

Case: 2007-07(A)

Subject Member: Registered Professional Forester

Referred to: Discipline Committee

Date of Decision: December 13, 2008

Type: Alternate Dispute Resolution Settlement: Admission and Negotiated Settlement

### The Complaint:

The complainants made allegations that the subject member failed to meet his professional obligations with regards to construction of a bridge on a forest road. The case was the result of the collapse of the bridge. An investigation of the construction practices after the bridge collapse indicated that the bridge was not constructed according to the original design specifications.

The allegations made by the complainants were potential breaches of the following sections of the ABCFP bylaws:

- 11.3.2 To uphold professional principles above the demands of employment.
- **11.3.7** To practice only in those fields where training and ability make the member professionally competent.
- 11.3.10 To have proper regard in all work for the safety of others.
- 11.4.1 To inspire confidence in the profession by maintaining high standards in conduct and daily work.
- 11.5.4 To accept only those assignments for which the member is qualified or seek assistance from knowledgeable peers or specialists whenever a field of practice is outside the member's competence.
- **12.4.1** Members, in private life, professional practice, or outside professional activities, always conduct themselves honourably and in ways which sustain and enhance their professional integrity and the integrity of the profession as a whole.
- **12.5.1** Members exercise due diligence by being prudent and doing all work with constant and careful attention.

#### The Facts:

A 10m log stringer bridge failed under load during crossing by a Madill 144 grapple yarder. The failure took place during a third crossing by the yarder and after active log hauling across the bridge. The failure involved the midspan failure of 5 middle stringers directly under the yarder, which dropped 2m into the S5 stream channel. There were no injuries, spills or environmental impacts other than the introduction of shot rock bridge decking into the stream channel.

The bridge was certified by the subject member who was the coordinating registered professional (CRP) for the project. The certification of the bridge by the CRP notes that the span was increased to 10.4 m and the average diameter of the stringers was 72 cm. A



design aid table for selecting mid span diameter for log string bridges was apparently used. It appears the CRP erred in interpreting the design aid table. The bridge stringers were determined to be undersized and the sill log diameters were reduced.

The primary construction deficiencies were in the sizing and quality of the bridge stringers and the 1 metre (10%) increase in the span over design specification. Contributing factors may have included the specified lashing pattern and the load distribution on the bridge from the grapple yarder.

It appears that the lashing of the bridge stringers followed the design specifications (gut lashed at each end). However the author of the design aid table no longer felt that this was adequate practice and not consistent with his definition of tightly lashed. The failure pattern (only the five logs underneath the yarder) suggests that the nine stringer structure did not act as a single unit. In other words, the bridge appears to have acted more like a five-stringer bridge than a nine-stringer bridge, which would further reduce the inherent load capacity of the structure.

The final contributing factor was the load exerted on the bridge by the grapple yarder. The bridge design indicated a design limit of L165 [165,000 kg GVW with a max axle weight of 46,000 kg], which is standard for logging structures in these circumstances. At 120,000+ kg the grapple yarder involved in this incident would have been at or above the safe limit of the bridge.

This case raises questions about: (i) the adequacy of specifying standard logging truck design configurations for major structures in and between settings where large grapple yarders may be used; (ii) the use of design aids for log stringer and other bridges; (iii) the level of expertise required for ABCFP members engaged in bridge work, and; (iv) the measures available to the professional to verify that they have the required expertise.

#### The Negotiated Settlement and Penalty:

Under Section 23 (1) of the *Foresters Act* (SBC 2003, c. 19) and Bylaw 14.11 the registrar initiated an alternative complaint resolution process with the subject member. The resulting negotiated settlement was reviewed by a panel of the Discipline Committee and approved. The settlement includes:

- 1. A five year suspension from engaging in work in relation to bridge design or construction.
- 2. A requirement to undertake additional training in bridge inspection and certification to the satisfaction of the registrar before resuming work in that field at the end of the five year prohibition noted above.
- 3. An undertaking to consistently abide by the Code of Ethics and Standards of Practice while a registered member of the association.



### **Discussion:**

There is little precedent in the Association of BC Forest Professionals' recent history with which to consider this case. As a result, to determine if the remedies agreed to in the settlement are reasonable, the panel interpreted the intent of the alternative complaint resolution process, and the available remedies within the context of the overall duty and legal obligations of the Association to serve and protect the public interest.

The panel has considered whether the proposed negotiated settlement meets the Association's obligations to the public and profession by considering the following questions:

- 1. Given the facts of the case, how serious are the infractions and what is the appropriate range of sanctions or remedies the Association might reasonably and fairly apply in order to meet its duties under the Act?
- 2. Is one or more of those sanctions, remedies, or actions present in the settlement?
- 3. In addition, does the settlement as a whole meet the following specific tests:
  - a. Does the settlement adequately reflect the harm caused to
    - i. the profession,
    - ii. the public, and
    - iii. the subject member's client?
  - b. Does the settlement remove any economic benefit the subject member may have gained as a result of the alleged activities?
  - c. Is the settlement sufficient to provide a specific deterrent to the subject member and a general deterrent to other members?
  - d. Is the proposal sufficient to rehabilitate the member?
- 4. Is the severity of the sanctions in the negotiated settlement agreement commensurate with the relative degree of harm caused under 3(a)?

The public and clients rely on professionals to protect their interests by complying with high standards of professional practice. Professionals are guided in the meaning of these expectations by the *Foresters Act* and the Association's bylaws, Code of Ethics and Standards of Practice. While the bylaws cover a wide range of responsibilities, it could be argued that none should come before regard for the safety of others.

An error in of itself does not necessarily constitute a breach of the bylaws; however, a professional is held to a higher standard than other individuals. In his case the member has admitted to not having proper regard for the safety of others and failing to maintain high standards. The panel agrees that the information provided by the parties supports this admission, and that this is a contravention of the bylaws.

In the opinion of the panel, the member's conduct caused harm to the profession, in that he exercised discretion without showing adequate diligence to the standard of his work in relation to the certification of a bridge that did not meet design standards. The severity of this harm is consequential, but not extreme since there is no suggestion that



there was repetitive or purposeful disregard for professional standards. This appears to be an isolated error in judgment and did not discredit the profession in the eyes of the general public.

Harm to the public in this case exists as a result of the safety and environmental risk caused by the improperly constructed bridge. In this case the interests of the general public were at minimal risk, although, had the incident resulted in a fuel spill in the stream, for example, it could have been argued that environmental damage would harm the general public interest. When the public interest is extended to include the safety of forest workers, however, the result is that a significant risk to the safety of the equipment operator(s) was created by this incident.

The degree of harm to the member's client is not specified in the complaint information. However, even if portions of the bridge replacement repair costs were indemnified, there would still be operational costs to recover the equipment, lost time, and other unspecified costs. These costs could be in the several thousands of dollars.

There is no indication that the member received monetary benefit from the breach or that there was any mal intent by the member.

Having considered all the information before it and the severity of the bylaw breaches to which the member has admitted, the impact or potential impact of the resulting incident on the profession, the public and the client, and the proposed remedies in the negotiated settlement, the panel was of the opinion that the settlement was an appropriate penalty.