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COCA Update on WorkSafeBC Activities #527 February 16, 2012

COCA Works for Fair and Balanced Crane Regulation

The following COCA Submission was sent today to WorkSafeBC at the request of Rob Magee of the Mobile Crane Owners' Association, in conjunction with the consulting engineers involved.

WorkSafeBC Regulation 14.71 and Guideline and CSA Standard Z150

There is some ambiguity of language in the CSA Standard and the WSBC Guideline. This ambiguity is causing difficulty with mobile crane owners; some have had WorkSafeBC Orders written on their cranes.

We are deeply concerned that the enforcement of these Orders will effectively shut down the mobile crane industry in BC.

COCA believes that a reasonable interpretation of the WorkSafeBC Regulation and Guideline will safeguard the workers and allow the continued operation of mobile cranes.

We are requesting that any existing Orders be rescinded and that WorkSafeBC Officers receive direction on the proper interpretation of the Regulation and Guideline.

Issues

1. The issue is the WorkSafeBC interpretation of the Daily and Periodic Inspections that are performed by qualified persons.

COCA believes that the CSA and the WSBC Guideline do not require an engineer to certify the daily or periodic inspections.

This view with respect to the CSA is confirmed by the Chair of the CSA Committee that drafts the Z.150 Standard, in the following quote from correspondence to Grant McMillan:

**“As to your first question, the daily and periodic inspections are to be performed by a competent person. It was not the intent of this standard to require an Engineer to certify the daily or periodic inspections.”
Doug Reilly, Chair, Z.150 Committee. (See full correspondence, below)**

2. The issue is the WorkSafeBC interpretation of the Annual Inspection and its structural, mechanical and control components.

COCA believes that the structural component is required to be certified by an engineer.

COCA believes that the mechanical and control components are required to be inspected by a qualified person or qualified persons who may report to the engineer – if they identify a problem that requires the assistance of an engineer. The engineer, however, does not certify the work of the qualified person(s) – for the reasons stated below.

The employer is responsible for ensuring that the qualified persons are in fact qualified by “reason of education, training, experience or a combination of thereof”. WSBC OHSR, Part 1, Definitions.

The logic behind this is that no single engineer can be an expert in structural, mechanical and control systems for all machines.

Since there are dozens of different mobile cranes with different set-ups in BC, no one engineer can possibly be familiar with all various mechanical and control components. Engineers specialize in certain fields, such as structural, electrical, geotech, mechanical, civil.

The best person to inspect and ensure the safety of the mechanical and control components is the qualified person who regularly does the inspections of and maintenance on the crane in these areas.

For the same reason, there is no logic in having the engineer certify the work of the qualified persons, when the engineer is not qualified to do so on all machines.

The engineer may discuss the mechanical, electrical, hydraulic controls if there is an issue. The inspection results by the qualified person remain the responsibility of that inspector and his/her employer, not the engineer.

The employer selects and employs the worker who is qualified as per the WorkSafeBC definition.

In some cases, the repair or modification work may be done off-site by the manufacturer or by some specialized third party service and these areas are beyond the control of the engineer.

However, it is reasonable that WorkSafeBC may request information on the qualifications of the people doing this work within the scope of the regulations if there is a recognized need.

Excerpt from WorkSafeBC Guideline 14.71

It is recommended that the certification also include a statement that the structural, mechanical, and control elements of the equipment have been inspected in accordance with the manufacturer's specifications and the requirements of the applicable design and safety standards. Any necessary repairs that have been completed and re-inspected in accordance with manufacturer's instructions, the applicable standards, and the engineer's repair procedure should also be noted. It is also recommended that the certification identify the persons who carried out the inspection and their qualifications.

COCA Comment

COCA believes that this excerpt does not recognize the complexity of the repairs/modifications that are sometimes done to cranes. For example, on any single crane, some repairs may be done at the manufacturer's repair site

in Pennsylvania; some in Alberta, some in BC. A local engineer is simply not in a position to audit or approve repairs. These complex repairs should be separate from an annual inspection requirement by the engineer.

Note that the Guideline does not specify who must do the inspection of the work performed by those qualified inspectors – and the Guideline also states: “It is also recommended that the certification identify the persons who carried out the inspection and their qualifications.” (GM addition: See Note 1, below)

This suggests that the inspection is done by someone other than the engineer but a person who is under the supervisory responsibility of the engineer.

We believe that this reasonable interpretation of the Regulation and Guideline sets a high standard for safety.

In the longer term, COCA also recommends that the Guideline be revised to remove any ambiguity and enhance clarity.

Note 1: COCA suggests, among other changes, that the Guideline be revised to read: “It is also recommended that the certification identify the persons who reviewed the inspection by qualified persons pertaining to the mechanical control elements and their qualifications.”

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January 5, 2012

Hi Grant,

As you are aware, the CSA Z150-98 has been revised and issued as CSA Z150-11. The clauses that you have referenced in your note below have been

re-numbered in the new edition 5.3.5.1, 5.3.3.1 and 5.3.4.1. There has been some wording changes but essentially they are very similar to the 1998 edition. The definition of Competent Person remains unchanged.

As to your first question, the daily and periodic inspections are to be performed by a competent person. It was not the intent of this standard to require an Engineer to certify the daily or periodic inspections. (Red and bold face added by Grant McMillan.)

As for questions 2 & 3 I have included an excerpt from the relevant clause

5.3.5 Annual inspection

5.3.5.1

Complete inspection of the crane shall be performed by a competent person and supervised by an engineer competent in the inspection of cranes.

You are not the first person who has raised the question of mechanical and control systems as they relate to the annual inspection. The daily (5.3.3.1) and periodic (5.3.4.1) inspection clauses, causes some ambiguity for the supervising engineer, with the requirements of the annual inspection as they are referenced in the annual inspection clause (5.3.5.1). I have my own feelings on the topic but would like to defer answering this question until it is put before the Technical Committee. We will be meeting in the beginning of Q2 and will put it on the agenda. We will supply you an interpretation at that time.

Best Regards
Doug Reilly
Technical Committee Chair
CSA Z150-11
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PS. CSA Z150-11 is available for purchase on this website
<http://shop.csa.ca/?gclid=CJexrPypua0CFWkDQAoduDOplw>