



BC Association for
CRANE SAFETY

Crane Operator Qualification

INDUSTRY WORKSHOP REPORT

TOWER CRANE TASK GROUP MEETING #5

*WorkSafeBC,
Richmond, BC
March 16th, 2006*

TOWER CRANE TASK GROUP MEETING #5

*Richmond, BC
March 16th 2006*

In Attendance:

Russ Dowdeswell	Log Home Builder's Association
Val Coupal	Coupal Climbing Cranes Ltd.
Fraser Cocks	BCACS (Executive Director)
Don Nelson	WorkSafeBC
Kathy Sheppard	WorkSafeBC (Work Group Coordinator)
Lee Middleton	Fulford Harbour Consulting (Facilitator)

Background

This workshop was the fifth in a series of task group workshops for tower and self-erect crane industry stakeholders. These stakeholders are working toward a competency based certification framework for tower crane operators in BC. The BC Association for Crane Safety is facilitating this process and providing the administrative support needed for industry to lead this change. The competency based certification framework will be used by WorkSafeBC as the foundation for a crane safety regulation to be enacted in July of 2007.

The first two workshops focused on defining the skills standards for tower crane operators. Attention was paid to skills standards first because having these agreed to by industry is important for these reasons:

1. Skills standards define the assessment of a competent operator.
2. Skills standards show what different levels of operator require to do their job.
3. Skills standards lay out a training and career pathway for operators.

Together with the industry supported operator certification structure, which was the focus of the third workshop, the skills standard outlines the framework for a competency based operator standard as well as the training required to get new operators to the required competency standard. The framework also shows what training and experience existing operators need to be able to move to higher certifications or to move within the industry.

The fourth workshop built on this work and described an approach to the 'business model' that could be used to coordinate the development, implementation and ongoing management of an operator certification scheme in the Province.

The industry decided on goals for a crane certification business model. These were combined with the goals expressed by the Boom Truck and Mobile Crane task groups into options for a crane certification business model. Basically the business model options centred around the role the Association would play in the ongoing operation of crane certification relative to the role three government agencies would play. The three agencies were: WorkSafeBC as the enforcement body for competency based certification, the Industry Training Authority as the standards and certification body and the Safety Authority of BC who run a safety certifications database and licensing scheme for some parts of the construction industry.

Following this meeting the Association embarked on an extensive fact finding and stakeholder consultation exercise to determine what would be a feasible business model for crane certification in BC. The results of these consultations were presented at Task Group meeting #5, which in the end, resulted in the presentation of the business model in its simplest form.

Workshop Goals

The tower crane and self erect operator occupation spans a number of industries and a variety of equipment types including tower cranes and self erect cranes with a wide range of lifting capacities, and built in safety limiting devices. In developing a certification structure it is important to strike a balance between certification requirements that ensure a safe and competent level of operation and one that does not impose an inappropriate number and/or level of competencies for the different levels of required work. The task group was quite clear that they wanted the certification structure to mirror the natural progression of how a tower crane operator is trained in the industry, and of how self-erect crane owners train the client's designated operator.

Refined certification structure

In the third and fourth workshop we refined the certification structure to strike the right balance between certification complication and the operational realities of the industry. In this, the fifth workshop, we finalise the certification structure and re-validate it as being appropriate for industry use. The redrawn certification diagram is attached at the end of this document.

Business models

Review the proposed business model that emerged from industry consultation, including:

Funding options

Describe leveraging WorkSafeBC funds and existing government industry training funds.

Tracking and documentation

Documented proof of competence is proposed to be the Industry Training Authority's certificate of qualification. A Logbook will be used to track competencies mastered on the job and through theory learning.

Terminology

The work group will decide on a fixed terminology to be used by the crane certification scheme in the Province.

Certification Structure

During the workshop the certification structure developed was validated with one change. Self-erect crane operators now write the crane foundation assessment as do all other operators in the industry. Passing this assessment provides them with a crane certification Logbook and limited use or trainee certification. To operate the self-erect crane they must have reasonably direct access to a certified operator (ideally within the same company). In order to receive full certification they must pass the practical assessment.

Task group members felt the certification structure was sufficiently developed to move onto the next step – definition of equipment types including those to which the regulation will not apply.

One additional item of discussion was the establishment of an expanded rigger foundational program which could be used not only as an entry into the trade, but also as a course to teach specialised rigging skills in industries, such as the ICI sector that require these. The foundational rigging course would bridge into the crane foundation course.

Appendix A contains a diagram of the certification structure proposed for tower crane operators.

Limited Use

One aspect of the certification model that was clarified by the stakeholders was the 'limited use' crane certification. As discussed above, this certification will apply to self-erect crane operators.

Discussion centred on the need of all operators using cranes to have the right technical background to do their jobs. Stakeholders felt the technical theory training required for the most basic crane certification is already stripped back to the essential core competencies an operator needs to do his or her job.

Reducing these core technical competencies further to accommodate a limited use certification was felt to unacceptably undermine what crane certification is trying to accomplish – namely safety.

Thus, the limited use certification will require operators to have demonstrated competence in crane theory by passing the crane foundation written assessment. Limited use operators will not have to pass the practical assessment of competency, but they will need to have reasonable access to a certified operator.

In operations where many individuals use a crane from time to time, but not as a main part of their job, these individuals will all need to pass the crane theory assessment in order to get their operator passbook. This will give them their limited use certification in conjunction with a certified operator who endorses their passbook for the specific limited crane use required on that worksite.

Limited use qualification is portable between worksites provided each site allows access to the certified operator by the limited use operator.

Business models

The groups divided the business model needed to run, start and run the competency certification framework for crane operation into three phases:

- *Development* – design and development of assessment tools and competency certification scheme.
- *Start up* – assessment and certification of incumbent operators and promotion of the scheme to stakeholders as well as management of stakeholder interests in a viable, healthy crane industry.
- *Sustaining* – ongoing operation of the certification scheme, assessment of new trainees and updating competency requirements.

The results of consultation with industry and government agencies were described, including operational and privacy limitations around tracking of individual operators – in the previous workshop industry identified this as a feature of their desired business model for the operation.

The industry reworked the business model to come up with this streamlined, integrated approach to managing crane certification and operator safety:

Business Model main points

- 1 **Use Industry Training Authority support to issue and develop credentials:** Program standards funding supports development of the competency and assessment standards for operators.
- 2 **Logbook is the proof of competency:** In order for the certification structure to be of best value a Logbook will be developed by the

Association through ITA support to track operator competence and experience. The logbook was described as a passport with these features:

- Shows endorsement equipment types
- Tracks competencies
- Records work experiences, not simply hours
- Records work history to function as a resume and allow employers to follow up with past employers on work history
- Electronic record also held by the ITA in case the paper version is lost
- Provides a skills development pathway for a career in the industry

- 3 **WorkSafeBC tracks improper operation:** The safety record of individual operators is important to the industry and the stakeholders felt that working closely with WorkSafeBC to stay on top of safety issues would be the best way to address improper or unsafe operation. The Association would be in a position to assist companies with safety compliance, accident investigation and updating training standards to 'train out' safety issues in future operators.
- 4 **Association develops a communication plan:** To reach the many stakeholders in the industry the Association needs to develop a plan to inform people about the regulation, certification scheme and assessment. Use of trade magazines, web sites and inserts in notification of assessment were suggested.
- 5 **Certification happens once:** Renewal of certification as above is every 3 to 5 years and is a 'certification formality' if the operator has evidence of competent crane operation in that time period.
- 6 **There is a fee for assessment:** A fee was felt to formalise the commitment to the assessment to minimise missed appointments and frivolous use of assessment.
- 7 **Written theory test important:** In order to operate a crane in BC everyone must pass the written theory test associated with the foundational competencies. Successfully passing this assessment allows the logbook (passport) to be issued – exceptions are those operators who already hold a ticket of qualification. To be fully certified a practical assessment of competence will be required prior to issuing an endorsement in the passport.

Funding

The task group stakeholders formally endorsed applying to the Industry Training Authority for funds to develop the program standards on a competency basis for crane operators.

The crane certification scheme outlined by industry requires very well developed practical assessments and logbooks/ passports. Industry Training Authority support is required for these to be developed.

Administration of practical assessments to existing operators (challenging the certificate in ITA terms) will be co-funded by WorkSafeBC and the ITA. This funding arrangement is being developed.

Application deadline for this cycle of funding is April 10th 2006 and will require broad evidence of industry support, both through letters of support and evidence of stakeholder engagement in the process. Attending the task group meetings is a significant commitment and powerfully demonstrates industry support in development of the certification scheme – letters of support will make an already powerful level of industry commitment even stronger.

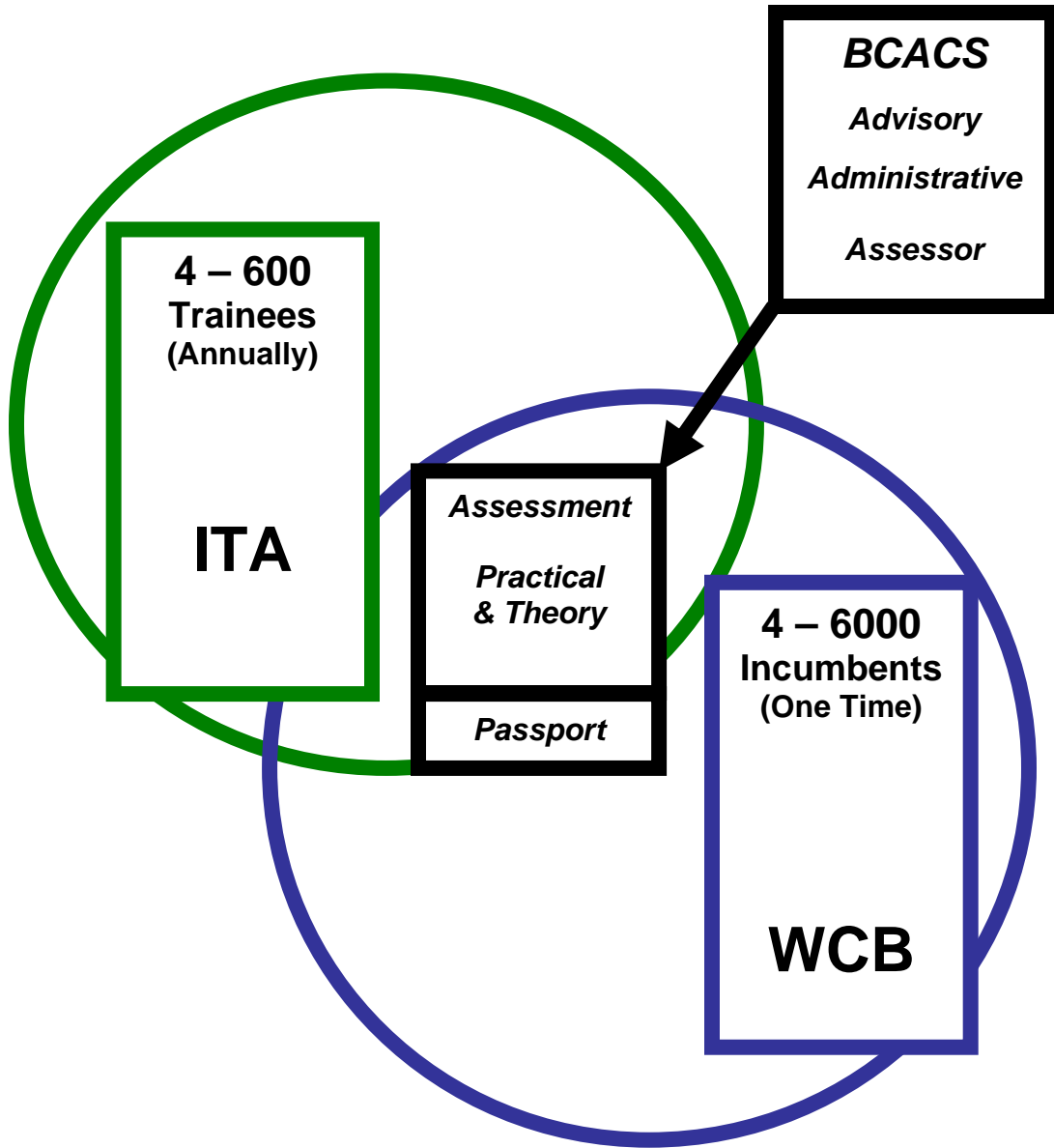
Business model

The table below summarises the business model proposed by the task group to develop and run the crane certification scheme. The role by industry through the BC Association for Crane Safety becomes one of setting training standards, running assessment of new and existing operators and generally helping ensure the health of the industry through promotion of a competent workforce.

March 15/16 Business model

	WorkSafeBC	BC Safety Authority	Industry Training Authority	Association for Crane Safety (Industry)
<i>Function</i>				
Set operator competency standards			Fund development of these.	Yes
Certify training			Yes – certify training programs, including foundation training programs	Advise on training approval
Develop assessment tools			Fund development of tools	Yes – in close consultation with SMEs
Conduct Assessments			Results sent to ITA	Yes
Record assessment results and issue qualifications			Yes	Recommend award on basis of standards met
Issue certificates of competence			Yes	
Track Safety violations	Investigate and enforce regulatory infractions			Engage with WorkSafe to pursue improper operation
Update Provincial Operator database			The AIMS (training) database becomes the record of operators in the Province	
Enforce Safety infractions	Yes			
Arbitrate Safety infractions	Yes			
Promote and facilitate training opportunities				Yes

March 2006 Business Model Diagram



Next steps

The next task group meeting will be called once the Association has developed a more detailed business plan and assessment guidelines. This will likely be presented to one combined task group for the Lower Mainland / Vancouver area as well as in the other areas of the province for check in and validation.

With the work of all task groups we will then be in a position to draft the crane safety certification framework for presentation to stakeholders around the Province prior to the May WCB public hearing.

At about this time development funding should be in place for the development of assessment tools and log books / passports as well as arrangements to pilot test training.

Progressive Endorsement Crane Certification in BC

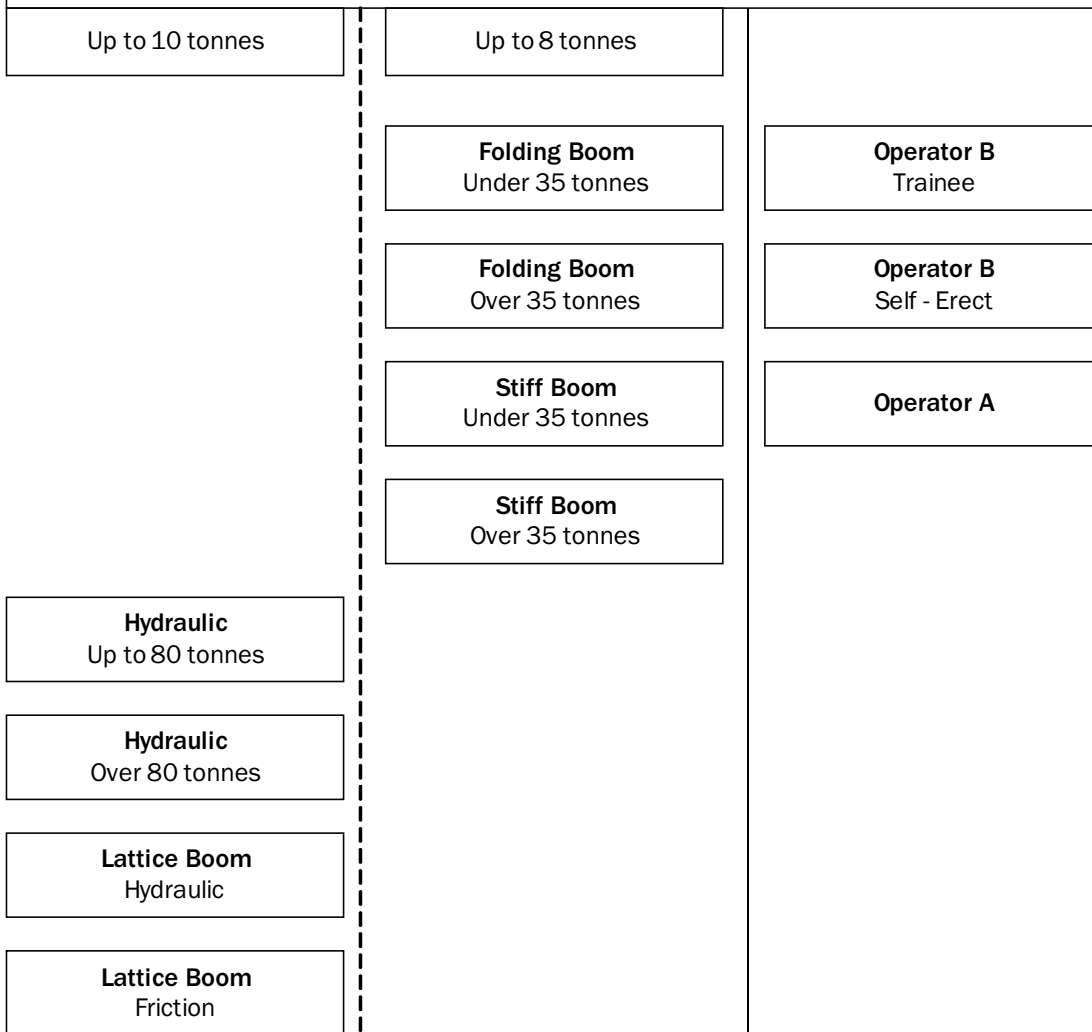
Mobile

Boom

**Tower &
Self - Erect**

Rigger

Foundation Crane Certification



Notes
 All existing operators may challenge certification
 All operators will need equipment specific training provided by employer on job mentorship when moving between equipment types

Tower Crane Operator Training & Assessment

