



**PROPOSAL TO IMPLEMENT AN
ELEVATOR MECHANIC CERTIFICATION PROGRAM**

DISCUSSION PAPER

November 24, 2010



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1. INTRODUCTION

The British Columbia Safety Authority wants to ensure that the workforce within the elevating devices industry is skilled and qualified to perform its duties to a high standard of safety and efficiency. To this end, the BC Safety Authority proposes to establish a formal Elevator Mechanic Certification Program.

Implementation is anticipated to take effect sometime in 2012. The Program would include mandatory qualifications and professional performance standards for elevator mechanics working in British Columbia. It would be administered by the BC Safety Authority which would examine and certify elevator mechanics as eligible to work in the Province.

Currently, no uniform standards exist to determine the qualifications of the approximately 1,000 individuals working as elevator mechanics in British Columbia, and no mechanism is in place to assess their capabilities. The proposed Elevator Mechanic Certification Program is designed to remedy that situation.

This Discussion Paper outlines the proposed Elevator Mechanic Certification Program and seeks your feedback on the proposal.



2. REASONS FOR PROPOSAL

Safety concerns are, as always, of paramount importance to the BC Safety Authority. The fatality of a British Columbia elevator mechanic in 2007 and the subsequent Coroner's recommendation that the BC Safety Authority adopt a certification program focused attention on this issue. Its importance has been heightened by recent BC Safety Authority audits which indicate a growing number of safety performance inconsistencies. These, in turn, have led to the need for the imposition of more severe enforcement measures, including the increasing use of monetary penalties. In 2010 to date, the BC Safety Authority has issued several monetary penalties; this is in contrast to the past two years in which no monetary penalties were issued.

Uniform standards do not currently exist for determining the qualifications and capabilities of elevator mechanics in British Columbia. This lack of requirement for demonstration of up-to-date knowledge lags behind the policies of other Canadian jurisdictions such as Ontario, Quebec and Nova Scotia, all of which require certification for elevator mechanics. Such demonstration of qualification and capability, together with continuous education and upgrading, is generally considered to constitute "Best Practice" in most professional fields.

The absence or inconsistency of standards has made it difficult for the BC Safety Authority and the industry in general to assess the qualifications and capabilities of individual elevator mechanics. It presents an additional challenge in terms of ensuring that education programs offered in British Columbia are equivalent and available regardless of employer; this issue, in particular, may create mobility issues for those individuals who may wish to work as elevator mechanics in other provinces.



3. EFFORTS TO DATE

This issue is not a new one in British Columbia. As early as 1999, a recommendation was made to establish such a program through regulation; however, other more pressing issues took priority at that time. Subsequent years have seen a number of relevant developments, including:

- a Coroner's recommendation following the 2007 death of a British Columbia elevator mechanic that "The BC Safety Authority adopt the proposed Elevator Mechanics Certification Program and require all elevator mechanics to be certified";
- increased compliance monitoring enforcement actions undertaken by the BC Safety Authority due to performance inconsistencies; and
- a drive for more consistency among Canadian jurisdictions.

In 2008, with the full support of the industry, the BC Safety Authority established the Elevator Mechanic Certification Committee to examine this issue and recommend how to ensure consistency in the industry with respect to the qualification and capabilities of elevator mechanics. The Committee, chaired by Hugh Richards, Elevating Devices Safety Officer with the BC Safety Authority, consisted of the following industry representatives:

- Corrie Archer, OTIS Elevator Company;
- Gordon Heard, International Union of Elevator Constructors;
- Rob Houston, ThyssenKrupp Elevator Corp.; and
- Vlad Zachata, Richmond Elevator Maintenance Ltd.

In February 2009, the Committee unanimously recommended establishment of an Elevator Mechanic Certification Program. The details of the Program outlined in this Discussion Paper are consistent with the Committee's recommendations.

In 2010, the BC Safety Authority continued to engage the industry in the development of an Elevator Mechanic (Class A) Industry Training and Education Program Outline. This Program Outline reflects the education criteria which would be required in order for an individual to be certified. It is intended as a guide for instructors, apprentices, employers, industry organization and government agencies. The Program Outline was prepared with the advice and guidance of the following industry representatives, supported by Daniel Royston of the BC Safety Authority:

- Corrie Archer, Otis Elevator Company;
- Michael Fletcher, International Union of Elevator Constructors;
- Shawn Hamilton, BC Rapid Transit Company;
- Heiner Marnet, City Elevator Ltd.;
- Don Sanchez, Garaventa Lift;
- Larry Schlabach, ThyssenKrupp Elevator Corp.;
- Nick White, Fujitec America Inc.; and
- Vlad Zachata, Richmond Elevator Maintenance Ltd.



4. PROPOSAL

The proposed Elevator Mechanic Certification Program defines a Certified Elevator Mechanic as:

Certified Elevator Mechanic

An individual holding a valid elevator mechanic certificate of qualification granted by the BC Safety Authority. A Certified Elevator Mechanic may, within the scope of their qualification, supervise other Mechanics-in-Training and sign off on Elevator Mechanic Passports to validate gained field work experience.

A. Components

The proposed Elevator Mechanic Certification Program contains the following components:

I. Safety Education Program (24 hours)

The Safety Education Program will be a prerequisite for anyone wishing to work as an elevator mechanic in British Columbia. A curriculum standard is currently being developed by the BC Safety Authority. It will address issues such as safe work practices, workplace hazards, Occupational Health and Safety regulations, etc. The Safety Education Program can be delivered by any approved training provider, e.g. employer, union, educational institution, etc., so long as the deliverer addresses the curriculum standard.

II. Industry Training and Education Program

As noted earlier, the Program Outline or curriculum standard for this component is currently being developed by the BC Safety Authority with the assistance of the industry. This Program Outline will identify core and other competencies required as well as required classroom hours and details of what will be involved in each area.

Most elevator mechanics currently working in British Columbia will already have completed education programs which meet or come close to meeting the standard being developed. Those existing education programs are outlined in the Appendix.

Once the Program Outline has been finalized, the content can be delivered by any approved training provider, e.g. employer, union, educational institution, etc. The training provider will evaluate an individual's knowledge through periodic written tests. Practical work applications will generally be evaluated through the use of an Elevator Mechanic Passport, signed off by supervising certified electrical mechanic(s) and employer(s).

III. Elevator Mechanic Passport

An Elevator Mechanic Passport is currently being developed by the BC Safety Authority. The Passport is a mechanism to track the competency of elevator mechanics throughout their apprenticeship (Mechanic-in-Training) period. Once individuals are certified as elevator



mechanics, the Passport will continue to be used to track any additional competencies gained.

IV. Registration as Mechanic-in-Training

There is currently no recognized apprenticeship program in the British Columbia elevating devices industry. The BC Safety Authority proposes to fill that gap with designation of an individual as a Mechanic-in-Training. This will enable the BC Safety Authority and the individuals themselves to track their progress toward certification in a systematic manner. A Mechanic-in-Training is defined as:

Mechanic-in-Training

An individual registered with the BC Safety Authority and working under the supervision of a Certified Elevator Mechanic performing field activities such as installing, altering, repairing, maintaining or testing elevating devices.

V. Certification Examination

After completion of the Industry Training and Education Program and in addition to the periodic and final tests conducted by training providers as part of that process, the BC Safety Authority will review an individual's Passport and conduct a certification examination. This examination will focus primarily on practical knowledge of the codes, regulations and standards applicable in British Columbia. The examination is designed to ensure that a Mechanic-in-Training meets all requirements to become a Certified Elevator Mechanic. A minimum score of 70% will be required to achieve certification.

VI. Certification Maintenance

Certified Elevator Mechanics will be required to renew their certification with the BC Safety Authority every three years in order to ensure that:

- they remain current with regulations, codes, standards, technology and other safety requirements;
- additional skills and competencies gained are systematically tracked, thereby enabling upgrades of the individual's scope of work; and
- personal and contact information are up to date.

B. Transition Plan

The role of the knowledgeable and experienced elevator mechanics currently working in British Columbia is critical to the success of transition to a formal certification program. It is these individuals who will be supervising the efforts of less experienced workers and newcomers to the industry, signing off on Elevator Mechanic Passports, and generally helping to ensure that the system operates safely and efficiently.

In recognition of their importance to the smooth operation of the elevating devices safety system, the BC Safety Authority is making it a priority to ensure that individuals currently working as elevator mechanics in British Columbia remain able to do so while the elements of



the Certification Program are being implemented. Everything possible will be done to make transition to the new Program both easy and cost-efficient. To that end, the proposed transition plan includes a “grandparenting” process for current elevator mechanics who meet certain criteria.

Grandparenting

An individual currently working as an elevator mechanic in British Columbia can apply – within one year of the Program coming into effect – to be “grandparented” as a Certified Elevator Mechanic. “Grandparenting” can occur in one of two ways:

1. Experience-based: An individual must be able to demonstrate at least 15 of the preceding 20 years hands-on experience as an elevator mechanic; or
2. Training and experience-based: An individual must be able to demonstrate:
 - at least four years of hands-on experience; and
 - completion of a recognized Industry Training and Education Program.

“Hands-on” experience

“Hands-on” experience may also be referred to as field-work experience or “wrench time”. It is defined as: tracked and validated time spent by an individual working in the capacity of an elevator mechanic performing field activities such as installing, altering, repairing, maintaining or testing elevating devices.

Variations from these two options may be made by the BC Safety Authority on a case-by-case basis, e.g. to accommodate the situation of someone coming to British Columbia from outside Canada, to take supervisory experience into account, etc.

In addition, anyone wishing to be “grandparented” as a Certified Elevator Mechanic will be required:

- to complete the 24-hour Safety Education Program; and
- to pass the certification examination administered by BC Safety Authority.

Individuals currently working as elevator mechanics in British Columbia will be authorized to continue work for one year from the implementation date of the new Program, i.e., until the corresponding date in 2013. During that year, they will be expected to make an application for “grandparenting” to the BC Safety Authority, to take the 24-hour Safety Education Program if they have not already done so, and to take the BC Safety Authority certification examination. Flexibility will be provided on a case-by-case basis should an applicant require additional time to take the examination.

Current employees ineligible for grandparenting

Current employees of licensed contractors who do not meet the training and/or experience requirements to be “grandparented” will be able to continue to work for one year from the implementation of the new Program, provided that:



- within *three months* of Program implementation, they:
 - complete a 24-hour Safety Education Program; and
 - register with the BC Safety Authority as a Mechanic-in-Training

and

- following registration and within *one year* of Program implementation, they:
 - enroll in an Industry Training and Education Program.

C. Program Operation

The details provided below focus primarily on the largest classification of elevator mechanics in British Columbia: Certified Elevator Mechanic – Class A.

Certified Elevator Mechanic – Class A

Any individual who holds a Certified Elevator Mechanic – Class A certification may, without supervision, construct, install, alter, repair, maintain or test any elevating device except a passenger ropeway or an amusement ride, provided the individual has documented field work experience on that class of elevating device.

While the broad elements of the proposed Program will be the same for all elevator mechanics, details may vary slightly for other mechanic classifications. Those additional details will be available by the time of planned consultation meetings in February 2011.

I Registration as a Mechanic-in-Training

An individual new to the elevating industry who wishes to become a Certified Elevator Mechanic in British Columbia will be required to register as a Mechanic-in-Training within three months of employment. That individual will be required to meet the following criteria:

- have completed Grade 12 or equivalent education;
- have completed the 24-hour Safety Education Program before commencing work on a worksite;
- be employed by an elevating contractor licensed by the BC Safety Authority; and
- agree to enroll within one year of employment in a recognized Industry Training and Education Program.

II Certification - Becoming a Certified Elevator Mechanic

Mechanics-in-Training applying to become Certified Elevator Mechanics will be required to have:

- kept their Elevator Mechanic Passport current;
- successfully completed a recognized Industry Training and Education Program within seven years of enrollment;
- at least four years of hands-on experience, of which one year is in an area of expertise; and
- successfully completed the certification examination administered by the BC Safety Authority.



III. Maintaining Certification

Certified Elevator Mechanics will be required to renew their certificate of qualification with the BC Safety Authority every three years by demonstrating that they have:

- kept their Elevator Mechanic Passport current;
- worked unsupervised only within the scope of their qualifications as documented in the Elevator Mechanic Passport;
- worked only under the supervision of a Certified Elevator Mechanic when performing specific field activities outside the scope of their qualifications;
- supervised and signed off on Elevator Mechanic Passports only within the scope of their qualifications; and
- kept current with technology, safety requirements, regulations, codes and standards by completing a minimum of 24 hours of continuing education courses as approved by the BC Safety Authority.



5. ESTIMATED COST
(further details to be provided in advance of consultation meetings)

The Elevator Mechanic Certification Program will be operated by the BC Safety Authority on a strict cost-recovery basis. Every effort will be made to keep these costs as low as possible through effective and efficient administration of the Program. At this time, the BC Safety Authority is in the process of developing the most accurate possible estimated Program costs. Those estimates will be provided in advance of consultation meetings planned to take place throughout the province in February 2011.



6. OPPORTUNITIES FOR INPUT

The BC Safety Authority welcomes your views on any element of this proposed program. In particular, we are interested in knowing:

- (1) whether you support the idea of an Elevator Mechanic Certification Program;
- (2) your views on the model proposed by the BC Safety Authority, including whether any of the proposed details present particular difficulties or whether any important elements have been overlooked; and
- (3) your suggestions for improvement of the proposal.

There are a variety of ways in which you can provide input:

- (1) A **feedback form** is available online for your quick response:
http://www.safetyauthority.ca/form/edmcpc_feedback
- (2) If you prefer to use **another format**, please send your comments by email to:
Elevator.Mechanic.Certification@safetyauthority.ca or by post to:
BC Safety Authority
505 – 6th Street, Suite 200
New Westminster, BC V3L 0E1
Attn: Meryl Claudio
- (3) **Consultation meetings** will be held in February 2011 in locations throughout the province. A list of specific dates and locations will be distributed and provided on the BC Safety Authority website in mid-January. If at all possible, we encourage you to attend and express your views in person.

We appreciate your taking the time to consider this proposal and hope that you will provide us with the benefit of your views. **Input should be provided no later than close of business day on Friday, December 31, 2010.**



**APPENDIX:
EXISTING EDUCATION PROGRAMS IN RELATION TO THE STANDARD
PROPOSED FOR THE INDUSTRY TRAINING AND EDUCATION PROGRAM**

Accepted as equivalent:

Canadian Elevator Industry Educational Program (CEIEP):

An industry educational program designed and developed collaboratively between signatory employers, manufacturers and the International Union of Elevator Constructors (IUEC). The program is offered and delivered by the IUEC. To date, this program is being delivered consistently in all ten provinces and three territories of Canada.

Elevating Devices Mechanic Program and Continuing Education Program:

An industry education program designed, developed and offered by the Elevating Devices Training Academy in association with Quality Allied Elevator. These programs are accredited by the Technical Standards and Safety Authority (TSSA) in the Province of Ontario; the training provider is accredited by the Ontario Ministry of Training, Colleges and Universities (MTCU). In addition, the programs are recognized as an equivalent education program for an Elevating Device Mechanic Certificate of Competency (Class A or B) under the Nova Scotia *Elevators and Lifts Act* and General Regulations.

Must be supplemented by additional courses:

Certified Elevator Technician (CET) program:

An industry education program designed, developed and offered by the National Association of Elevator Contractors. The CET program would need to be supplemented by additional courses as stipulated by the BC Safety Authority.

Note: All programs will be evaluated on an ongoing basis as needs change.