

**SPECIFIC AGREEMENT ON VOLUNTARY
GREENHOUSE GAS REDUCTIONS IN QUÉBEC**

BETWEEN

**MINISTER OF STATE FOR MUNICIPAL AFFAIRS AND GREATER
MONTREAL, THE ENVIRONMENT AND WATER AND MINISTER OF
ENVIRONMENT, MR ANDRÉ BOISCLAIR, FOR AND ON BEHALF OF THE
GOVERNMENT OF QUEBEC,**

hereinafter called "the Minister"

AND

**Alcoa Inc. a corporate body legally constituted in Pennsylvania, with
headquarters at 201 Isabelle Ave, Pittsburgh, PA 15212-5858, USA,
represented by Mr Jean-Pierre Gilardeau, in his function as President of
the division "Groupe-Nord-Est, Alcoa Première fusion", duly authorized as
he so declares,**

hereinafter called "the Entity"

Official document in French

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WHEREAS an agreement entitled "**Framework agreement** on voluntary greenhouse gas reductions in Québec", attached to this agreement as an appendix, was concluded between the government of Québec and the Aluminium Association of Canada (AAC) on January 31, 2002, hereinafter referred to as the "Framework agreement";

WHEREAS the framework agreement shall be implemented with the signature of the specific agreements on voluntary greenhouse gas reductions in Québec;

WHEREAS Alcoa Inc. undertakes to implement the framework agreement by signing this present specific agreement on voluntary greenhouse gas reductions;

WHEREAS the framework agreement defines the essential content of the specific agreements;

THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. INTERPRETATION

The parties aim to implement the framework agreement. To this end, the parties agree:

that the entirety of whereas clauses and articles of the framework agreement, entered into on January 31, 2002 with the Aluminium Association of Canada, as well as the appendices, constitute integral parts of this specific agreement;

that in the case of conflicting provisions, the provisions of the framework agreement override those of this present agreement;

that this present specific agreement is fundamentally carried out on a contractual basis and does not exempt the Entity from adhering to the Environment Quality Act, hereinafter referred to as the "Law", to its regulations, in particular, from obtaining and adhering to authorization and clean-up certificates prescribed by the Law, just as it does not entitle the Entity to sanctions due to this Law and its regulations, or to any other law by any party hereto;

that, should a provision of the specific agreement be incompatible with a provision of the Law and its regulations, or any other law, the latter provision shall have precedence over the one in the specific agreement.

2. PRINCIPLES OF APPLICATION

The parties agree:

that the emission targets shall be determined annually or multi-annually; that the reference years shall be determined according to the definition set forth in Appendix B of the framework agreement; that, at the expiration of the specific agreement, the Minister shall officially inform the Entity of the GHG emissions and reductions that were calculated at the concluding stages of the specific agreement, in addition to providing an overview of all the transactions, mechanisms and measures employed in order to keep in compliance with the contract; that the terms of this specific agreement shall be publicized jointly; to resort to the best data available when determining the actual emissions and for

setting the GHG emission targets according to the inventory methodology foreseen in the framework agreement;

to collaborate and to actively participate, when necessary, in identifying and obtaining information that is the most pertinent for determining the actual emissions and for setting the GHG emission target; that the GHG emissions and emission reductions shall be derived from data or aspects that best represent the different facilities of the Entity, and that, at the expiration of the specific agreement, the Entity will have at its disposal the GHG emission factors that are specific for each of their facilities (for example, perfluorocarbons (PFCs) emanating from electrolytic processes and, when applicable, methane (CH₄), emitted through the Soderberg process); that the GHG emission and emission reduction targets agreed upon in this specific agreement shall be regarded as strictly voluntary, excluding them thus from being viewed as criteria, norms, environmental emission objectives and quota of legal nature; that the implementation of this present agreement shall be carried out in a spirit of intra- and intersectorial equity and fairness, taking into account the particular circumstances of each entity and each industrial sectors.

3. FIELD OF IMPLEMENTATION

The parties agree that this specific agreement applies to the facilities listed below, under reserved of the intervention of the owners or operators of these facilities:

- a) Aluminerie de Baie-Comeau, owned by a wholly-owned subsidiary of Alcoa Inc.;
- b) Aluminerie de Bécancour, held in undivided co-ownership by subsidiaries of Alcoa Inc.; and Péchiney, such a smelter is operated by Aluminerie de Bécancour Inc.;
- c) Aluminerie de Deschambault, owned by a wholly-owned subsidiary of Alcoa Inc.;
- d) Usine de tiges de Bécancour, owned by a wholly-owned subsidiary of Alcoa Inc.;

To the end of this present article, the above-mentioned facilities are covered within their authorized production capacity permitted by any authorization certificates or other permits issued by Law.

4. AGREEMENT BETWEEN THE PARTIES ON CERTAIN VARIABLES FOR THE APPLICATION OF THE FRAMEWORK AGREEMENT

The parties agree:

that the base year chosen by the Entity starts on January 1, 2001 and ends on December 31, 2001. The non-audited emissions for that period were determined to be 2,833,791 tons;

that the Entity shall establish the emission targets in absolute values, i.e. a total quantity of CO₂-equivalent emissions for actually produced aluminium;

that the first target period for voluntary GHG reductions shall last from January 1, 2001 through December 31, 2004;

that the first emission target shall be 2,680,000 tons of CO₂-equivalent per year for the first target period of voluntary GHG reductions, whereby the indirect emissions (Appendix 1), as well as emissions arising out of the participation of a subsidiary of Alcoa Inc. with the Compagnie hydro-électrique Manicouagan (Appendix 2), will be calculated separately and will not be included in this target;

that the independent expert who shall audit the data of the base year (2001) of the voluntary GHG reductions, shall be determined within the first three months after the specific agreement has been signed;

that the reconciliation of commitments shall be made on December 31, 2007.

5. COMMITMENTS OF THE PARTIES IN THE NEGOTIATION AND IMPLEMENTATION OF THE SPECIFIC AGREEMENT

5.1. Emission Data and Other Information

5.1.1. Determination of Information

The parties agree to negotiate on the content of information to be transmitted throughout the duration of the specific agreement. The information shall be prepared by the Entity and shall also be compiled in itemized versions for the facilities.

The parties agree that the inventory of emissions shall be realized in conformity with the methodology mentioned in the framework agreement, and that PFC emission measures shall be taken in each facility of primary aluminium production mentioned in article 3, at least once during the period of the agreement. Measurements for CH₄ emissions will also be taken in the potrooms of these facilities, if it is technically possible that the technical process used the facility emits this contaminant.

5.1.2. Verification

The parties agree that an audit of the results of the specific agreement shall be effected at the end of each target period chosen by the Entity.

The parties commit to agree upon an audit protocol of the GHG emission data.

The parties agree to appoint, within the six months before each end of a target period, an independent expert who shall effect the audit of the reported and related data.

The parties agree that past GHG emission data, audited by an independent expert for the year 2001 of the first target period, shall be issued within 12 months after the signature of the specific agreement.

The parties agree that the Entity shall provide the chosen independent expert with necessary information for auditing the realization of the fixed target; the relevant information shall be, among other things, itemized for each of the facilities.

5.1.3. Transmission

The Entity agrees that the unverified information to be transmitted and all other pertinent information for the implementation of the specific agreement will be transmitted to the Minister within four months following the end of each calendar year.

The Entity agrees to send in verified information to the Minister no later than six months after the end of each target period.

5.1.4. Validation

The Minister agrees to begin the process of validating the verified information produced by the Entity within two months following its receipt.

The Minister agrees to recognize the validity or invalidity of verified information produced by the Entity within six months following its receipt.

5.1.5. Data Entry

The Minister agrees to enter the validated data in an appropriate record. In the case of indirect reductions or reductions related to life cycle activities listed in Appendix 1, the data will be entered separately.

5.1.6. Publication

The parties agree to collaborate closely and diligently to carry out the publication of the results of the specific agreement. The publication may be done individually or jointly, as the parties choose.

5.2. Emission Targets

5.2.1. Emission Target Proposal

The Entity agrees to propose GHG emission targets for a future target period to the Minister, as well as the length of this target period, no later than three months before the end of the current target period.

Before the same deadline mentioned above, the Minister may submit GHG emission targets or emission reductions to be reached by the Entity, for negotiation purposes. These targets must be considered to be reached on a voluntary basis and are not considered to be criteria, standards, emission objectives and legal quotas.

5.2.2. Setting Emission Targets

The parties agree that when an emission target is a multi-year target, it must be reached on average during the target period concerned.

The parties agree to begin diligently setting GHG emission targets during the present specific agreement.

The parties agree to set the emission target for each future target period by taking into account the specific emissions and specific situations of each of the Entity's facilities, as well as any other significant parameter.

The Minister agrees to begin negotiating target emissions with the Entity no later than two months after receiving the Entity's proposal.

The parties agree that all emission targets set for target periods following the first target period must be set no later than the end of the first quarter of the new target period, otherwise the target for the previous target period will be automatically assigned.

5.2.3. Review of Emission Targets

The parties agree to diligently review any target or other parameter having been agreed upon, should exceptional circumstances so require.

5.2.4. Establishment of Adjustments

The parties agree that target adjustments, following a modification of production capacity or a different utilization of this production capacity, will be made at the end of the year during which modifications occur, in accordance with the terms and conditions of the framework agreement.

5.2.5. Emission Reduction Transfers

The Minister agrees to diligently certify and register the results of emission reduction transfers. Transfers must meet the rules established by the Minister under article 5 of the framework agreement.

6. SPECIFIC COMMITMENTS OF THE ENTITY

6.1. GHG Reduction

The Entity agrees that the present specific agreement shall be part of an overall commitment to reduce GHG emissions for all the facilities mentioned in article 3 of the present specific agreement, between the base year determined in article 4 and the expiration of the specific agreement.

Under conditions of continuous supply in electricity, the Entity agrees that the performance of GHG emissions per production unit that is reached in a specific facility of the Entity during the base year will at least be maintained for the entire duration of the specific agreement, by taking into consideration normal variability of emissions, start-up of the pots and major operational changes.

6.2. Information Reported

The Entity agrees to assure the Minister that data reported will reflect reality and that they will be inventoried in conformity with the principles and methodologies provided in the framework agreement and in the present specific agreement.

The Entity agrees that these data will be entered and reported in the format agreed upon under article 7.2. Data will be forwarded to the Minister electronically and on paper.

The Entity agrees that data reported will be consistent with those submitted to the different levels of government, or to government and paragonovernmental organizations.

The Entity agrees to provide the Minister, inasmuch as it is possible, with all the necessary information to ensure proper management of the present specific agreement.

6.3. Management of the Agreement

The Entity agrees to devote all necessary resources to ensure proper management of the specific agreement.

The Entity agrees to meet expenses related to the verification of information required when submitting reports to the Minister.

6.4. Promotion of Best Practices

The Entity agrees to develop, implement and periodically update appropriate protocols and guidelines in order to reduce its GHG emissions. The Entity will strive to involve operation personnel directly in its efforts to reduce GHG emissions.

The Entity agrees to maintain, between each of the facilities listed in article 3 of the present specific agreement, a climate that is conducive to the exchange of information on methods and technologies that contribute to optimizing operations while minimizing GHG emissions, so as to ensure the preservation of the environment and climate, as well as sustainable development.

The Entity agrees that in addition to meeting the targets set out in the present specific agreement, it will seek to raise awareness among suppliers and the local community to promote GHG emission reductions, and will inform the Minister of efforts expended in this matter.

7. SPECIFIC COMMITMENTS OF THE MINISTER

7.1. Context of Target Definition

The Minister agrees that emission targets are established by taking into account the Entity's history of emissions, previous reductions, as well as any special context surrounding its facilities.

7.2. Management of the Agreement

The Minister agrees to devote available resources to the proper management of the specific agreement.

The Minister agrees to provide the Entity, within four months following the signature of this agreement, with an electronic data-collection document to be forwarded in the context of this specific agreement.

7.3. Collaboration

The Minister agrees to collaborate with the Entity in the promotion of projects related to the reduction of GHG emissions, the efficient use of energy and to the raising of awareness of the importance of reducing GHG emissions.

7.4. Additional Recognition

The Minister agrees to acknowledge entities who distinguish themselves by the excellence of their results. To this effect, the Entity may submit to the Minister's appreciation any file concerning the management of GHG informing of results obtained and efforts expended in the following areas:

- a) reaching, maintaining or improving a level of excellence in the management of GHG in a specific facility;
- b) implementing a level of excellence in the management of GHG in all or several of the Entity's facilities, with respect to:

- fundamental or applied research;
 - the application or transfer of technology;
 - the promotion or sharing of exemplary practices between the Entity's facilities or between entities;
 - the involvement of employees at every level;
- c) the involvement of the Entity or one of its facilities in the community;
- d) any other direct or indirect activity related to the management of GHG emissions.

8. TERM

This specific agreement will take effect on the date it is signed and will expire on December 31, 2007, unless one of the parties terminates it by giving the other party a one-year written advance notice to this effect. This agreement is not subject to automatic renewal.

The parties agree that the expiration or termination of the Framework Agreement shall entail the automatic termination of related specific agreements entered into with the entities. The parties also agree that the application of any regulatory standard related to any subject covered by this specific agreement shall also automatically terminate said specific agreement, without any compensation or delay.

9. REPRESENTATIVES OF THE PARTIES

Both parties agree to designate a single person with the required authority to ensure follow-up of the agreement.

The Minister appoints the following person as representative in this specific agreement:

The Director of the Direction des changements climatiques
 Édifice Marie-Guyart, 9^{ième} étage
 675 boulevard René-Lévesque Est, bte 30
 Québec City (Québec) G1R 5V7
 Tel. : (418) 521-3813, extension 4980

The person designated above shall implement a technical committee to ensure the analysis and follow-up of the present agreement, which will include a representative of the Ministère des Ressources naturelles and a representative of the Ministère de l'Industrie et du Commerce.

The Entity appoints the following person as representative in this specific agreement:

The Director for the Environment
 Alcoa, première fusion, Groupe Nord-est
 6505, Transcanadienne
 Bureau 300
 Saint-Laurent (Québec)
 H4T 1S3
 Tel. : (514) 904-5030

10. SIGNATURES

The parties acknowledge they have read and agreed to each and every clause of this agreement.

In witness thereof, the parties have duly signed this agreement as follows:

In _____ on the _____ day of June 2002

MINISTER OF STATE FOR MUNICIPAL AFFAIRS AND GREATER MONTRÉAL, THE ENVIRONMENT AND WATER AND MINISTER OF ENVIRONMENT

ANDRÉ BOISCLAIR

ALCOA INC.

JEAN-PIERRE GILARDEAU
PRESIDENT, ALCOA PREMIÈRE FUSION, GROUPE NORD-EST

11. INTERVENTION OF ALUMINERIE DE BÉCANCOUR INC.

Aluminerie de Bécancour Inc., a corporate body legally constituted, with headquarters at 5555, rue Pierre-Thibault, Bécancour, represented by Mr Louis-Régis Tremblay, in his function as President and Executive Director of Aluminerie de Bécancour Inc., duly authorized as he so declares, hereinafter referred to as "ABI".

ABI becomes party to the present agreement to accept that its primary aluminium plant in Bécancour shall be among the facilities covered by article 3 of the present agreement and accepts each and every term and condition of this agreement. Without limiting the generality of the foregoing, it is specifically understood that the emissions of ABI will be included and calculated, and will be an integral part of emission targets specified or to be specified in this agreement;

Aluminerie de Bécancour Inc.

LOUIS-RÉGIS TREMBLAY, PRESIDENT AND EXECUTIVE DIRECTOR OF ALUMINERIE DE BÉCANCOUR INC.

12. INTERVENTION OF COMPAGNIE DE GESTION ALCOA-LAURALCO ON BEHALF OF ALCOA-ALUMINERIE DE DESCHAMBAULT S.E.N.C.

Compagnie de Gestion Alcoa-Lauralco on behalf of Alcoa-Aluminerie de Deschambault S.E.N.C., a corporate body legally constituted, with headquarters at 1, boul. des Sources, Deschambault, represented by Mr Jean-Pierre Gilardeau, in his function as President, duly authorized as he so declares, hereinafter referred to as Compagnie de Gestion.

Compagnie de Gestion becomes party to the present agreement to accept that its primary aluminium plant in Deschambault shall be among the facilities covered by article 3 of the present agreement and accepts each and every term and condition of this agreement. Without limiting the generality of the foregoing, it is specifically understood that the emissions of Compagnie de Gestion will be included and calculated, and will be an integral part of emission targets specified or to be specified in this agreement;

Compagnie de Gestion Alcoa-Lauralco on behalf of Alcoa-Aluminerie de Deschambault S.E.N.C.

JEAN-PIERRE GILARDEAU, PRESIDENT, COMPAGNIE DE GESTION ALCOA-LAURALCO ON BEHALF OF ALCOA-ALUMINERIE DE DESCHAMBAULT S.E.N.C.

13. INTERVENTION OF ALCOA LTÉE

Alcoa Ltée, a corporate body legally constituted, with headquarters at 100 Route Maritime, Baie Comeau, represented by Mr Jean-Pierre Gilardeau, in his function as President, Groupe Nord-Est, Alcoa Première fusion, duly authorized as he so declares.

Alcoa Ltée becomes party to the present agreement to accept that its primary aluminium plant in Baie-Comeau and rod production facility in Bécancour shall be among the facilities covered by article 3 of the present agreement and accepts each and every term and condition of this agreement. Without limiting the generality of the foregoing, it is specifically understood that the emissions of Alcoa Ltée will be included and calculated, and will be an integral part of emission targets specified or to be specified in this agreement;

Alcoa Ltée

JEAN-PIERRE GILARDEAU
PRESIDENT, ALCOA PREMIÈRE FUSION, GROUPE NORD-EST

APPENDIX 1**INDIRECT ACTIVITIES AND LIFE CYCLE ACTIVITIES****List of indirect activities included in the Specific Agreement**

Electric energy consumption
Fuel consumption
Shipping of products

List of life cycle activities included in the Specific Agreement

Nil

APPENDIX 2**GREENHOUSE GAS EMISSIONS ASSOCIATED WITH ELECTRIC ENERGY PRODUCTION**

A Québec subsidiary of Alcoa Inc. owns a 40% share in Compagnie électrique Manicouagan, which runs the McCormick power plant on the Manicouagan River. Current average annual production is 2,860 GWh.

The McCormick power plant is an uncontrolled stream plant, which has no reservoir. The production of GHG directly associated with this power plant is therefore negligible. However, it benefits from the reservoirs of the Manic 5, Manic 3 and Manic 2 dams located upstream on the same river.

It is not necessary to fix a GHG emission target for this power plant.