports or foreign exchange earnings;

(f) to transfer technology, a production process or other proprietary knowledge to a person in its territory, except when the requirement is imposed or the commitment or undertaking is enforced by a court, administrative tribunal or competition authority to remedy an alleged violation of competition laws or to act in a manner not inconsistent with other provisions of this Agreement; or

(g) to act as the exclusive supplier of the goods it produces or services it provides to a specific region or world market.

2. A measure that requires an investment to use a technology to meet generally applicable health, safety or environmental requirements shall not be construed to be inconsistent with paragraph 1(f). For greater certainty, Articles 1102 and 1103 apply to the measure.

3. No Party may condition the receipt or continued receipt of an advantage, in connection with an investment in its territory of an investor of a Party or of a non-Party, on compliance with any of the following requirements:

(a) to achieve a given level or percentage of domestic content;

(b) to purchase, use or accord a preference to goods produced in its territory, or to purchase goods from producers in its territory;

(c) to relate in any way the volume or value of imports to the volume or value of exports or to the amount of foreign exchange inflows associated with such investment; or

(d) to restrict sales of goods or services in its territory that such investment produces or provides by relating such sales in any way to the volume or value of its exports or foreign exchange earnings.

4. Nothing in paragraph 3 shall be construed to prevent a Party from conditioning the receipt or continued receipt of an advantage, in connection with an investment in its territory of an investor of a Party or of a non-Party, on compliance with a requirement to locate production, provide a service, train or employ workers, construct or expand particular facilities, or carry out research and development, in its territory.

5. Paragraphs 1 and 3 do not apply to any requirement other than the requirements set out in those paragraphs.

6. Provided that such measures are not applied in an arbitrary or unjustifiable manner, or do not constitute a disguised restriction on international trade or investment, nothing

in paragraph 1(b) or (c) or 3(a) or (b) shall be construed to prevent any Party from adopting or maintaining measures, including environmental measures:

(a) necessary to secure compliance with laws and regulations that are not inconsistent with the provisions of this Agreement;

(b) necessary to protect human, animal or plant life or health; or

(c) necessary for the conservation of living or non-living exhaustible natural resources.

Article 1107: Senior Management and Boards of Directors

1. No Party may require that an enterprise of that Party that is an investment of an investor of another Party appoint to senior management positions individuals of any particular nationality.

2. A Party may require that a majority of the board of directors, or any committee thereof, of an enterprise of that Party that is an investment of an investor of another Party, be of a particular nationality, or resident in the territory of the Party, provided that the requirement does not materially impair the ability of the investor to exercise control over its investment.

Article 1108: Reservations and Exceptions

1. Articles 1102, 1103, 1106 and 1107 do not apply to:

(a) any existing non-conforming measure that is maintained by

(i) a Party at the federal level, as set out in its Schedule to Annex I or III,

(ii) a state or province, for two years after the date of entry into force of this Agreement, and thereafter as set out by a Party in its Schedule to Annex I in accordance with paragraph 2, or

(iii) a local government;

(b) the continuation or prompt renewal of any non-conforming measure referred to in subparagraph (a);

or

(c) an amendment to any non-conforming measure referred to in subparagraph (a) to the extent that the amendment does not decrease the conformity of the measure, as it existed immediately before the amendment, with Articles 1102, 1103, 1106 and 1107.

2. Each Party may set out in its Schedule to Annex I, within two years of the date of entry into force of this Agreement, any existing nonconforming measure maintained by a state or province, not including a local government.

3. Articles 1102, 1103, 1106 and 1107 do not apply to any measure that a Party adopts or maintains with respect to sectors, subsectors or activities, as set out in its Schedule to Annex II.

4. No Party may, under any measure adopted after the date of entry into force of this Agreement and covered by its Schedule to Annex II, require an investor of another Party, by reason of its nationality, to sell or otherwise dispose of an investment existing at the time the measure becomes effective.

5. Articles 1102 and 1103 do not apply to any measure that is an exception to, or derogation from, the obligations under Article 1703 (Intellectual Property National Treatment) as specifically provided for in that Article.

6. Article 1103 does not apply to treatment accorded by a Party pursuant to agreements, or with respect to sectors, set out in its Schedule to Annex IV.

7. Articles 1102, 1103 and 1107 do not apply to:
(a) procurement by a Party or a state enterprise; or
(b) subsidies or grants provided by a Party or a state enterprise, including government supported loans, guarantees and insurance.

8. The provisions of:
(a) Article 1106(1)(a), (b) and (c), and (3)(a) and (b) do not apply to qualification requirements for goods or services with respect to export promotion and foreign aid programs;
(b) Article 1106(1)(b), (c), (f) and (g), and (3)(a) and (b) do not apply to procurement by a Party or a state enterprise; and
(c) Article 1106(3)(a) and (b) do not apply to requirements imposed by an importing Party relating to the content of goods necessary to qualify for preferential tariffs or preferential quotas.

Article 1109: Transfers
1. Each Party shall permit all transfers relating to an investment of an investor of another Party in the territory of the Party to be made freely and without delay. Such transfers include:
(a) profits, dividends, interest, capital gains, royalty payments, management fees, technical assistance and other fees, returns in kind and other amounts derived from the investment;
(b) proceeds from the sale of all or any part of the investment or from the partial or complete liquidation of the investment;
(c) payments made under a contract entered into by the investor, or its investment, including payments made pursuant to a loan agreement;
(d) payments made pursuant to Article 1110; and
(e) payments arising under Section B.

2. Each Party shall permit transfers to be made in a freely usable currency at the market rate of exchange prevailing on the date of transfer with respect to spot transactions in the currency to be transferred.

3. No Party may require its investors to transfer, or penalize its investors that fail to transfer, the income, earnings, profits or other amounts derived from, or attributable to, investments in the territory of another Party.

4. Notwithstanding paragraphs 1 and 2, a Party may prevent a transfer through the equitable, non-discriminatory and good faith application of its laws relating to:
(a) bankruptcy, insolvency or the protection of the rights of creditors;
(b) issuing, trading or dealing in securities;
(c) criminal or penal offenses;
(d) reports of transfers of currency or other monetary instruments; or
(e) ensuring the satisfaction of judgments in adjudicatory proceedings.

5. Paragraph 3 shall not be construed to prevent a Party from imposing any measure through the equitable, non-discriminatory and good faith application of its laws relating to the matters set out in subparagraphs (a)through (e) of paragraph 4.

6. Notwithstanding paragraph 1, a Party may restrict transfers of returns in kind in circumstances where it could otherwise restrict such transfers under this Agreement, including as set out in paragraph 4.

Article 1110: Expropriation and Compensation

1. No Party may directly or indirectly nationalize or expropriate an investment of an investor of another Party in its territory or take a measure tantamount to nationalization or expropriation of such an investment ("expropriation"), except:
(a) for a public purpose;
(b) on a non-discriminatory basis;
(c) in accordance with due process of law and Article 1105(1); and
(d) on payment of compensation in accordance with paragraphs 2 through 6.

2. Compensation shall be equivalent to the fair market value of the expropriated investment immediately before the expropriation took place ("date of expropriation"), and shall not reflect any change in value occurring because the intended expropriation had become known earlier. Valuation criteria shall include going concern value, asset value including declared tax value of tangible property, and other criteria, as appropriate, to determine fair market value.

3. Compensation shall be paid without delay and be fully realizable.

4. If payment is made in a G7 currency, compensation shall include interest at a commercially reasonable rate for that currency from the date of expropriation until the date of actual payment.

5. If a Party elects to pay in a currency other than a G7 currency, the amount paid on the date of payment, if converted into a G7 currency at the market rate of exchange prevailing on that date, shall be no less than if the amount of compensation owed on the date of expropriation had been converted into that G7 currency at the market rate of exchange prevailing on that date, and interest had accrued at a commercially reasonable rate for that G7 currency from the date of expropriation until the date of payment.

6. On payment, compensation shall be freely transferable as provided in Article 1109.

7. This Article does not apply to the issuance of compulsory licenses granted in relation to intellectual property rights, or to the revocation, limitation or creation of intellectual property rights, to the extent that such issuance, revocation, limitation or creation is consistent with Chapter Seventeen (Intellectual Property).

8. For purposes of this Article and for greater certainty, a non-discriminatory measure of general application shall not be considered a measure tantamount to an expropriation of a debt security or loan covered by this Chapter solely on the ground that the measure imposes costs on the debtor that cause it to default on the debt.

Article 1111: Special Formalities and Information Requirements

1. Nothing in Article 1102 shall be construed to prevent a Party from adopting or maintaining a measure that prescribes special formalities in connection with the establishment of investments by investors of another Party, such as a requirement that investors be residents of the Party or that investments be legally constituted under the laws or regulations of the Party, provided that such formalities do not materially impair the protections afforded by a Party to investors of another Party and investments of investors of another Party pursuant to this Chapter.

2. Notwithstanding Articles 1102 or 1103, a Party may require an investor of another Party, or its investment in its territory, to provide routine information concerning that investment solely for informational or statistical purposes. The Party shall protect such business information that is confidential from any disclosure that would prejudice the competitive position of the investor or the investment. Nothing in this paragraph shall be construed to prevent a Party from otherwise obtaining or disclosing information in connection with the equitable and good faith application of its law.

Article 1112: Relation to Other Chapters

1. In the event of any inconsistency between this Chapter and another Chapter, the other Chapter shall prevail to the extent of the inconsistency.

2. A requirement by a Party that a service provider of another Party post a bond or other form of financial security as a condition of providing a service into its territory does not of itself make this Chapter applicable to the provision of that crossborder service. This Chapter applies to that Party's treatment of the posted bond or financial security.

Article 1113: Denial of Benefits

1. A Party may deny the benefits of this Chapter to an investor of another Party that is an enterprise of such Party and to investments of such investor if investors of a non-Party own or control the enterprise and the denying Party:

(a) does not maintain diplomatic relations with the non-Party; or

(b) adopts or maintains measures with respect to the non-Party that prohibit transactions with the enterprise or that would be violated or circumvented if the benefits of this Chapter were accorded to the enterprise or to its investments.

2. Subject to prior notification and consultation in accordance with Articles 1803 (Notification and Provision of Information) and 2006 (Consultations), a Party may deny the benefits of this Chapter to an investor of another Party that is an enterprise of such Party and to investments of such investors if investors of a non-Party own or control the enterprise and the enterprise has no substantial business activities in the territory of the Party under whose law it is constituted or organized.

Article 1114: Environmental Measures

1. Nothing in this Chapter shall be construed to prevent a Party from adopting, maintaining or enforcing any measure otherwise consistent with this Chapter that it considers appropriate to ensure that investment activity in its territory is undertaken in a manner sensitive to environmental concerns.

2. The Parties recognize that it is inappropriate to encourage investment by relaxing domestic health, safety or environmental measures. Accordingly, a Party should not waive or otherwise derogate from, or offer to waive or otherwise derogate from, such measures as an encouragement for the establishment, acquisition, expansion or retention in its territory of an investment of an investor. If a Party considers that another Party has offered such an encouragement, it may request consultations with the other Party and the two Parties shall consult with a view to avoiding any such encouragement.