

Independent Expert Engineer

by Sean Moran, *Independent Expert Water Process Engineer*

I am an engineer specializing in the design, construction, operation and maintenance of industrial process plants which purify air and water. This covers, amongst other things, plants treating domestic and industrial effluent as well as those producing drinking water. When it comes to selecting an expert witness in a case involving operation of a process plant, I would argue that an Independent Expert Engineer is needed. In this article I define what I mean by each part of this term, as experience has shown me that other people use these words differently to me.

Independent

A truly independent opinion is not influenced in any way by personal feelings on a matter or by the people involved, and certainly not by how much is being paid for the opinion, under what conditions, and by whom. I make this clear to my clients at the outset, (especially where they attempt to describe the assignment as 'being on their team'). Whilst the typical response is generally along the lines of "of course, an independent opinion is exactly what we want", it is all too common for the client to come back to me once they receive my report, asking me to leave out the parts which don't suit their argument. I have seen a lot of unconvincingly one-sided "expert reports" by other "independent experts", and have to wonder if the expert's primary duty (to the court) is properly understood by other experts in my area.

Since a high percentage of cases never make it to court, expert witnesses can potentially operate for many years as hired guns before they have to make a court appearance. In the meantime, such experts can gain a reputation for a certain kind of "helpfulness", which appears to be go hand-in-hand with a full order book.

Some litigators have become so used to this kind of helpfulness that they positively insist on it. A partner at a Magic Circle law firm I worked with a few years ago insisted on the right to edit my report. In particular, they tried to make me remove a caveat which stated that I was not sure I had received all relevant documentation. When I refused to do so, I was threatened with legal action. (Their stance changed when I disclosed to the partner that I had actually been inadvertently copied in on an email in which the firm agreed with their client that certain documents should be withheld from me...)

The approach taken is rarely this blatant, but it is increasingly commonplace to be asked to produce reports which require the expert to assume certain facts, or which are based on a curated set of documents. However, engineering is not philosophy, and some states of affairs are more likely than others. In the absence of other evidence, the hoofbeats behind you are more likely a horse than a zebra. I personally have no

appetite for being cross-examined on the basis of a set of opinions which are contingent on the veracity of a teetering pile of technically implausible assumptions. As far as I can see, this approach is intended only to fashion a stick to beat the lawyers' opponents with.

Expert

What makes someone an expert in their field? I have over thirty years of practical experience as a designer, troubleshooter and commissioning engineer. I also have a relevant PhD, have written four textbooks and have been a University Professor, but I am a practitioner who writes, rather than an academic. If anything, I would suggest that a career in academia is a poor preparation for expert witness work in engineering.

For a start, working as an expert witness far more often involves assessing practice which is at best barely competent, than identifying Best Practice, or even Good Practice. The academic world tends to focus on how things ought to be, rather than how they are (in the opinion of academics). Good practice is exceptional, and Best Practice exemplary. These are not the standards which everyday engineering employs, and it is as unfair to apply them to an investigation as it is to second-guess people with the benefit of hindsight (another thing I see too much of).

I don't meet a lot of academics working as expert witnesses, and with good reason. In the real world of engineering, even in those projects I am involved with as a working engineer (rather than as an independent expert), I am frequently confronted by design work which falls short of the standard I once taught undergraduates to work to, sometimes signed off by more senior engineers who should theoretically know better. The projects I am involved in as an independent expert are foreseeably and understandably worse. These are the projects which have gone so badly wrong that either an insurance claim or a court case is in the offing. The difficulty then is usually in weighing up the relative contribution of the plant's bad specification, bad design, bad construction, bad operation, or bad maintenance to the cause of the reported issues.

Engineer

Engineer is not a protected term in the UK, and even the term "Chartered Engineer" (the UK equivalent of the US's Professional Engineer) doesn't entirely mean what it used to.

I am a Chartered Engineer, and when I became chartered (1995), this required an accredited engineering degree and at least four years of a specified type of practical experience, assessed as meeting a standard of competence by expert practitioners. Over time, the requirements have changed and the definition of practical experience, depending on the professional body, can now include various non-technical activities related to engineering.

My own experience is almost all as a designer or commissioning engineer, not a manager. However, I see a lot of expert reports written by man-managers with a poor grasp of the technical complexities of the matter, despite once having obtained an engineering degree. Worse yet, their management experience may incline them towards the 'helpful' team-playing approach which they often excel at in their professional careers, but which risks their independence. They are unconvincing to engineers - as I define the term. My limited experience of observing the reception of their reports in court proceedings suggests that they may also be somewhat unconvincing to a judge. In the most recent occasion in which I saw this, the judge stated that he was considering whether to publicly criticize the report's author.

In summary, expert witnesses working on process plant disputes serve neither their clients nor the courts unless they are truly independent, have the relevant professional experience, and are technically-competent Chartered Engineers. There are risks in appointing the helpful hired gun for all sides: if the client receives an unreasonably optimistic assessment of the merits of their case they may choose to press on with costly ineffective litigation. Court time is wasted on expert evidence which does not assist the judicial process. Meanwhile, the expert risks being admonished by the judge for writing a one-sided report and, in the extreme, the client may even have grounds to sue the expert for telling them what they wanted to hear, rather than what they needed to hear.

Author

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