



**BC Association for
CRANE SAFETY**

Crane Operator Qualification

INDUSTRY WORKSHOP REPORT

BOOM TRUCK WORKGROUP MEETING #1
WorkSafe BC, Richmond British Columbia
November 14, 2005

Introduction

The BC Association for Crane Safety (BCACS) was established in November 2005 to promote the development of an industry-driven crane operator qualification system in British Columbia.

The association board has representation from various private bodies that have a stake in the development of that system, and includes:

Larry Sinclair	Marine & Pile Driving Contractors Association
Bob Fedderly	Fedderly's Construction
Jim Barkman	Eagle West Tower Cranes Inc.; Eagle West Truck & Crane Inc.
Geoffrey Nielsen	BC Hydro
Gary Kroeker	IUOE Local 115
Peter Sperlich	Log and Timber Building Industry Association
Brian Savage	Western Industrial Contractors
Mike Stekelenburg	Alcan (Heavy Industry Training Advisory Committee)
Rob Magee	GWIL Industries

There are important differences between industries that use similar hoisting devices, and these differences need to be understood and accommodated in order to create a system that works for everyone. The BCACS has therefore initiated a series of stakeholder workshops to gather information and to identify consensus in areas including:

- a) Creating standards and competencies according to industry, site and usage, and equipment type
- b) Including incumbent crane operators as well as new entrants
- c) Supporting the development of appropriate WorkSafe BC regulations and guidelines for the industry
- d) Creating a system to help crane operators achievement and maintain competency
- e) Developing training and testing materials
- f) Making the industry attractive to talented potential new entrants.

The November 14 boom truck workshop was the first in a series that also includes workshops involving the owners and operators of both tower cranes and mobile cranes. These workshops are the first step in developing a crane operator qualification system that makes sense and has value for all stakeholder groups. The BCACS will take direction from the out comes of these workshops to ensure that the resulting crane operator qualification system is meaningful, enforceable and accessible.

The primary goal of the workshop was to complete a DACUM for a boom truck operator. An occupational analyses developed by the Construction Sector Council was utilized to expedite the process. Subsequent roundtable

discussions explored the diverse cultures of different parts of the boom truck crane industry in order to find areas of commonality and to identify differences that need to be respected and accommodated.

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In Attendance:	Ken Morrison	BC Hydro
	Bill Sandhu	B&B Truss
	Wayne Fettback	Western Pacific Enterprises
	Jim Barkman	Eagle West
	Will Denhertog	Curtis Lumber
	Kerry Hawley	Mega Cranes
	Michael Pelletier	Emil Anderson Construction
	Rob Magee	GWIL Industries
	Fraser Cocks	BCACS (Executive Director)
	Russ Robinson	Industry Training Authority
	Betty-Ann Lee	WorkSafe BC (Recorder)
	Kathy Sheppard	WorkSafe BC (Work Group Coordinator)
	Andrew Klukas	Andrew Klukas & Associates
		(Facilitator)

Part 1. DACUM

1.1 Description

A DACUM (“Develop A Curriculum”) process is used to define the various tasks, regular duties and procedures that workers perform in their occupation. This is achieved by gathering together representatives from industry to describe each skill set required to become a competent crane operator. The resulting information is used to develop training guidelines and programs and to define and develop meaningful testing criteria.

1.2 Purpose

The DACUM process was the foundational work required to achieve the goals of this project. In order to streamline and speed up the development process, various sources were brought together and compiled in a single document.

Source materials have already been developed by the Construction Sector Council. Rather than starting over from the beginning, we presented these materials to the boom truck workgroup participants. During the workshop the

participants selected from these materials to define crane operation competencies that describe how they do business in BC.

1.3 Results

Appendix A contains the document resulting from this work. The content of each competency is a guide and is not intended to be exhaustive. Nonetheless, this definition of competencies was a critical step in developing a meaningful and workable crane operator qualification regime. With a strong solid foundation we can move forward and build a standardized qualification regime that is based on the principle of documented proof of competency.

Part 2. Roundtable Discussion

Workshop participants were asked to describe their current training process to identify the existing culture in the industry. Training approaches are highly varied depending on the type of equipment and size of the company. Rather than a current system, there appear to be as many systems of operator training as there were industry representatives at the workshop. For example, based on a survey of participants:

- Some companies appear to have a well-established internal training program that includes considerable practical training under supervision, and regular on site inspections. The degree of formality increases in proportion to the size of the company.
- Some companies have no formal training requirements.
- Some companies contract with third party training providers.
- Some companies only hire fully trained operators.

Nonetheless, workshop participants shared a commitment to the use of trained operators and an interest in a system of training and operator qualification that is:

- Meaningful
- Accessible
- Enforceable
- Inclusive, and
- Cost effective

Participants expressed an interest in working together to articulate a more consistent culture that will ensure the availability of a suitably qualified workforce

while accommodating the diverse needs and interests of different sized companies in different regions and industries.

2.1 Issues Outlined

What would the most basic “documented proof of competency” need to include?

Participants attempted to identify an appropriate way to classify competencies according to different types of equipment and characteristics of the operator.

Variables considered included:

- Whether the operator is a career crane operator or a casual operator
- Type of boom trucks (i.e., stiff boom or folding boom)
- Range of equipment
 - from 1 to 80 ton
 - with and without hydraulics
 - length of boom and/or extension
 - number of folds
 - with or without separate cab

As an alternative strategy for organizing competencies, a system of training ‘modules’ was outlined whereby various elements of the Boom Truck Operator DACUM would form discreet training units that would allow crane operators to choose a career path based on the progressive accumulation of competencies rather than an more narrowly selective focus on specific types of equipment.

Essentially a modular system would diversify the association of competencies with equipment types. For example, there might be three or four levels of competency in “Rigging”, and various levels for “Operation,” and other factors. Operators could select the levels appropriate to the equipment they wish to operate or the career paths they are choosing. If they later wish to branch out they would know exactly which modules they need to take.

It was agreed that there should be some method of **evaluation** which:

- is standardized
- is tiered or modular with a series of levels that might be based on the type of crane being operated and/or characteristics of the operator
- contains a practical component
- contains a theoretical component

Workshop participants considered various **pre-qualifications** to screen potential operators for such attributes as:

- age – 18+
- physical
- minimum education

However, while there was some interest in screening out unsuitable candidates early, there was a preference for avoiding the creation of barriers to entry for new operators.