

**BC Association for  
CRANE SAFETY**

# **Crane Operator Qualification**

**INDUSTRY WORKSHOP REPORT**

**MOBILE, BOOM AND TOWER CRANE TASK GROUPS  
JOINT MEETING #2  
“DEVELOPING THE TOOLS”**

*CLRA,  
New Westminster, BC  
Sept. 29<sup>th</sup>, 2006*

# JOINT CRANE TASK GROUP MEETING

*New West, BC  
Sept. 29<sup>th</sup> 2006*

## **In Attendance:**

Dan Coulter – multi – Cascade Hand Crafted Log Home Ltd.

Kathy Sheppard — tower / chair - WCB

Carolyn Hule – boom – Phoenix Truck & Crane

Russ Dowdeswell – tower – Log Building Industry of BC

Ron Karras – tower – Micron Construction

Joe Bishop – tower - Operator

Mike Maitland – mobile – Sterling Crane

Wayne Fettback – boom – Western Pacific Enterprises

Dominic Verhelst – mobile - TeckCominco

Greg Starchuk – tower – Eagle West

Jim Barkman – boom / chair – Eagle West

Larry Sinclair – mobile – BC Marine & Pile Driving

Brian Fehr – mobile – Vanderhoof – BID Construction

Bob MacMillan – mobile – GWIL - Operator

Peter Miller – multi – JJM Construction

Howard Muir– mobile – PG – Caribou Pulp

Don Nelson - WCB

Russel Robertson – ITA (afternoon session)

Garry Bancarz – boom – Convoy Supply Ltd.

Rob Magee – mobile – GWIL – chair of BCACS board

Daryle Chafe – boom – Phoenix Truck & Crane

Gordon Lindberg – multi - OEJATP

Bill Sandhu – boom – B&B Truss

Michael Pelletier – multi – Emil Anderson Group

Fraser Cocks – BCACS Executive Director

Lee Middleton – facilitator – Fulford Harbour Consulting Ltd.

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## **Background**

This workshop was the eighth in a series of task group workshops for crane industry stakeholders. These stakeholders are working toward a competency based, licensing and certification framework for mobile, boom and tower crane operators in BC. The BC Association for Crane Safety (BCACS) 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 enforced in July of 2007.

This workshop follows on a key moment in the life of crane competency certification in the Province.

1. The Crane ‘Competency Regulation’ had just been announced by the WCB on Tuesday September 6<sup>th</sup> enshrining proof of operator competence into the Occupational Health and Safety Regulations. Industry requested clarification to and adjustment of the guideline supporting this regulation at the first combined task group meeting on September 8<sup>th</sup>.

2. The Crane Industry's stakeholders had a chance to further review and comment on the proposed training programs for new operators to meet the competency standards laid out by industry in early 2006. The ITA Board approved in late July the three applications submitted by the BC Association for Crane Safety for training program standard revision. These approvals essentially aligned the training for crane operators with the competency certification scheme outlined in the regulations. Industry requested adjustment to these applications to better align with the regulation at the first combined task group meeting on September 8<sup>th</sup> and these adjustments were finalized prior to this second combined task group meeting.

Through stakeholder consultation the BCACS determined the need for a workshop to sum up progress to date, and gain a final validation of the competency certification and training scheme from industry before proceeding with the development of the assessment tools and training pieces that are now required. The first combined task group workshop achieved this goal and generated a number of business items for the BCACS as the Association moved to act on industry's wishes. The goals of the workshop are outlined below.

### **Workshop Goals**

The following goals were outlined at the start of the workshop, and were essentially a clarification and industry endorsement of decisions relating to the first combined task group meeting:

1. Finalise the certification scheme and how it fits with the training proposed.
2. Explain the assessment process proposed for existing operators.
3. Clarify the operation of the certification scheme and regulation.
4. Get answers on specific points prior to development of assessments:

- a. Limited Use / Restricted Use
  - b. Role of the BCACS in the management and implementation of the regulation in BC through start-up and ongoing operation of the regulation
5. Gain an endorsement by industry of the way forward through:
- a. development of 'capstone' assessment tools with WCB funding
  - b. development of training resources and interim assessment tools with ITA funding

## **Endorsement of Competency Certification**

### **Issue:**

Task groups have expressed reservation at the hour requirements to achieve Certificates of Qualification. Various hour requirements make equivalency with Regulation competency requirements and training schemes difficult. Additionally, the industry has felt Self-Erect cranes needed a training program in order to equip the Self-Erect industry with the tools it needs to successfully work with the Regulation in 2007.

### **Decision:**

**Mobile and Boom:** Remove required hours from the Qualification achievement criteria. Align the competency requirements for the Regulation with the final training standard. In the case of Boom cranes adjust the tonnage threshold between the certification levels in better accord with industry realities.

**Tower:** Extend rigging requirement by 400 hours to 500 hours and build in a bridging process in regard rigging experience between the other operator classifications.

Develop a training and certification program for Self-Erect crane operators in time for the enactment of the regulation in July 2007.

**Action:**

**Mobile and Boom:** Submit modification letter to the ITA Board to remove hours from Program Standard. Develop Assessment and Training resources harmonized across both the Regulation and the Qualification. Proof of competence under the Regulation will be equivalent to the Certificate of Qualification.

**Tower:** Submit modification letter to the ITA Board to adjust rigging hours requirement in accord with the draft Program Profile approved by the Tower Crane sub-committee September 29<sup>th</sup>.

Submit a letter of intent to the ITA by October 22<sup>nd</sup> to develop a Self-Erect training program to the outline discussed at the Tower and Self-Erect crane sub committee September 29<sup>th</sup>.

**Comment:**

This decision by industry requires development of an extremely high quality practical assessment of competence for existing operators. This same assessment would function as the 'capstone' assessment for trainees to receive their Certificate of Qualification. There will be slight variations between assessments for each group, with each sub committee developing assessment tools to best meet the specific needs of that group.

Work has been underway for some months to develop these assessment tools and a 'best practice' format for the capstone crane assessments has been developed through consultation with industry and governments/ trainers in Alberta and Ontario. Decisions relating to this work follow.

## **Assessment of Operators**

### **Review Item:**

A process for assessing existing operators was outlined which incorporated best practice learning from other jurisdictions. In brief the process is:

- Applied test of load chart comprehension
- Applied test of hand signals
- Integrated theory practical test of competent crane operation

Other jurisdictions have found that specific focus must be placed on load chart comprehension as a critical competency area that crane operators who do not have the required competence may 'squeak by' where load charts are integrated into a comprehensive assessment.

### **Action:**

Industry endorses best practice use of lessons learned from other jurisdictions and supports development of assessment tools along the approach outlined.

Industry offers the following direction:

- Integrate the load chart test into an overall assessment, but have it scored individually
- Integrate rigging into the hand signal component and have this scored individually
- Provide practice assessments which operators are strongly encouraged to do prior to booking practical assessments. In this way frivolous assessment use is avoided by those operators who may not have the competence to pass the load chart component of the assessment

- Provide learning materials to allow operators to come up to competence standard on their own initiative prior to assessment

**Issues:**

The suggestion was put on the table that existing operators simply provide proof from an employer (even if that is themselves in the case of self employed operators) that they are employed to operate a crane prior to booking a practical assessment.

**Action:**

After discussion that in balance supported this suggestion and it was decided to table formal decision making on this item until a future meeting when the industry will focus on validation of assessment tools.

## **Requested modifications to Regulation Guidelines**

**Issue:**

The regulation requires 'learners' (a catch all phrase to cover all operators not yet certified competent under terms of the regulation) to operate under direct supervision. Industry strongly felt this situation would require paying two operators for the length of the training or pre-certification period adding tens of thousands of dollars to the cost of certifying operators.

In response to these concerns outlined at the September 8<sup>th</sup> meeting, Don Nelson of WorkSafeBC, provided modified regulation guidelines that specify three levels of Operator, each licensed progressively to perform lifts of varying risk and complexity with corresponding reduced supervision requirements the higher a level of license held.

The draft guideline is contained in Appendix A to this report.

**Decision:**

Industry endorsed the guideline with referencing Level One, Two and Three Operators and the described relationship between these levels, supervision requirements and lift type classifications (routine, significant and high risk).

**Action:**

Industry requests WorkSafeBC revise the Regulation guideline to follow the form tabled by Don Nelson at the September 29<sup>th</sup> meeting.

**Comment:**

Industry was very pleased with the guideline modifications tabled. They felt they were enforceable, meaningful and reliable across all sectors of the industry and addressed concerns about duplication of employer due diligence and the differing context of crane use for industrial operations. See discussion below on Limited Use.

**Limited Use/ Restricted Use Decision****Issue:**

Limited Use and Restricted Use are grey areas that need clarification. Who can use this type of certificate? Is this a loophole that undermines the certification scheme?

The revised guideline submitted by Don Nelson at the September 28<sup>th</sup> meeting fully addressed this issue. The use of Level One, Two and Three Operator classifications allows industry to comply with the regulation through using a license class of operator that works with their hoisting requirements.

**Decision:** Industry endorsed the proposed guideline's focus on operator levels as a means of successfully addressing an industry need for limited use or

restricted use crane operations while ensuring compliance with safety regulations.

**Action:**

Request WorkSafeBC adopt the Regulation Guideline as tabled by Don Nelson at the September 29<sup>th</sup> meeting and further understanding of the 'Operator Level' classifications contained in this proposal with industry users.

**Comment:**

Clarifying the limited use / restricted use license, combined with the proposal that industry certify internal assessors for Level One and Two operator assessment means that the Regulation works well to support safe crane operation in industry.

**Business models: Role of the Association in Assessment**

**Issue:**

Under a competency based system an agency connected with industry must assess existing and new operators. Who will do this? Who will track assessment? Who will coordinate learning materials and preparatory exams?

**Decision:**

The BC Association for Crane Safety is the logical choice to conduct or contract this work. Industry requests the BCACS to perform the central coordinating role in the certification scheme, administering assessments and registering operators. Industry prefers a business model where the Association maintains oversight of this work but contracts out the day by day operational duties such as database maintenance and assessment of operators.

**Action:**

Industry requests the BCACS prepare business plan options for both the start up and the ongoing operation of the certification scheme. The BCACS is directed to

pursue the proposal by the BC Safety Authority to administer registration and testing of operators on a fee for service basis, seek further costing detail and clarification of the Safety Authority's role in contracting assessors.

### **Next steps**

The next task group meeting is tentatively scheduled for November 1<sup>st</sup> at the CLRA in New Westminster, BC.

Main items to be covered are:

- Overview and validation of competency assessments
- Development of assessment procedure for industrial sites
- Membership and structure of the BCACS for ongoing governance of the organization and procedure for adjusting industry standards (ongoing)
- Business model of the BCACS and role in certification
- Steps in development of Common Core and Mobile Crane resources.

Following the next meeting the BCACS with Industry's blessing will embark upon development of all required tools and resources to implement the crane regulation in July 2007 through support of the funding partners, who are:

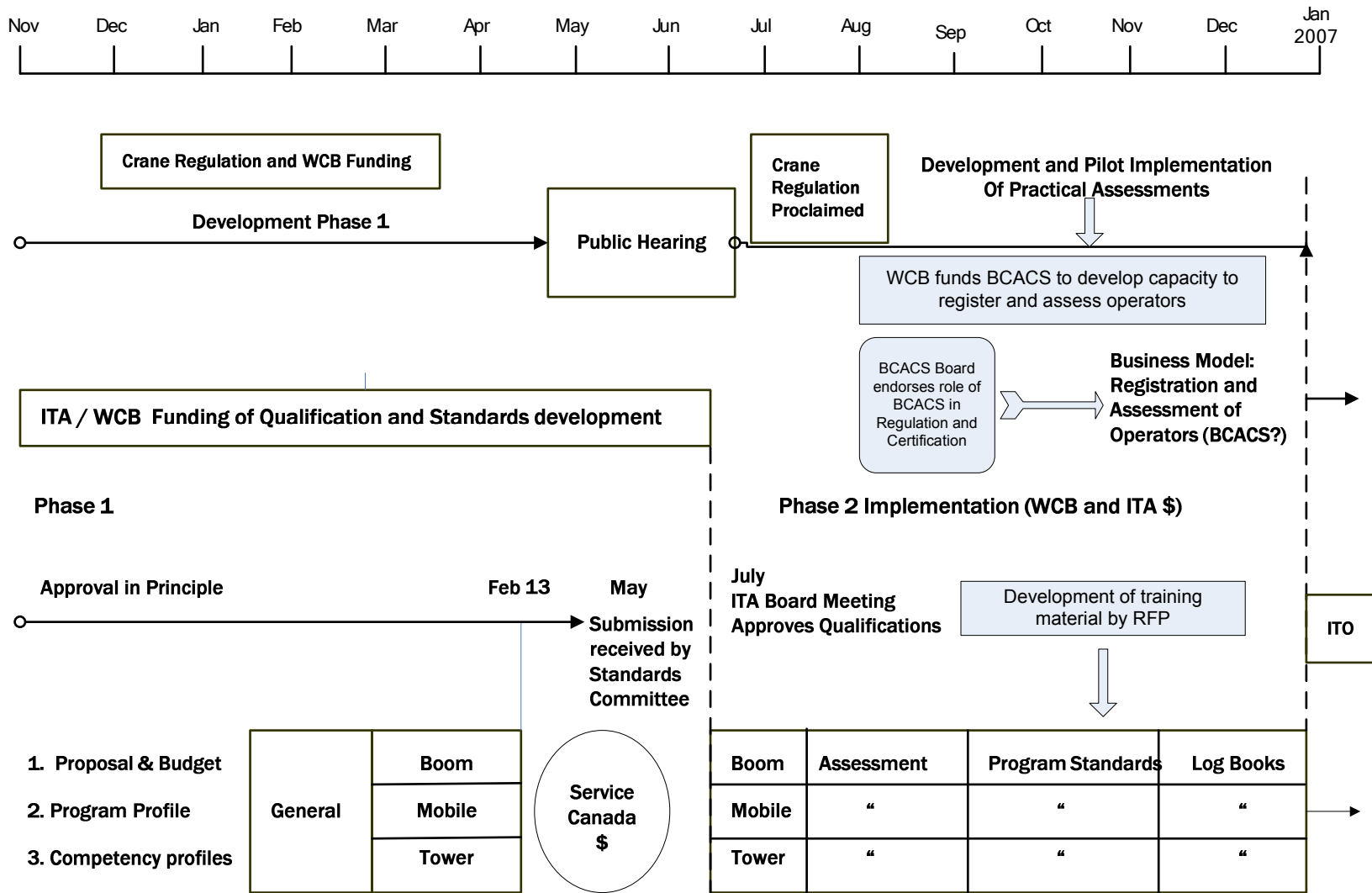
- WorkSafeBC
- Industry Training Authority
- Service Canada
- Industry in kind contribution

**Appendix A – Draft Operator Certification Guideline (attached)**

## **Appendix B – Diagrams**

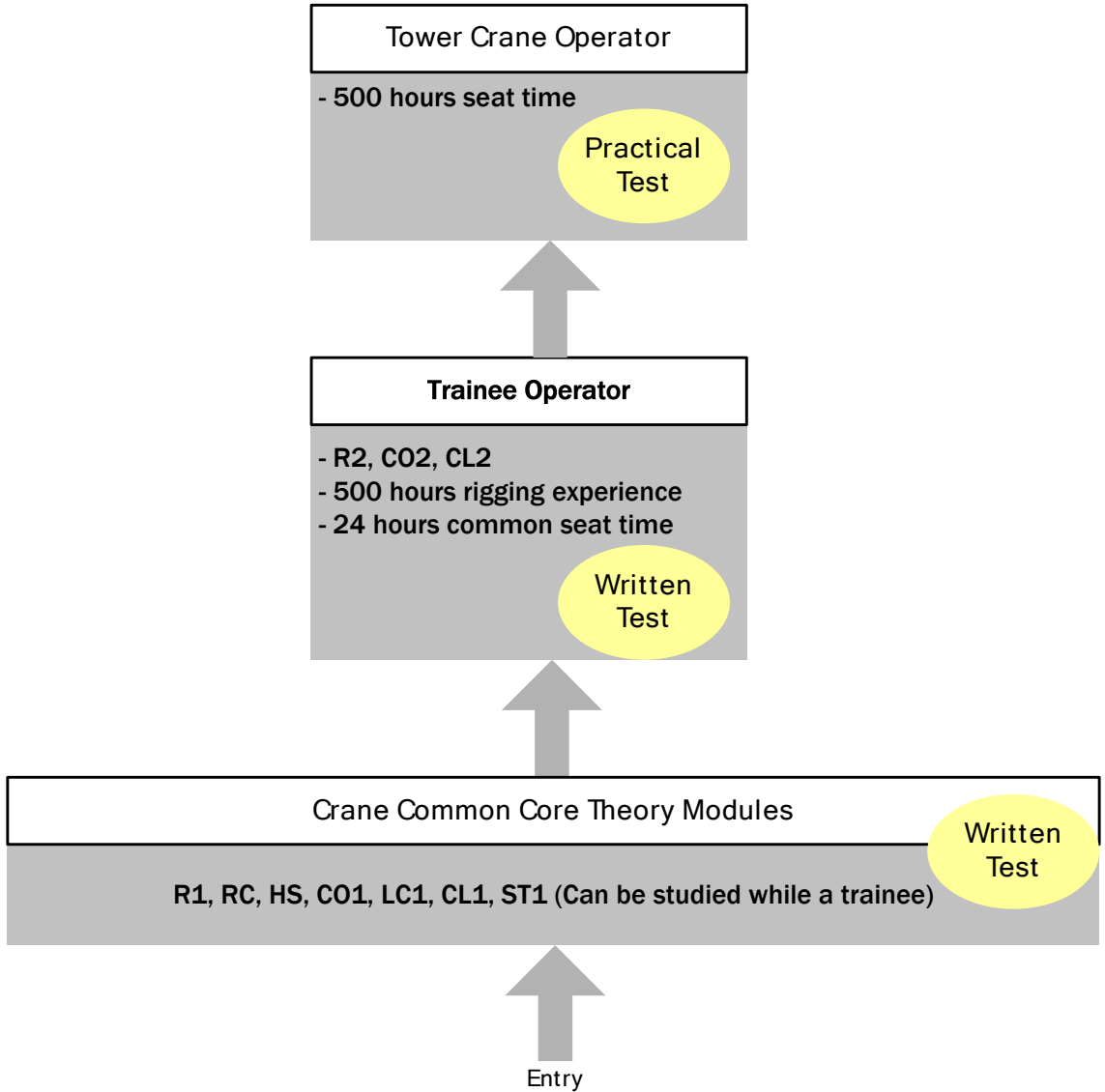
- **Competency Certification Scheme**
- **Map of each Qualification and Certification Equivalencies**

## Competency Certification of Crane Operators



# Tower Crane Certification

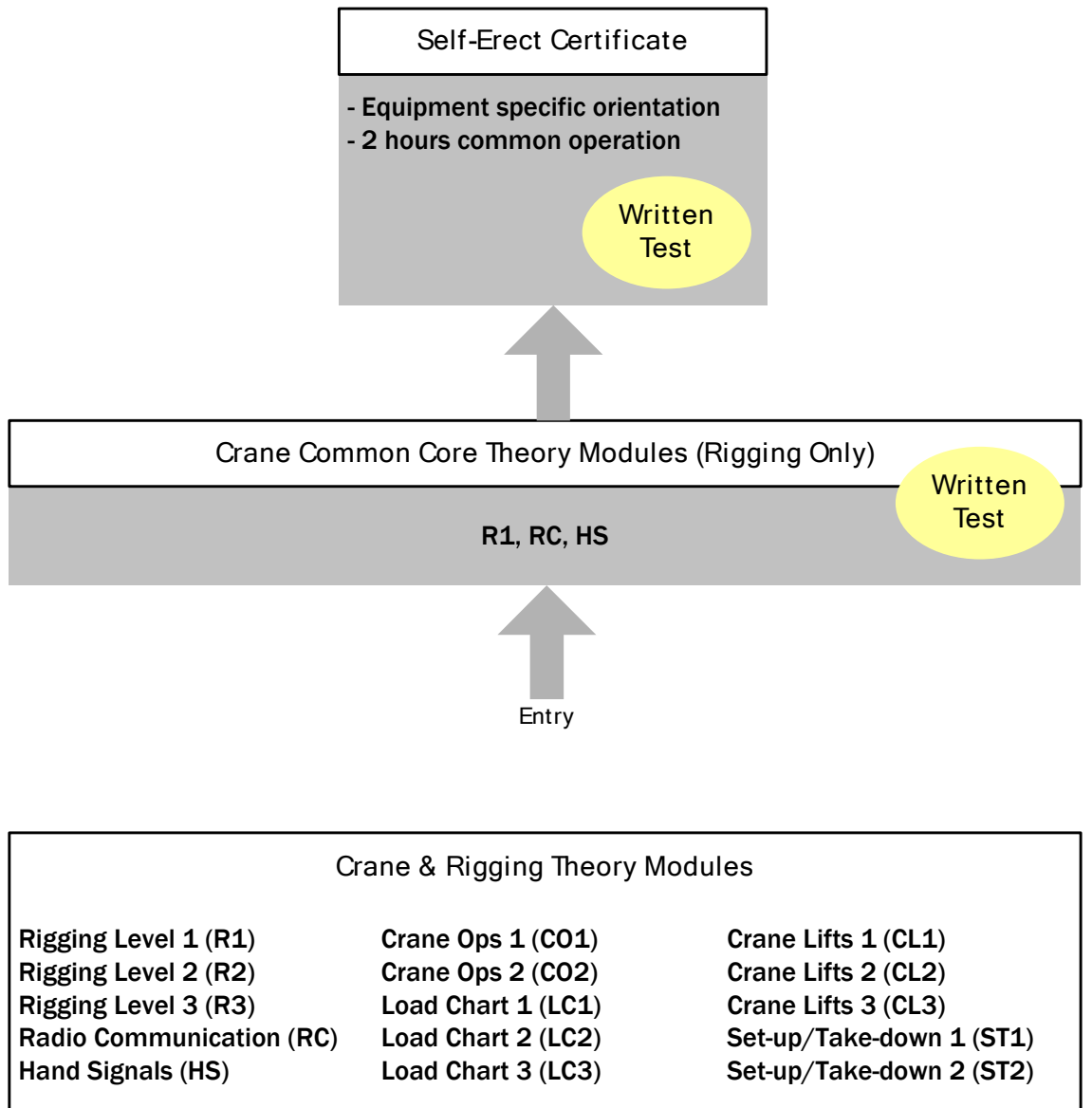
## Tower Crane



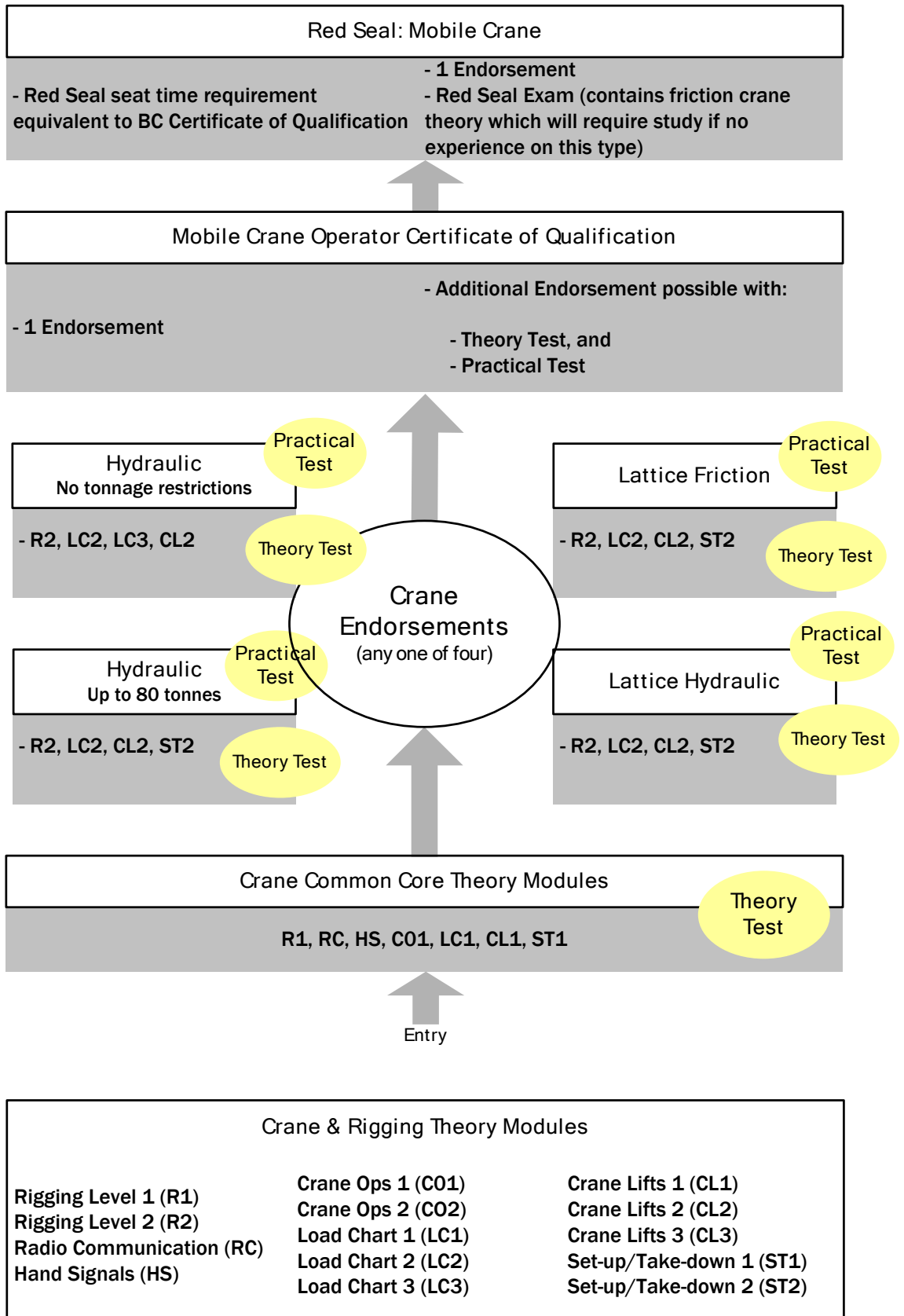
Crane & Rigging Theory Modules		
Rigging Level 1 (R1)	Crane Ops 1 (CO1)	Crane Lifts 1 (CL1)
Rigging Level 2 (R2)	Crane Ops 2 (CO2)	Crane Lifts 2 (CL2)
Rigging Level 3 (R3)	Load Chart 1 (LC1)	Crane Lifts 3 (CL3)
Radio Communication (RC)	Load Chart 2 (LC2)	Set-up/Take-down 1 (ST1)
Hand Signals (HS)	Load Chart 3 (LC3)	Set-up/Take-down 2 (ST2)

# Self-Erect Crane Certification

## Self-Erect



# Mobile Crane Certification



# Boom Truck Certification

