



MUTUAL RECOGNITION OF

REGISTERED/LICENSED ENGINEERS

BY

ENGINEERS CANADA

AND

THE STATE OF TEXAS, UNITED STATES OF AMERICA

TO FACILITATE PROFESSIONAL ENGINEERING

MOBILITY

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1 PARTICIPANTS

- 1.1 The Texas Board of Professional Engineers is authorized and required to license those individuals who are qualified by law to practice engineering, and to regulate the practice of engineering in Texas. To accomplish this mission, the Legislature further empowered the Board to make and enforce the rules dealing with licensing, compliance and enforcement, and standards of conduct and ethics.
- 1.2 Engineers Canada is the national organization of the Canadian engineering regulators. The individual Canadian engineering regulators are autonomous and are responsible for registration/licensure of engineers in their province or territory. Engineers Canada has no authority, implied or otherwise, over the Canadian engineering regulators. Each province or territory legislatively requires that engineers obtain registration/licensure where they intend to practice engineering.

2 PURPOSE

- 2.1 This Agreement is intended to permit the mutual recognition of Registered/Licensed Engineers from a Home Jurisdiction in the Host Jurisdiction.
- 2.2 This Agreement covers Registered/Licensed Engineers. It is intended that there be no discrimination based on place of origin or place of education.
- 2.3 This Agreement is intended for Temporary Registration/Licensure.
- 2.4 Provisions under this Agreement apply to professional engineers licensed in the state of Texas or Members of a Reciprocating Jurisdiction. Nothing in this Agreement shall apply to an individuals' practice or malpractice disputes.

3 DEFINITIONS

"Accredited Engineering Degree" means a university engineering education program accredited by EAC/ABET or by the Engineers Canada Accreditation Board. Both EAC/ABET and the Engineers Canada Accreditation Board maintain Washington Accord accreditation standards.

"Canadian engineering regulators" means the provincial and territorial licensing bodies enacted by statute to regulate the practice of engineering within Canada.

"Board" means the Texas Board of Professional Engineers.

"Home Jurisdiction" means the designated Jurisdiction in which an engineer is licensed.

"Host Jurisdiction" means the Jurisdiction to which an engineer applies for reciprocal recognition under the terms of this Agreement.

"Implementation Schedule" means a list of jurisdictions that have implemented the Agreement.

"Jurisdiction" means (i) the Texas Board of Professional Engineers on behalf of the state of Texas and (ii) the Canadian provincial or territorial authority responsible for Registration/Licensure, as applicable.

"Practice of Engineering" is as defined in each Jurisdiction for that Jurisdiction.

"Licensing" means the process by which a person obtains the legal right to practice engineering and use the title 'Professional Engineer', 'P.E.', in Texas or who obtains the legal right to practice engineering and to use the titles 'Professional Engineer', 'P.Eng.', and/or 'Ingenieur' 'ing.' in Canada.

"Reciprocating Jurisdiction" means a Canadian Association/Ordre that has agreed to become a Reciprocating Jurisdiction pursuant to the terms of this Agreement.

"Record of Engineering Experience" means a written summary documenting the engineering experience of the applicant.

"Registered/Licensed Engineer" means an engineer who has been granted Licensure by the Texas Board of Professional Engineers or who has been granted Registration/Licensure by any Reciprocating Jurisdiction and has been admitted according to assessments carried out by the Home Jurisdiction, but does not include applicants granted Licensure through a third party mutual recognition agreement.

"Substantially Equivalent Academic Formation" means an academic background which is not an Accredited Engineering Program, but which has been recognized as substantially equivalent by Engineers Canada or a Reciprocating Jurisdiction

"Temporary Registration/License" means a license to practice engineering in the host jurisdiction in which it was issued for a specified and limited time period or for the duration of a specific project.

"Verification" means reviewed and signed by a Licensed or Registered engineer.

"Washington Accord" means an agreement between engineering accreditation bodies that:

- recognizes the substantial equivalency of accreditation systems of signatory organizations and the engineering education programs accredited by them; and
- establishes that graduates of programs accredited by the accreditation organizations of each member nation are prepared to practice engineering at the entry level.

4 MUTUAL RECOGNITION PROVISIONS - ELIGIBILITY FOR REGISTRATION/LICENSURE IN THE HOST JURISDICTION

- 4.1 Current Registration/Licensure Practices
- 4.1.1 In registering/licensing a Professional Engineer, the Texas Board of Professional Engineers generally requires the following elements:
 - (a) A degree from an Accredited Engineering Program or equivalent;
 - (b) A minimum of four or eight years of acceptable engineering experience depending on education;
 - (c) A passing score on the Texas Professional Conduct and Ethics examination;
 - (d) Verification of suitable character and engineering competence through reference statements from licensed Professional Engineers;
 - (e) A passing score on the Fundamentals of Engineering examination as described under the Board's rules;
 - (f) A passing score on the Principles and Practice of Engineering examination as described under the Board's rules.
- 4.1.2 In registering/licensing a Professional Engineer, the Canadian Engineering regulators generally require the following elements:
 - (a) A degree from an Accredited Engineering Program or a Substantially Equivalent Academic Formation;
 - (b) A minimum of four years acceptable engineering experience of which one year must be obtained in a Canadian environment or equivalent;
 - (c) A satisfactory level of English or French language competency as required by the jurisdiction, in speaking and in writing;
 - (d) Successful completion of a professional practice examination as required by the jurisdiction; and
 - (e) Demonstration of good character, through self-declaration plus peer recommendation.

In addition, some Canadian engineering regulators have, or are considering, implementation of additional competency based criteria for practice in certain areas.

- 4.2 Applicants must, in addition to demonstrating that they are a Registered/Licensed Engineer currently in good standing in the Home Jurisdiction, fulfill the following in order to qualify for Registration/Licensure pursuant to this Agreement:
 - (a) Pass any examination or interview whose sole purpose is to ensure that the applicant understands local practices, legislation, codes, professional standards or other issues that are not related to the technical competence of the applicant to engage in the Practice of Engineering.
 - (b) Demonstration of experience:

- (1) One year of U.S. or U.S. equivalent experience to show familiarity with U.S. codes and engineering practice to enable Licensure in Texas.
- (2) One year of Canadian or Canadian equivalent experience to enable Registration/Licensure in a Reciprocating Jurisdiction.
- (c) Experience Requirement: Provide a verified record of engineering experience demonstrating seven years of practical experience since graduation, including three years of experience after initial registration/licensure.
- (d) Agree to:
 - i. abide by the laws, rules and regulations of the Host Jurisdiction;
 - ii. meet the continuing competency assurance requirements of the Host Jurisdiction; and
 - iii. conform to the ethical standards of the Host Jurisdiction.
- (e) Declare any previous applications for registration/licensure to that jurisdiction.
- (f) Complete an application form and pay any fee required.
- (g) Provide evidence of current citizenship or permanent residency of the nation of the home jurisdiction.
- 4.3 Each Jurisdiction shall retain full discretion as to the Registration/Licensure of any applicants. If an applicant is otherwise qualified for Registration/Licensure pursuant to this Agreement, but the Host Jurisdiction rejects such applicant on other grounds or insists upon additional requirements, the Host Jurisdiction shall inform the Home Jurisdiction of the reasons for such rejection or additional requirements.
- 4.4 Nothing in this Agreement shall preclude an applicant from pursuing standard Registration/Licensure in a Jurisdiction through the exercise of existing procedures.

5 RATIFICATION AND IMPLEMENTATION

- 5.1 Engineers Canada agrees to submit this Agreement to the Canadian engineering regulators and to use their best efforts to obtain ratification of this Agreement and to obtain its timely implementation. Engineers Canada will provide a regularly updated Implementation Schedule.
- 5.2 The provisions of this Agreement will apply to Jurisdictions listed on the Implementation Schedule. Applicants from Jurisdictions listed on the Implementation Schedule will be accorded the treatment set forth in this Agreement.

6 DISCIPLINE AND ENFORCEMENT

- 6.1 Both the Board and Engineers Canada will extend co-operation to the extent possible on enforcement and disciplinary issues.
- 6.2 Each Jurisdiction will take appropriate disciplinary action if an engineer violates the standards of that Jurisdiction.
- An application for Registration/Licensure under this Agreement must include the applicant's written permission to distribute and exchange information regarding sanctions between all involved Jurisdictions. Failure to fully disclose or provide any of the required information may be the basis for denial of the application for Registration/Licensure, or for sanctions, including revocation of the Registration/License.
- An application for Registration / Licensure must include disclosure of sanctions related to the Practice of Engineering in the Home or other Jurisdictions. Information regarding sanctions may be considered in the Registration / Licensure process.
- 6.5 A Jurisdiction shall take appropriate action, subject to its own rules of procedure and the principle of due process, related to a sanction that is reported to them by another Jurisdiction

7 IMMIGRATION AND VISA ISSUES

7.1 Registration/Licensure in a Host Jurisdiction does not preclude the need to conform to applicable immigration and visa requirements of the Host Jurisdiction.

8 INFORMATION EXCHANGE

- 8.1 The signatories will notify each other and provide copies of any major changes in policy, criteria, procedures and programs that might affect this Agreement.
- 8.2 The signatories will provide an annual accounting to each other of all applicants who have applied pursuant to the terms of this Agreement and the decision reached on their applications.

9 DISPUTE RESOLUTION

- 9.1 The signatories shall at all times endeavour to agree on the interpretation and application of this Agreement, and shall make every attempt through co-operation and consultation to arrive at a mutually satisfactory resolution of any matter that might affect its operation.
- 9.2 Any signatory may request consultations in writing with another signatory regarding any actual or proposed measure or any other matter that it considers might affect the operation or interpretation of this Agreement.

10 TERM OF AGREEMENT

10.1 The Agreement will come into effect on execution.

- 10.2 The signatories shall, at least every five years, review and update the status of implementation and the effectiveness of the Agreement, and recommend changes.
- 10.3 Any Signatory may withdraw from the provisions of this Agreement three months after it provides written notice of withdrawal to the other Signatory. Any applications approved or in progress at the time of withdrawal of the agreement will be treated as if this agreement is still in existence.
- 10.4 This Agreement is intended to supplement the temporary licensing provisions under the NAFTA MRA Section 2.5. A Registered/Licensed Engineer from a Home Jurisdiction may choose to seek either Recognition under this Agreement or Temporary Licensing under the NAFTA MRA.

EXECUTED this 16 day of June 2016.

ENGINEERS CANADA

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NAFTA Mutual Recognition Agreement

Operational Procedures Document Based on NAFTA MRD Articles

Canadian Council of Professional Engineers
Texas Board of Professional Engineers
Comité Mexicano para la Pràctica Internacional de la
Ingeniería (COMPII)

Version 3.0 Ottawa, Canada September 27, 2002

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FOREWORD TO THE FIRST EDITION

This first edition was developed jointly by the Canadian Council of Professional Engineers ("CCPE"), the Texas Board of Professional Engineers ("Texas") and the Comite Mexicano para la Pràctica Internacional de la Ingenieria ("COMPII"). These organizations have formed a working group known as the NAFTA MRD Working Party ("Working Party"), established to oversee the implementation and operation of the NAFTA MRD.

This manual is intended for the use of permanent staff and volunteers of these organizations who will assess and process applications for temporary licensing under the provisions of this document.

In Canada, the distribution of this document is to volunteers and staff of the Constituent Members of CCPE, the provincial and territorial associations/Ordre. It is recommended that each member of the Board of Examiners, ARC or ERC (as applicable in each jurisdiction), as well as each staff member of the registration/admissions offices of the associations/Ordre are supplied with a copy. Manuals are to be returned to the respective association/Ordre registration/admissions office by volunteers at the conclusion of their appointment.

In Texas, the distribution of this document is to the volunteers and staff of the Texas Board of Professional Engineers.

In Mexico, the distribution of this document is to the volunteers and staff of the Comité Mexicano para la Pràctica Internacional de la Ingenieriá (COMPII). It is recommended that copies be provided to all members of the experience evaluation committee and the staff of the Colegio de Ingenieros Civiles de Mexico who will have the responsibility to assess applications for temporary Licence for civil engineers under this agreement. As Colegios in other engineering disciplines develop their procedures and establish similar committees, all members of their respective evaluation committees should receive copies.

A master distribution list is maintained by CCPE from which numbered individual copies are issued. Copies are retained and distributed by each local jurisdiction in Canada, Mexico and Texas through its own office.

The development of, and changes to, this document shall be authorized through the NAFTA Working Party. Administration of this manual is through the CCPE Department of Professional and International Affairs, working as the Secretariat to the NAFTA MRD Working Party. Revisions will be issued as policies or procedures are changed or new ones are approved by the Working Party.

Note

This manual is for the internal use of the CCPE and the Canadian provincial/territorial regulatory associations/Ordre, Texas Board of Professional Engineers and Mexico and their respective jurisdictional authorities.

NAFTA MUTUAL RECOGNITION DOCUMENT Interpretation of NAFTA MRD Articles

Operational Procedures Document

1.0 INTRODUCTION

The purpose of this document, to be known and referred to as the Operational Procedures Document or OPD, is to provide the operational policies and procedures to implement the NAFTA Mutual Recognition Document (MRD). The MRD is the acronym commonly used to refer to the NAFTA Mutual Recognition Agreement, and is used throughout the OPD. A common understanding of the articles in the MRD should ensure that any applicant, regardless of where they apply, will be assessed consistently throughout the application process by the regulatory authorities in Canada, Texas, and Mexico.

Representatives of the engineering professions in the three countries signed the NAFTA MRD on June 5, 1995. The agreement provides the basis for the mutual recognition of engineering qualifications between the regulatory bodies that regulate the practice of engineering in their respective, local jurisdictions within each country. The three parties committed to the implementation of the MRD established the NAFTA MRD Working Party, to oversee the implementation of the agreement in their respective local jurisdictions as well as subsequent monitoring, reporting and periodic review of its articles.

Under the NAFTA MRD, recognition is granted in the form of a temporary licence, on the basis of an appropriate engineering education combined with between 12 and 16 years of appropriate engineering experience. Mutual recognition assures the applicant that no further evaluation of their technical competence will be required in the application process.

The applicant must be Licenced in good standing in the "home jurisdiction". The home jurisdiction is defined as the local jurisdiction where the applicant has a valid licence or cedula (as applicable) to practice engineering. The host jurisdiction is that to which the applicant is applying for a temporary licence under this agreement.

1.1 The Practice and Regulation of Engineering

The following is a brief description of the framework for the regulation of the practice of engineering by the local jurisdictional authorities in Canada, Texas and Mexico.

In Canada, admission to engineering, and the practice of, engineering is regulated at the provincial and territorial level through provincial and territorial government legislation. There are 10 provincial and 2 territorial associations/Ordre that regulate the admission to, and the practice of, engineering through legislative engineering acts that delegate this authority to self-governing engineering associations/Ordre.

The Canadian Council of Professional Engineers (CCPE) is the federation of the 12 associations/Ordre that regulate the profession in Canada. CCPE serves as a national standard setting body and the negotiating party for all international mutual recognition agreements on

behalf of the federation but has no legislative authority and does not directly participate in the regulatory function.

In the United States, admission to engineering, and the practice of engineering is regulated at the state level though legislation. The state boards are responsible for admissions and the granting of licences for engineers to practice within their local jurisdiction. The Texas Board of Professional Engineers is responsible for granting Licences and regulating the profession of engineering in Texas.

In Mexico, engineering is one of the professions that requires a professional diploma (Titulo profesional) to practice in Mexico as established in the Law Regulating Article 5 of the Constitution related to professional practice. A graduate of an engineering program from a Mexican university receives a regular cedula that entitles them to practice engineering in Mexico.

The Comité Mexicano para la Pràctica Internacional de la Ingenierie (COMPII) is an official body recognized by the authorities of the Directorate General of Professions (DGP), a part of the Ministry of Education, the Ministry of Economy and the National Immigration Institute and by the representatives of the professional and academic sectors as the negotiating body for the liberalisation of engineering professional services within the framework of international agreements that Mexico participates.

1.2 Status of the Operational Procedures Document

The OPD serves as the controlling document with respect to standards, criteria, policies, procedures and measures for jurisdictions implementing and operating under the NAFTA MRD). In the absence of any reference or specification in the OPD, provisions in the host jurisdiction shall prevail. In the absence of any reference or specification in the OPD or host jurisdiction, the MRD shall prevail.

1.3 Organization of the OPD

The OPD follows the format and numbering of the articles in the NAFTA MRD. Interpretations and explanations that will provide guidance on policies and procedures are described. It includes several appendices listed as follows:

Appendix A – Copy of the signed NAFTA Mutual Recognition Agreement, dated June 5, 1995;

Appendix B – Glossary of Terms for the NAFTA MRD and OPD;

Appendix C – Criteria to Assess Engineering Experience:

Appendix D – Name and Type of Licence by Jurisdiction:

Appendix E – List of Local Jurisdictions;

Appendix F – Application Processes.

2.0 Interpretation of MRD Articles

The NAFTA MRD is included as Appendix A in this OPD.

2.1 NAFTA MRD Article I – Preamble

Under the document, mutual recognition is based on three principles:

- Objective and transparent criteria such as competence and ability to provide a service;
- Entry requirements are no more burdensome than necessary to ensure the quality of a service;
- Do not constitute a disguised restriction on the cross-border provision of a service.

The original document signed in 1995 extends to all nationals of Canada, United States and United Mexican States who must meet certain criteria in terms of their education, and experience to qualify for assessment under the document.

The original signatories to the document in 1995 included CCPE (for Canada), COMPII (for Mexico) and USCIEP (for United States). However the USCIEP signed on to the document provisionally, for an initial period of two years following which there would be an assessment made and vote taken as to whether they would become a permanent signatory.

When the two years expired in 1997, the USCIEP advised that they could not implement the document on a permanent basis. Canada and Mexico were advised that the U.S. State boards would not implement the document and there was no mechanism to force them to comply. During the two years while USCIEP was a signatory, one U.S. state, Texas, elected to implement the provisions of the document. When the USCIEP withdrew from the MRD, Texas remained as a party to the document. Thus Texas became a member of the NAFTA Working Party.

Based on this history and the current situation in 2002 with respect to the parties implementing the MRD, the following is the **policy with respect to the eligibility of applicants** to be assessed under the provisions of this document:

Canada

Canadian citizens and landed immigrants who are professional engineers (P.Eng./Eng./Ing.)
 registered/Licenced to practice in at least one Canadian jurisdiction are eligible to apply.

Mexico

 Agreement is available to Mexican citizens who have a cedula licence in good standing with the Direccion General de Profesiones de la Secretaria de Educacion Publica (SEP) and state governments.

United States

 The State of Texas has ratified and implemented this agreement. It is available to those U.S. citizens who are professional engineers (P.E.) Licenced in good standing with the Texas Board of Professional Engineers.

- Other states may individually implement the MRD; however, they must also agree to implement according to the current version of the OPD. They will be required to notify their intent to implement the MRD to the NAFTA Working Party. However, they will not be accepted until they become a signatory to the OPD.
- Once a jurisdiction has signed the OPD, engineers Licenced in good standing in that jurisdiction can apply to any of the other parties to the OPD and are assessed under the provisions of the OPD and the NAFTA MRD.

2.2 NAFTA MRD Article II – Representative Engineering Organizations

The NAFTA MRD lists one Representative Engineering Organization (REO) for each country as follows:

Canada: Canadian Council of Professional Engineers (CCPE);

Mexico: Comité Mexicano para la Práctica Internacional de la Ingeniería (COMPII);

U.S.: United States Council for International Engineering Practice (USCIEP)

(USCIEP members are ABET, NSPE, NCEES, ACEC)

Because the USCIEP has not ratified the agreement, it will not be considered the REO from the United States until such time as they do agree to ratify. Since the State of Texas has agreed to implement under the OPD, it will have the same status as an REO for the purposes this OPD. Should other states agree to implement, but in the absence of ratification by USCIEP, they shall negotiate an arrangement with Texas to nominate a single representative to have REO status.

The purpose and function of an REO is the following:

- Communication and consultation with their local jurisdictions concerning the implementation and operation of the OPD;
- Communication with other REOs on any issues arising with the OPD and/or the NAFTA MRD:
- Member of the NAFTA Working Party;
- Annual collection of data and reporting on the use, benefits and issues with the MRD and/or OPD:
- Participate in bi-annual meetings of the NAFTA Working Party and other ad-hoc meetings as required;
- Joint administration, periodic review and adjustment of Operational Procedures Document;
- Consultation and communication with their respective local jurisdictions who are implementing the NAFTA MRD under the provisions of the OPD;
- Assign Licenced engineers to establish panels for dispute resolution as required;
- Notice of withdrawal from the MRD and OPD, if so decided;
- Any future negotiation of amendments to the NAFTA MRD;
- Provide appropriately qualified and experienced individuals to participate in working groups, commissions and task forces established by the NAFTA Working Party.

2.3 NAFTA MRD Article III – Definitions

All definitions and terminology listed in the MRD are provided in Appendix B of this document. Additional definitions have been added as required.

Note that Mexico has now accredited a significant number of engineering programs since the MRD was signed in 1995. Therefore the footnote in the MRD at the bottom of page 2 as it relates to the Mexican accreditation authority CACEI, has been modified from the original wording in the MRD.

2.4 NAFTA MRD Article IV – Engineering Practice

The NAFTA MRD includes a definition of Engineering Practice as follows:

The practice of engineering is any work or undertaking, which includes the following elements:

- Particular intellectual activities or acts or combinations of them;
- Application of engineering principles utilizing special knowledge involving mathematical, physical or engineering sciences; and
- A requirement for the safeguarding of societal interests (life, health and public welfare)

In Canada, the practice of engineering is governed by provincial/territorial legislation and is regulated by the provincial and territorial engineering associations/Ordre. The CCPE definition of Engineering Practice is:

"The 'practice of professional engineering' means any act of planning, designing, composing, evaluating, advising, reporting, directing or supervising, or managing any of the foregoing, that requires the application of engineering principles, and that concerns the safeguarding of life, health, property, economic interests, the public welfare or the environment."

Note that the definition of the practice of engineering differs slightly within local jurisdictions in accordance with local definitions.

In Mexico, the practice of engineering is controlled federally through the Direction General de Profesiones de la SEP. The definition translated into English is as follows:

"Professional practice means the common performance of all acts, or rendering any service related with each profession" (in this case Engineering)

Disciplines which consist of the application of scientific knowledge for the invention, improvement and utilization of processes, systems and techniques of industrial design, construction, operation and maintenance of equipment, installations, instruments, machines and works for the purpose of transforming nature's benefits and resources to satisfy the needs of society."

In the United States the practice of engineering governed by state/territorial legislation. The Texas Board of Professional Engineers defines the Practice of engineering as:

"'Practice of engineering' or 'practice of professional engineering' shall mean any service or creative work, either public or private the adequate performance of which requires engineering

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education, training or experience in the application of special knowledge or judgement of the mathematical, physical, or engineering sciences to such services or creative work."

Within each jurisdiction the scope of practice covered by MRD is that for which a licence or cedula profesional is enforced.

2.5 NAFTA MRD Article V – Temporary Licensing

The NAFTA MRD is intended to provide a temporary licence for suitably qualified applicants wishing to work in one or more of the local jurisdiction(s) in another country. The temporary licence may be one year with up to two annual renewals. Alternatively the temporary licence can be issued for a specific project.

The REOs agree to work with their local jurisdictions as applicable to develop fair and equitable procedures for temporary licensing of engineers Licenced in other jurisdictions covered by this document, for a maximum of three years.

The temporary licence allows the applicant to practice or offer to practice engineering in a host jurisdiction for a maximum of three years OR practice for the duration of a specific project. <u>Note that the holder of a temporary licence under this document does not have to be resident or set up an office in the jurisdiction where temporary licence is held.</u>

The NAFTA MRD sets forth several requirements and criteria to qualify applicants for temporary licensing as described in the following subsections.

2.5.1 Type of Licence Issued

The name the type of licence to be issued in compliance with the MRD will vary by jurisdiction in accordance with the local legislation. The names and types of licences are documented in Appendix D.

Note that temporary Licences issued by the Canadian provinces of Ontario and Quebec have a term and condition which requires the holder to collaborate with a Licenced member of the association to ensure the work complies with Canadian and Ontario/Quebec (as applicable) codes, standards and laws governing the work. This requirement can be waived if the holder provides evidence that they are knowledgeable about all codes, standards and laws relevant to the work undertaken under the temporary Licence.

2.5.2 Academic Qualifications

The applicant must provide acceptable academic documentation from the institution that granted their undergraduate engineering degree. Acceptable academic documentation shall be original transcripts directly provided by the institution or notarized by the issuing institution.

The **responsibility for the assessment** of academic qualifications is as follows:

- Canada individual provincial Boards of Examiners/Academic Requirement Committees;
- Mexico Ministry of Education SEP;
- Texas Texas Board of Professional Engineers.

The MRD distinguishes between graduates of accredited or recognized engineering programs and non-accredited ones as follows:

- Degree from an accredited engineering program or from a substantially equivalent engineering program (i.e. one that is recognized by all MRD REO accrediting agencies);
- Degree from a non-accredited engineering program of four years or more (requires four more years of experience than for an accredited degree).

An applicant holding a verified Canadian P.Eng. or ing. Licence shall be considered by all parties to this OPD to have academic qualifications substantially equivalent to an accredited engineering program in Canada.

Verification of the degree requires that the applicant submit with their application an official transcript of his or her degree and academic program of study.

2.5.3 Assessment of Experience

The required number of years of acceptable engineering experience (as described below) required after graduation depends on the engineering degree earned by the applicant:

- 12 years of acceptable engineering experience, of which at least 8 must follow licensure (for holders of accredited or recognized degrees); OR
- 16 years of acceptable engineering experience, of which at least 12 must follow licensure (for holders of non-accredited or non-recognized degrees of 4 years duration or more)

References are a critical part of the process to properly assess the engineering experience. Applicants are required to provide references to verify all engineering experience claimed to meet the number of years of experience required under the provisions of this OPD. The number of references required is at the discretion of the host jurisdiction in accordance with their own rules and procedures. Most, if not all, references should be Licenced professional engineers who have personal knowledge of the applicant's engineering experience. Local jurisdictions should instruct references to review and document an applicant's experience in accordance with the criteria defined in this OPD (Section 2.5.3 and Appendix C).

The roles and responsibilities of home and host jurisdictions with respect to experience evaluation are explained in Appendix F, Application Process.

Work experience is an essential element in determining whether or not an individual is eligible for the issuance of a licence in a host jurisdiction under the NAFTA MRD. Acceptable engineering work experience must include the application of theory and should provide experience in the following broad areas: practical experience, management, communication, and the social implications of engineering. Further explanation of these elements is provided in Appendix C, *Criteria to Assess Engineering Experience*.

In some jurisdictions, particular experience may be required to carry out some specific types of engineering work. For example, in northern areas of Canada, cold climate engineering experience would be required for some types of work.

The applicant will be required to demonstrate satisfactory work experience in all areas.

The following are additional elements of experience that would normally be reflected in an engineers experience profile at 12 to 16 years of experience. The following experience areas shall be documented in the experience profile submitted by the applicant:

- Broad-based in engineering activities;
- Increased levels of responsibility;
- Increasing levels of complexity;
- Demonstrated judgement.

Applicants are expected to have practised under supervision and to have taken an increasing level of responsibility for work during the eight or twelve years of additional experience following licensure as applicable. They must also demonstrate involvement in the comprehensive range of roles and activities appropriate to their field of engineering, and have been involved in and taken an increasing scope of responsibility for significant engineering work. This must be demonstrated as being in responsible charge of engineering work for a number of projects that span the applicable required period of experience following licensure.

Significant engineering work shall have required the exercise of independent engineering judgement. The projects or programs concerned shall have been substantial in duration, cost, and complexity, and the applicant must have been personally accountable for his or her success or failure. To be "significant", an engineering work should:

- Represent an advanced application of the knowledge of a particular discipline that goes beyond standard solutions found in manuals of practice;
- Be done in an environment where the engineer has full autonomy and responsibility;
- Show evidence that the accomplishment requires a syntheses capability that only those who
 fully appreciate the various interactions of the topics of their discipline will have; and
- Be a significant part of a total engineering project, where it is clearly demonstrated that the candidate understands the total project concept.

In general, applicants will be considered to have been *in responsible charge of* significant engineering work when they have:

- planned, designed, coordinated, executed and commissioned at least one complete engineering project; or
- undertaken a significant part of a large engineering project based on an understanding of the whole project; or
- undertaken novel, complex and/or multidisciplinary work associated with a significant engineering project.

Responsible charge directly relates to the degree of control an engineer is required to maintain while exercising independent control or direction of engineering work, and to the engineering decisions, which can be made only by a professional engineer. Further explanation of the criteria to determine the degree of control is provided in Appendix C, *Criteria to Assess Engineering Experience*.

2.5.4 Local Codes and Standards

The applicant must satisfy the licensing authority in the host jurisdiction that they have the requisite knowledge of local regulations, codes and provisions of law governing the practice of engineering. The applicants are obligated to develop this knowledge as a condition of licensure.

In some local jurisdictions, for some particular engineering practises, there may be a precondition of licensure to have knowledge of particular codes and regulations. The applicant may be required to be either tested on, or pass a course on, local codes and standards applicable to their intended area of practise prior to receiving a Licence to practice.

Local jurisdictions will be requested to develop a form for a declaration to be signed by the applicant that commits them to develop the local knowledge.

2.5.5 Knowledge of Engineering Ethics, Law and Professionalism

In Canada, all applicants for licensure are required to demonstrate their knowledge of engineering ethics, the engineering laws of Canada and the host jurisdiction and issues around professionalism. This non-technical knowledge is demonstrated through passing a separate examination known in Canada as the Professional Practice Examination (PPE). This is a mandatory non-technical requirement for all applicants in all local jurisdictions of the Canadian engineering profession.

The PPE is available for writing four times per year at roughly quarterly intervals. The test can be administered either at the offices of the host jurisdiction, or arrangements can be made to have the examination written in the facilities of the home jurisdiction.

The PPE must be passed as a condition of licensure in local jurisdictions in Canada.

Mexico does not have this requirement at this time, but it is under consideration.

Applicants to Texas must take the Texas Engineering Professional Conduct and Ethics Examination. This examination is "open book", and requires review of the Texas Engineering Practice Act, Bylaws and Board Rules. This non-technical examination can be downloaded from the Board website or requested in hard copy from the Board office.

2.5.6 Language Requirements

The languages of commerce in the local host jurisdiction of the REOs are as follows:

Canada: English (French in 2 associations/Ordre for regular licence after temporary

licence period)

Texas: English Mexico: Spanish

Applicants must demonstrate the ability to write and communicate orally in the language of commerce of the host jurisdiction within three years after initially receiving a temporary licence under the terms of this document. This period corresponds to the point where the applicant can no longer obtain a temporary licence under this document, and must then seek a regular licence.

The home or host jurisdiction shall facilitate the evaluation of these capabilities at the request of the applicant. Language testing methodologies may vary and could include recognized formal testing procedures, interviews, essays and peer reviews. Local jurisdictions that are parties to this OPD shall inform all of the other participating jurisdictions of the methods and procedures they use for language testing.

2.6 NAFTA MRD Article VI – Licensing

Nothing in the MRD or this OPD shall prevent any individual from pursuing licensure in any local jurisdiction through the exercise of current procedures. Applications shall be dealt with in a timely manner. Home jurisdictions will make their best efforts to provide information in a timely manner.

After three years, the temporary licence holder can apply for regular licensure and be Licenced without further examination except as required by law in the host jurisdiction. However, applicants may continue to obtain temporary licensure after three years if this is the only form of licensing available by law within the host jurisdiction.

Application for a regular licence after three years is subject to immigration and visa requirements of the host jurisdiction (e.g. restrictions to Canadian citizens or landed immigrants).

2.7 NAFTA MRD Article VII – Immigration and Visa Issues

Obtaining a licence to practice in a jurisdiction does not preclude the need to conform to the applicable immigration and visa requirements of the NAFTA party of which the host jurisdiction forms a part. There is a distinction between immigrating/moving to the country, performing work within the country temporarily (project specific) and performing work in the country but from outside the country.

Host jurisdictions shall inform the applicant of the need to meet immigration or visa requirements as well as provide contacts. Obtaining the necessary immigration approvals will be the sole responsibility of the applicant.

2.8 NAFTA MRD Article VIII – Principals of Ethical Practice

Host jurisdictions shall ensure the applicant agrees to abide to the host jurisdiction code of ethics.

2.9 NAFTA MRD Article IX - Provisions Related to Discipline and Enforcement

The practice of engineering is governed by existing statues in the host jurisdiction. Every engineer must report to the host jurisdiction all of the jurisdictions where he/she is Licenced to practice. The applicant must include information on sanctions related to engineering practice in other jurisdictions.

The applicant must agree that such information may be distributed and exchanged among involved jurisdictions. Failure to disclose sanctions may result in denial of an application or revocation of a licence.

All engineers are to conform to the local code of ethics and rules and regulations of the host jurisdiction while practising there.

Engineers are subject to any practice review and agree to accept individual sanctions or limitations that may be applied by the host jurisdiction.

Each jurisdiction will take action if the engineer violates their code of ethics on professional practice. It shall only report to all other jurisdictions where the engineer is Licenced to practice if sanctions are imposed. All jurisdictions will extend full cooperation on all discipline and enforcement matters and imposing/enforcing sanctions subject to legislative restrictions.

Each jurisdiction shall take appropriate action on a sanction that is reported to it by another jurisdiction.

All jurisdictions shall take all available steps to enforce any fines, restrictions or sanctions imposed on one of their Licencees under the laws, rules and regulations of another jurisdiction.

2.10 NAFTA MRD Article X – Continuing Competence

The engineer shall follow the rules and regulations as required by the host jurisdiction to maintain his or her competence through continuing professional development.

Once licenced, applicants will be required to provide evidence that they have maintained their continuing professional development (CPD) or a similar program at a satisfactory level. In host jurisdictions where there is a mandatory CPD or similar program in place, an engineer Licenced in a host jurisdiction shall be required to invest in continuing professional development to satisfy the requirements of that jurisdiction.

2.11 NAFTA MRD Article XI – Dispute Resolution

NAFTA MRD Article XI in Appendix A provides a description of the dispute resolution procedure.

2.12 NAFTA MRD Article XII – Mechanisms and Procedures

The NAFTA MRD requires each REO to establish one focal point where information can be obtained on the Licence status and sanctions of engineers Licenced under the provisions of this document. The focal points shall be as follows:

Canada: Canadian Council of Professional Engineers; Mexico: DGP from the Ministry of Education (SEP); Texas: Texas Board of Professional Engineers:

The responsibility of these parties are to either maintain this information themselves or facilitate the provision of this information from their local jurisdictions when it is requested by another REO or its local jurisdiction. The focal points will have a database of the licensing status and sanctions of their engineers Licenced in host jurisdictions under the provisions of this OPD. The NAFTA Working Party shall develop a standard format and procedure for recording the pertinent information and develop workable policies around its release to the other parties.

The members of the NAFTA Working Party will exchange the glossary of terms used by their local jurisdictions defining terms related to sanctions.

Suggestions and guidance on the application form and other declarations needed by the local jurisdictions who are parties to this OPD include:

- The application form of the host jurisdiction could be used with a common NAFTA form attached. The format of the covering NAFTA form will be developed by the NAFTA Working Party;
- Consent to disclose information form (to be signed by the applicant as part of their application);
- Declaration to comply with applicable codes and standards, (to be signed by the applicant as part of their application);
- Declaration to adhere to the host jurisdiction code of ethics and acceptance that their
 practice shall be subject to review by any host jurisdiction in which they practice and that
 they shall accept any individual practice limitations or sanctions which may be applied (to be
 signed by the applicant as part of their application);
- Declaration from the home jurisdiction on status of registration i.e. in good standing, and disclosure of sanctions imposed or served, if any.

The NAFTA Working Party will review the rules and procedures in this OPD at its first meeting to be held two years after the OPD is officially implemented.

This OPD is considered the founding and controlling document for the rules and procedures necessary to carry out and monitor the provisions of the NAFTA MRD.

2.13 NAFTA MRD Article XIII – Ratification and Implementation

REOs shall use their best efforts to obtain ratification and timely implementation of the OPD by their respective local jurisdictions.

Local jurisdictions shall submit a letter of intent through their respective REO to the appropriate national section of the Free Trade Commission Secretariat. REOs shall provide each national section of the Free Trade Commission Secretariat with a regularly updated list of jurisdictions that have implemented in accordance with Schedule A of the MRD.

Appendix E lists the names of the local jurisdictions from the respective local jurisdictions of the NAFTA Working Party that would implement the OPD.

2.14 NAFTA MRD Article XIV – Periodic Review and Renewal

Each REO will assign representatives to sit on the NAFTA Working Party. The NAFTA Working Party will meet at least every two years to review the document.

There shall be a rotating secretariat for the NAFTA Working Party. Canada (CCPE) shall serve as the secretariat for the first two years after the OPD is signed off, including hosting the first meeting of REOs two years after OPD is activated. No REO will serve more than two consecutive terms as the Secretariat.

Each REO will be responsible for annual reporting to the other REOs about its use and problems with the OPD – within four months of the end of the calendar year. Each REO will be responsible for consulting and surveying its local jurisdictions on their use and problems with the document as a contribution towards the REO annual report.

2.15 NAFTA MRD Article XV – Withdrawal

An REO may withdraw from the provisions of this OPD and no longer be a party to this document six (6) months after it provides written notice of withdrawal to the other REOs. If an REO withdraws, the document shall remain in force for the remaining REOs.

Withdrawal from the NAFTA MRD by one local jurisdiction (e.g. association/ordre in Canada) will not result in the withdrawal of the REO – the OPD and MRD will apply to remaining local jurisdictions. The local jurisdiction shall be subject to the same withdrawal provisions, i.e. 6 months after notice. In the event that a local jurisdiction elects to withdraw from this document, its REO shall inform the other REOs.

APPENDIX A NAFTA MUTUAL RECOGNITION AGREEMENT JUNE 5, 1995

NAFTA MUTUAL RECOGNITION AGREEMENT

MUTUAL RECOGNITION OF REGISTERED/LICENCED ENGINEERS
BY JURISDICTIONS OF CANADA, THE UNITED STATES OF AMERICA
AND THE UNITED MEXICAN STATES
TO FACILITATE MOBILITY IN ACCORDANCE WITH
THE NORTH AMERICAN FREE TRADE AGREEMENT

June 5, 1995

I. PREAMBLE

The North American Free Trade Agreement (NAFTA - Chapter XII) encourages "the relevant bodies in their respective territories to develop mutually acceptable standards and criteria for licensing and certification of professional service providers and to provide recommendations on mutual recognition to the (NAFTA) Commission".

Within the spirit and context of the NAFTA, this document sets out standards, criteria, procedures and measures for mutual recognition which:

- (a) are based on objective and transparent criteria, such as competence and the ability to provide a service;
- (b) are not more burdensome than necessary to ensure the quality of a service; and
- (c) do not constitute a disguised restriction on the cross-border provision of a service."

Provisions under this document apply to nationals of Canada, the United States of America or the United Mexican States who are Licenced to practice engineering in their home jurisdiction.

Nothing in this document shall apply to individual practice and malpractice disputes.

II. REPRESENTATIVE ENGINEERING ORGANIZATIONS

The development of enabling procedures for cross-border trade in engineering services has been undertaken by a Representative Engineering Organization (REO) from each of Canada, the United States of America and the United Mexican States [Appendix1-Letters from national governments].

The Representative Engineering Organization for each nation is:

CANADA Canadian Council of Professional Engineers (CCPE)

THE UNITED STATES of AMERICA
United States Council for International Engineering Practice (USCIEP)

THE UNITED MEXICAN STATES

Comité Mexicano para la Práctica Internacional de la Ingeniería (COMPII)

III. DEFINITIONS

Within this document the terms used shall have the following meanings:

"Accredited engineering program" means an engineering program accredited by the CEAB of CCPE, EAC of ABET or CACEI¹.

"CACEI" is the Consejo de Acreditación de la Enseñanza de la Ingeniería in the United Mexican States.

"CEAB" is the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers.

"EAC of ABET" is the Engineering Accreditation Commission of the United States of America Accreditation Board for Engineering and Technology.

"<u>Jurisdiction</u>" means (i) a state or territorial engineering licensing Board in the United States of America, (ii) a provincial or territorial professional engineering association/ordre in Canada, and (iii) the Dirección General de Profesiones de la Secretaría de Educación Pública (SEP) and the state governments in the United Mexican States.

"<u>Home Jurisdiction</u>" means the designated jurisdiction in which an engineer holds a current licence and has practiced for at least two years.

"<u>Host Jurisdiction</u>" means the jurisdiction to which an engineer applies for reciprocal recognition under the terms of this document.

"<u>Licensure</u>" means the process by which a person obtains the legal right to practice engineering and to use the titles P.E. or S.E. in the United States of America, P.Eng., ing., or Eng. in Canada, or Ing. and receives the Cédula Profesional in engineering in the United Mexican States.

"Substantially Equivalent Engineering Program" means a non-accredited engineering program which has been recognized by the CEAB of CCPE, EAC of ABET or CACEI.

"<u>Verification of academic education</u>" is the review of educational documents to assess the level and quality of an applicant's engineering education. If required, the assessment may include interview(s) and examination(s).

IV. ENGINEERING PRACTICE

¹ CEAB and EAC have a long-standing process of mutual verification, and continue to monitor each other's accreditation systems, policies and procedures. At the time of signing of this document, CACEI has not yet accredited any programs. This definition is written on the assumption that CACEI, when it is fully operational, will be subject to the same mutual verification and monitoring arrangements.

The Practice of Engineering is any work or undertaking which includes all of the following fundamental elements:

- a) particular intellectual activities or acts or combinations of them;
- b) the application of engineering principles utilizing special knowledge involving mathematical, physical and engineering sciences; and
- c) a requirement for the safeguarding of societal interests (life, health, public welfare).

In Canada, the Practice of Engineering is governed by Provincial/Territorial legislation. In México, the Practice of Engineering is controlled by the Dirección General de Profesiones de la SEP and the state governments. In the United States, the Practice of Engineering is governed by State/Territorial legislation. Within each national, state, provincial and territorial jurisdiction, the scope of practice covered by this agreement shall be that for which a Licence or Cédula Profesional is enforced.

V. TEMPORARY LICENSING

The REOs agree to develop fair and equitable procedures for temporary licensing of professional service providers. A "**Temporary Licence**", which must be renewed annually, permits an engineer licenced in a home jurisdiction:

- to practice or offer to practice engineering in a host jurisdiction for a maximum of three years, or
- b) to practice in a host jurisdiction for the duration of a specific project.

No jurisdiction shall require a service provider of another jurisdiction to establish or maintain a representative office or any form of enterprise, or to be resident, in its territory as a condition for the issuance of a temporary Licence for cross-border provision of a service.

To obtain a temporary Licence, applicants who have graduated from an accredited engineering program or from a substantially equivalent engineering program shall, in addition to providing acceptable academic documentation:

- a) Have a minimum of twelve (12) years of acceptable engineering experience of which at least eight (8) years shall be following licensure; and
- b) Satisfy the licensing authority in the host jurisdiction that they have the requisite knowledge of local regulations, codes and provisions of law governing the practice of engineering (eg. health and safety, geography and climate); and
- c) Demonstrate their ability to communicate effectively in the language of commerce of the host jurisdiction; and
- d) Satisfy the licensing authority in the host jurisdiction that they have provided for client and consumer protection by meeting local regulatory, legal and contractual requirements enforceable under that host jurisdiction's laws; and
- e) Provide a statement of their willingness to accept cross-border discipline and enforcement and any fines, restrictions or sanctions ultimately imposed in the case of unprofessional practice and/or violations of local laws, rules and regulations.

To obtain a temporary Licence, applicants who have graduated from a non-accredited engineering program of four (4) years or more shall:

- a) Have a minimum of sixteen (16) years of acceptable engineering experience of which at least twelve (12) shall be following licensure; and
- b) Have their academic education verified; and
- c) Satisfy the licensing authority in the host jurisdiction that they have the requisite knowledge of local regulations, codes and provisions of law governing the practice of engineering (eg. health and safety, geography and climate); and
- d) Demonstrate their ability to communicate effectively in the language of commerce of the host jurisdiction; and
- e) Satisfy the licensing authority in the host jurisdiction that they have provided for client and consumer protection by meeting local regulatory, legal and contractual requirements enforceable under that host jurisdiction's laws; and
- f) Provide a statement of their willingness to accept cross-border discipline and enforcement and any fines, restrictions or sanctions ultimately imposed in the case of unprofessional practice and/or violations of local laws, rules and regulations.

Each jurisdiction shall develop all necessary rules, regulations and procedures for receiving and processing applications in order to implement the provisions of this document.

VI. LICENSING

Nothing in this document shall preclude any individual from pursuing licensure in any jurisdiction in Canada, México or the United States through the exercise of existing procedures. A host jurisdiction shall ensure that applications for a Licence or Cédula Profesional by a holder of a Licence or Cédula Profesional of another jurisdiction are dealt with in a timely manner. The REOs agree to use their best efforts to ensure that home jurisdictions and authorities support such applications by providing all required information in a timely manner.

A person who holds a temporary Licence may, in the third year, apply for a regular Licence and may be Licenced without further examination unless specifically required otherwise by the laws of the host jurisdiction to which the person is applying.

No jurisdiction shall require a service provider of another jurisdiction to establish or maintain a representative office or any form of enterprise, or to be resident, in its territory as a condition for the issuance of a Licence for cross-border provision of a service.

VII. IMMIGRATION AND VISA ISSUES

A Licence for the practice of engineering in a host jurisdiction does not preclude the need to conform to applicable immigration and visa requirements of the NAFTA Party of which the host jurisdiction forms a part.

VIII. PRINCIPLES OF ETHICAL PRACTICE

A key characteristic of an engineer is conformance to ethical standards of truth, honesty and integrity as the basis for ethical practice. This includes abiding by the laws, rules and regulations of any jurisdiction in which the engineer may practice. Those engineers who wish to be recognized and to practice internationally accept as guidance certain principles of ethical practice as defined in the attached "Principles of Ethical Conduct in Engineering Practice" (Appendix 2).

IX. PROVISIONS RELATED TO DISCIPLINE/ENFORCEMENT

The practice of engineering in each host jurisdiction is governed by the existing statutes in that jurisdiction.

Each jurisdiction shall require an engineer to maintain a current list of all jurisdictions in which he or she is Licenced to practice engineering, and to provide that information to the host jurisdiction upon application for a Licence.

An application for licensure must include disclosure of sanctions related to engineering practice in other jurisdictions. Information regarding sanctions will be considered in the licensing process.

An application for licensure must include the applicant's written permission to distribute and exchange information regarding sanctions between all involved jurisdictions.

Failure to fully disclose or provide any of the required information may be the basis for denial of the Licence to practice engineering, or for sanctions, including revocation of the Licence.

Engineers who are Licenced to perform engineering services in a specific jurisdiction are obligated to conform to the Code of Ethics and Rules and Regulations of Professional Practice of that jurisdiction. In addition, they accept that their practice shall be subject to review by any host jurisdiction in which they practice and that they shall accept any individual practice limitations or sanctions which may be applied.

The licensing authority will take appropriate disciplinary action if an engineer violates the Code of Ethics or Rules and Regulations of Professional Practice of that jurisdiction. Each jurisdiction shall promptly report sanctions to all other jurisdictions in which the engineer is Licenced to practice.

A jurisdiction shall take appropriate action, subject to its own rules of procedure and the principle of due process, related to a sanction that is reported to them by another jurisdiction. Each home jurisdiction shall provide for review of cross-border sanctions.

The jurisdictions who implement this agreement acknowledge their willingness to take all available steps to enforce any fines, restrictions or sanctions ultimately imposed upon one of their Licencees under the laws, rules and regulations of another jurisdiction.

X. CONTINUING COMPETENCE

Engineers shall be required to maintain their competence and to practice only in areas of expertise in which they are competent. Responsibility for continuing competence rests with the individual engineer who must comply with all local jurisdictional requirements.

XI. DISPUTE RESOLUTION

This section applies to the interpretation of the provisions for cross-border discipline and sanctions as provided for in this document.

REOs shall at all times endeavour to agree on the interpretation and application of this document, and shall make every attempt through cooperation and consultation to arrive at a mutually satisfactory resolution of any matter that might affect its operation. Any REO may request in writing (with a copy to the other REOs) consultations with another REO regarding any actual or proposed measure or any other matter that it considers might affect the operation or interpretation of this document. Any REO may call for a panel to be established to hear a dispute or to deal with new issues which may arise. In such case, a panel of three (3)

Licenced engineers shall be established with one (1) engineer appointed by each REO. The three (3) panellists may jointly select a voting chair from among themselves or may appoint a fourth individual as a non-voting chair. The panel shall convene within sixty (60) days and provide a written decision within one hundred and eighty (180) days.

The decision of the panel may include:

- a) opinions with respect to the issue(s),
- b) directives for specific actions,
- c) recommendations to modify the document where the document is unclear or misleading or yielding unintended results. (Clarifications to wording by the addition of interpretive statements or editorial changes will not require ratification. Other changes will.)

Where a jurisdiction fails to act in accordance with a directive within ninety (90) days, the jurisdiction shall be notified of their potential deletion from Schedule A. In such case, the jurisdiction may request, within ninety (90) days, a final review of the decision by a new panel. If the decision of the review panel is not accepted by the jurisdiction, the jurisdiction may propose to the appropriate national authority that the dispute be resolved in accordance with Chapter XX of the NAFTA.

A jurisdiction which has been deleted from Schedule A for failure to follow a directive may apply for reinstatement upon evidence of compliance.

XII. MECHANISMS AND PROCEDURES

The implementation of the provisions of this document require the REOs to take certain actions to establish mechanisms and procedures including, but not limited to:

- a) establishing one focal point in each nation of Licence status and sanctions of engineers Licenced under the provisions of this document;
- b) creating consistent terminology defining terms related to sanctions;

- c) developing communication mechanisms to assist engineers in understanding their responsibilities when Licenced in various jurisdictions;
- d) establishing such rules and procedures as may be necessary to carry out and monitor the provisions of this document.

XIII. RATIFICATION AND IMPLEMENTATION

The REOs agree to use their best efforts to obtain ratification of this document. The REOs agree to submit this document to the jurisdictions within their purview and to use their best efforts to obtain its timely implementation. A jurisdiction in the process of implementing the provisions of this document may indicate this in a letter of intent to the appropriate national section of the Free Trade Commission Secretariat. The REOs agree to provide to each national section of the Free Trade Commission Secretariat a regularly updated list of jurisdictions that have implemented or executed a letter of intent to implement the provisions. Schedule A shall be the list of such jurisdictions.

The provisions of this document will apply to jurisdictions listed on Schedule A who have implemented or taking the necessary steps to implement them. Applicants from jurisdictions listed on Schedule A will be accorded the treatment set forth herein.

XIV. PERIODIC REVIEW AND RENEWAL

The REOs shall convene at least every two (2) years to review and update the status of implementation and the effectiveness of the document and to recommend changes as required.

XV. WITHDRAWAL

An REO may withdraw from the provisions of this document and no longer be a party to this document six (6) months after it provides written notice of withdrawal to the other REOs. If an REO withdraws, the document shall remain in force for the remaining REOs.

Accepted and Witnessed by the delegates as evidenced by their signatures hereto in Washington, D.C., on the 5th of June, 1995.

CANADA Canadian Council of Professional Engineers

John R. McDougall, P.Eng.	William H. Kerr, P.Eng.
55	a
Jack Bordan, ing.	Axel Meisen, P.Eng.
Kenneth H. Williams, P.Eng.	Donald G. Laplante, P.Eng.
	ATES OF AMERICA ernational Engineering Practice
Charles L. Kimberling, P.E., L.S. NCEES	E. David Dorchester, P.E. NSPE
William L. Karr, L.S. NCEES	Albert T. Kersich, P.E. ABET
George D. Peterson, P.E. ABET	E. Walter LeFevre, P.E. NSPE
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Ing. Fernando Favela Lozoya, Chairman	Ing. Fernando Ocampo Canabal CIEES
Ing. Humberto Peniche Cuevas FECIC	Ing. Galo Carretero López CONIQQ
Ing. Jorge Arganis Díaz Leal CICM	Ing. Enrique Luengas Hubp CIME

SCHEDULE A

Mutual Recognition of Registered/Licenced Engineers by Jurisdictions in Canada, the United States of America and the United Mexican States to Facilitate Mobility in Accordance with **The North American Free Trade Agreement**

RECORD of IMPLEMENTATION

CANADA Letter of Intent **Implemented**

Alberta

British Columbia

Manitoba

Newfoundland

New Brunswick

Northwest Territories

Nova Scotia

Ontario

Prince Edward Island

Quebec

Saskatchewan

Yukon

THE UNITED STATES of AMERICA

Letter of Intent **Implemented**

Alaska

Alabama

Arizona

Arkansas

California

Colorado

Connecticut

Delaware

Florida

Georgia

Hawaii

Idaho

Illinois (PE)

Illinois (SE)

Indiana

Iowa

Kansas

Kentucky

Louisiana

Maine

Maryland

Massachusetts

Michigan

Minnesota

Mississippi

Missouri

THE UNITED STATES of AMERICA

Letter of Intent

Implemented

Montana

Nebraska

New Hampshire

New Mexico

New Jersey

New York

Nevada

North Carolina

North Dakota

Ohio

Oklahoma

Oregon

Pennsylvania

Rhode Island

South Carolina

South Dakota

Tennessee

Texas

Utah

Vermont

Virginia

Washington

West Virginia

Wisconsin

Wyoming

District of Columbia

Guam

Puerto Rico

Virgin Islands

Northern Mariana Islands

ESTADOS UNIDOS MEXICANOS

Letter of Intent

Implemented

Distrito Federal

Aguascalientes

Baja California

Baja California Sur

Campeche

Chiapas

Chihuahua

Coahuila

Colima

Durango

Guanajuato

Guerrero

Hidalgo

Jalisco

México

Michoacán

Morelos

Nayarit

Nuevo León

Oaxaca

Puebla

Querétaro

Quintana Roo

San Luis Potosí

Sinaloa

Sonora

Tabasco

Tamaulipas

Tlaxcala

Veracruz

Yucatán

Zacatecas

APPENDIX B GLOSSARY OF MRD/OPD TERMS

GLOSSARY OF OPD/MRD TERMS

"Accredited engineering program" means an engineering program accredited by the CEAB of CCPE, EAC of ABET or CACEI¹.

"CACEI" is the Consejo de Acreditación de la Enseñanza de la Ingeniería in the United Mexican States.

"CEAB" is the Canadian Engineering Accreditation Board of the Canadian Council of Professional Engineers.

"EAC of ABET" is the Engineering Accreditation Commission of the United States of America Accreditation Board for Engineering and Technology.

"<u>Jurisdiction</u>" means (i) a state or territorial engineering licensing Board in the United States of America, (ii) a provincial or territorial professional engineering association/ordre in Canada, and (iii) the Dirección General de Profesiones de la Secretaría de Educación Pública (SEP) and the state governments in the United Mexican States.

"Home Jurisdiction" means the designated jurisdiction in which an engineer holds a current licence and has practised for at least two years.

"<u>Host Jurisdiction</u>" means the jurisdiction to which an engineer applies for reciprocal recognition under the terms of this document.

"<u>Licensure</u>" means the process by which a person obtains the legal right to practice engineering and to use the titles P.E. or S.E. in the United States of America, P.Eng., ing., or Eng. in Canada, or Ing. and receives the Cédula Profesional in engineering in the United Mexican States.

"Substantially Equivalent Engineering Program" means a non-accredited engineering program which has been recognized by the CEAB of CCPE, EAC of ABET or CACEI.

"Temporary Licence" means a licence to practice engineering in the local jurisdiction in which it was issued for a specified and limited time period or for the duration of a specific project.

"<u>Verification of academic education</u>" is the review of educational documents to assess the level and quality of an applicant's engineering education. If required, the assessment may include interview(s) and examination(s).

APPENDIX C

CRITERIA TO ASSESS ENGINEERING EXPERIENCE

APPENDIX C

CRITERIA TO ASSESS ENGINEERING EXPERIENCE

Assessment of the acceptability of the work experience is based on the extent to which the applicant's experience includes all of the following areas, each of which is outlined in the following sections.

Application of Theory

The skilful application of theory is the hallmark of quality engineering work, and an applicant's experience shall *include completed projects and work* demonstrating meaningful participation *and leadership in three* or more of the following:

- analysis (for example: scope and operating conditions, feasibility assessment, safety and environmental issues, technology assessment, and economic assessment, etc.);
- design and synthesis (for example: functionality or product specification, component selection, integration of components and sub-systems into larger systems, reliability and maintenance factors, human and environmental aspects, and the societal implications of the product or process, etc);
- testing methods (for example: devising testing methodology and techniques, functional specification verification, and new product or technology commissioning and assessment, etc.); and,
- implementation methods (for example: technology application, engineering cost studies, optimization techniques, process flow and time studies, quality assurance implementation, cost/benefit analysis, safety and environmental issues and recommendations, and maintenance and replacement evaluation, etc.).

Practical Experience

Practical experience includes applicants understanding and applying the practical limitations of real systems in practice. Practical experience should include at least two of:

- site visits to existing engineering works, with opportunities to see equipment and systems in both operational and maintenance circumstances;
- application of equipment as part of the larger system, including, for example, the merits of reliability, the role of computer software, and understanding the end product or engineering work in relationship to the equipment;
- demonstrated understanding, through project work of the limitations of practical engineering and related human systems in achieving desired goals, including limitations of production methods, manufacturing tolerances, performance minima, maintenance philosophies, etc.; and,

 demonstrated experience in the components of the engineering process, including project definition and planning, workflow, scheduling, equipment wear-out and replacement scheduling, etc.

Management of Engineering

Management of engineering works includes the supervision of staff, project management, general exposure to an engineering business environment, and the management of technology. Engineering management includes:

- planning, from conception through to implementation. This includes: needs assessment, concept development, assessment of resources required, and assessment of impacts, including societal and project implementation;
- scheduling, from establishing interactions and constraints, developing activity or task schedules, and allocation of resources, through to the assessment of delay impacts and beyond to broader aspects, such as interactions with other projects and the marketplace;
- budgeting, including the development of preliminary and detailed budgets, identifying labour, materials and overhead, risk analysis, life-cycle analysis, and tracking;
- supervision, including leadership, professional conduct, organization of human resources, team building, and management of technology;
- teamwork, including knowledge of project requirements, complementary disciplines, and interaction with these disciplines at the design stage;
- project control, including co-ordination of work phases, tracking and monitoring costs and progress, and implementing changes to reflect actual progress and needs; and,
- risk-analysis related to operating equipment and system performance, product performance evaluation, and evaluation of societal and environmental impacts.

Communication Skills

Communication skills are an essential experience requirement. This applies to all areas of the work environment including communication with superiors, colleagues, regulators, clients, and the public and includes:

- preparation of written work, including day-to-day correspondence, record- keeping, and report writing;
- making oral reports or presentations to colleagues, supervisors, senior management, and an exposure to, or participation in, reports to clients and regulators; and,
- making public presentations.

Social Implications of Engineering

The overriding objective of the "social implications of engineering" requirement is to require experiences which show awareness of an engineer's professional responsibility to guard against conditions dangerous or threatening to life, limb, property, or the environment, and to call any such conditions to the attention of those responsible.

The social implications of engineering are an important aspect of the practice of engineering. The work environment experience should demonstrate:

- a recognition of the value and benefits of the engineering works to the public;
- an understanding of the safeguards required to protect the public and methods of mitigating adverse impacts;
- an understanding of the relationship between the engineering activity and the public;
- a demonstrated interest and involvement in the broader social implications of engineering;
- an appreciation of the role of regulatory bodies on the practice of engineering; and,
- an understanding of the health and safety of the workplace legislation in the host jurisdiction.

Span of Control for Responsible Charge

Span of control necessary to be in responsible charge of engineering work shall be such that the engineer:

- personally makes engineering decisions or reviews and approves proposed decisions prior to their implementation, whenever such decisions affect the health, safety or welfare of the public;
- judges the qualifications of technical specialists and the validity and applicability of their recommendations before such recommendations are incorporated into the work;

The term responsible charge relates to engineering decisions within the purview of engineering legislation and does not refer to control in a hierarchy of engineers. It does not refer to administrative and personnel management functions such as accounting, labour relations, performance standards marketing of a product or goal setting. Engineering decisions which must be made by and are the responsibility of the engineer in responsible charge are those decisions concerning permanent or temporary work which would create a hazard to health, safety and welfare and may include the following:

- selection of engineering alternatives to be investigated and comparison of alternatives for engineering works;
- selection or development of design standards or methods, and materials to be used;
- selection or development of techniques or methods of testing to be used in evaluating materials or completed works, either new or existing;
- review and evaluation of manufacturing, fabrication or construction methods or controls to be used and the evaluation of test results, materials and workmanship insofar as they affect the character and integrity of the completed work;

 development and control of operating and maintenance procedures at the project level or higher.

It is recommended that in the evaluation of responsible charge, the following should be considered: The professional engineer who signs engineering documents must be capable of answering questions asked by equally qualified engineers. The questions should be relevant to the engineering decisions made during the individual's participation in the project, and in enough detail to leave little question as to the engineer's technical knowledge of the work performed. Examples of questions to be answered by the engineer could relate to the criteria used for design, methods of analysis, methods of manufacture and construction, selection of materials and systems, economics of alternatives and environmental considerations.

APPENDIX D

NAME AND TYPE OF LICENCE BY LOCAL JURISDICTION

Appendix D Name and Type of Licence by Local Jurisdiction

In Canadian jurisdictions, the name and type of licence to be issued for the NAFTA MRD is as follows:

APEGBC- non-resident licence

OIQ – temporary licence (need collaborator)

APEGGA – foreign licencee

APEGS – temporary licence (member)

APEGM – temporary licence (for now)

PEO – temporary licence (not P.Eng., need collaborator, project specific)

APEPEI – licencee

NAPEGG - licencee

APEGNB – licencee

APENS – licence to practice foreign (Itp foreign)

APEGN – licence to practice

APEY - P.Eng.

In Texas, the name and type of licence to be issued for the NAFTA MRD is as follows:

Regular or Temporary Licence

In Mexican jurisdictions, the name and type of licence to be issued for the NAFTA MRD is as follows:

Licencia Temporal <Ingenieria (Discipline)>

APPENDIX E

LIST OF LOCAL JURISDICTIONS
IMPLEMENTING THE
NAFTA MRD OPD

Appendix E List of Local Jurisdictions Implementing the NAFTA MRD OPD

CANADA

Alberta

British Columbia

Manitoba

Newfoundland and Labrador

New Brunswick

Northwest Territories and Nunavut

Nova Scotia

Ontario

Prince Edward Island

Quebec

Saskatchewan

Yukon

THE UNITED STATES of AMERICA

Texas

ESTADOS UNIDOS MEXICANOS

Distrito Federal Aguascalientes Baja California Baja California Sur

Campeche
Chiapas
Chihuahua
Coahuila
Colima
Durango
Guanajuato
Guerrero
Hidalgo
Jalisco

Estado de México

Michoacán Morelos Nayarit Nuevo León Oaxaca

Puebla Querétaro

Quintana Roo

San Luis Potosí

Sinaloa Sonora Tabasco Tamaulipas Tlaxcala Veracruz Yucatán

Zacatecas

APPENDIX F

APPLICATION PROCESSES

APPENDIX F

APPLICATION PROCESSES

The host jurisdiction has ultimate responsibility to determine that the applicant's qualifications are acceptable.

Applicants shall complete and sign the application forms, and any other related declarations required by the host jurisdiction and should arrange for their submission and review in accordance with the requirements of the host jurisdiction.

There are alternate approaches for applicants to be assessed for meeting the approved criteria. These options are:

Option A

A host jurisdiction evaluates the applicant's qualifications according to the agreed criteria/procedures upon receipt of an application directly from the applicant. The host jurisdiction satisfies itself of the applicant's status with the home jurisdiction.

Option B

An applicant applies to the home jurisdiction for assessment. The home jurisdiction evaluates the applicant's qualifications according to the agreed criteria/procedures and provides to the host jurisdiction a declaration signed by the appropriate authority in the home jurisdiction confirming that the applicant has the requisite qualifications.

Option C

Options A and B both occur and the results of the assessment of qualifications are compared. When these is disagreement on the results of the assessment, the host jurisdiction will notify the home jurisdiction of the disagreement and the associated reasons. There will be a periodic review of the results of these assessments by a monitoring commission of the NAFTA Working Party.

Note: In order to evaluate the feasibility and acceptance of Options A and B, the parties agree that they will operate exclusively under Option C and establish a monitoring commission to monitor the process on an on-going basis for the initial 2 year period.