

Report Preparation for Engineers Assisting in Litigation

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Introduction to Forensic Engineering
MAB 1033 Structural Assessment & Repair
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Why Report Structure is important

- Recent cases have set new and exacting standards for expert reports.
- Admissibility: if it's not in the report, forget it!
- Expert reports are usually not like normal engineering reports.
- Liability evidence can be critical.

Reminders

- Your job is to assist the court.
- Your role is to educate, not conclude.
- Leave your ego at home.
- Stick to your limits of expertise.

Background Principles

- The Court determines the facts and applies the law to reach a conclusion.
- Experts may *assist* a Court determine the facts.
- Even if expert evidence is admitted, the Court must still analyse that evidence and make its own decision.

Background Principles

- The court cannot delegate its decision to the expert or simply rely on the expert's assessment.
- The expert assists the court. The expert's evidence does not determine the issue.
- The expert's role is largely educative and never, never, never an advocate.

The Expert's Role

- To assist the judge to understand the issues so he or she can properly decide.
- To provide the Judge with the knowledge and tools he or she needs to analyse the problem.
- To provide the Judge with criteria to enable him/her to evaluate the expert's opinions and conclusions.

Engineer's Strengths

- Analytical abilities
- Reconstruction
- Realistic
- Good at conceiving alternative “fixes”
- Can be good on causality

Engineer's Weaknesses

- Limited exposure to ergonomics
- Conservative views (strangely)
- Little knowledge of cases
- Unfamiliarity with legal reasoning
- *“People are stupid”, “human error”, etc*

Preparing to Write the Report

- Was there a duty owed?
- Was there a breach of the duty?
- Did the breach cause or contribute to the injury?
- What degree of foreseeability existed?
- What reasonable preventive measures could have been taken?

The Report Structure

- Introduction: your expertise
- Scope of Instructions
- Documents and materials
- Assumed facts
- Inspections, tests
- Applicable standards and codes
- Discussion and conclusions
- Preventive options; remedial actions
- Summary

What the Report should provide

- Qualifications and relevant expertise
- Instructions received
- Materials relied upon
- Assumed facts
- Details of tests, inspections, etc

What the Report should provide

- Relevant codes, standards (including sources, why they are relevant, and application to the facts)
- Discussion
- Conclusions – detailing your process of reasoning
- Any specific questions put to you
- Expert witness statement

Expertise

- *Expertise* provides the basis which entitles a person to give their opinion evidence
- The report must make it clear that you have expertise in the field, and also on the issues
- Expertise in one field does not imply expertise in another field

Expertise

- Your report should include all of the relevant formal qualifications and experience (as an appendix).
- Don't assume the judge understands your field of expertise.
- A detailed statement of experience helps the court assess what weight should be given to your report.

Expertise

- Explain the relevance of your qualifications and experience to the issues.
- Attach a detailed CV as an appendix.

Documents used in the Report

- The court has a right to know what you relied on.
- List what you read, used or consulted only if you rely upon it.

Basis of Your Opinion

- *Principle*: the expert is directed to consider certain issues and to give an opinion based on assumed facts, or on facts you (the expert) have ascertained for yourself.
- So: first state the matters on which your opinion is sought.
- Issues about proving facts are ultimately for the legal practitioner.

Basis of Your Opinion

- The court needs to know exactly what facts you have assumed.
- Set out all of the facts you assume to be true.
- If in doubt, ask your solicitor to assist in deciding what facts to assume.
- The court may have to decide what facts are true.

Inspections & Testing

- An expert can give evidence of fact where (*by virtue of their expertise*) they can conduct an inspection or test and so determine facts.
- Observations of the expert are admissible as fact in the proceedings.
- Make crystal clear what you examined, what tests or inspections were done, what results were obtained.
- State clearly any provisos, limits or uncertainties about any conclusions or observations.

Inspections & Testing

- It is essential that the processes by which your “facts” were gathered are transparently clear to the court and reviewable by another expert.
- The court needs to know whether your “facts” rely on texts, on your inspection, on expert experience, on expert reasoning, etc.

Codes & Standards

- Cite title, source, and *why* they are applicable.
- The Court must know why a code or standard is applicable to the issues.
- If different experts apply different standards, the Court has to determine which applies.

Codes & Standards

- The source and content of any referenced code or standard must be set out.
- Append copies of codes or standards.
- The Court has to determine the applicability of a standard for itself.

Application of Standard

- Apply the code or standard to the facts to derive a reasoned conclusion.
- Explain how the code or standard applies to each of the assumed facts.
- The Court must understand *how* and *why* any conclusion is reached.

Explaining Your Reasoning

- *“There is a tendency among academics, professionals and others ... to mystify their field, often by the use of ... arcane language. Trial by expert must never be allowed to take the place of trial by jury”*
- *“The inability to articulate the principal tenets that need to be understood; to describe in ordinary language the methods used and the reasons that point to a particular conclusion – these are the hallmarks of unreliable science and the not-so-qualified expert.”*

(Maurice J in Lewis v R (1987) 88 FLR 104 at 123-124, applied in R v Lucas (1992) 2 VR 108 108 at 116-117.)

Summary of Report

- Provide a brief outline of the information, analysis, reasoning and conclusions given in the report.
- At or after the summary, deal with any specific questions which were set for you.
- If the Judge finds the facts were other than those assumed, the Judge may not follow or accept the reasoning process which led to the expressed conclusions.

Expert's Code of Conduct

- Each jurisdiction differs.
- What they generally require of the expert.
- It is often essential to include a statement about compliance with the Code in your report.

Terima Kasih