

# Professional Performance in Engineering with Bret Walker SC

30 November 2016, Sydney

## Speaker key

AB Ashley Brinson  
BW Bret Walker  
CK Christine Kannelakis  
AH Alex Harrington  
QF Question from the floor  
AP Alex Page

00:00:10

AB Bret Walker is one of Sydney's and, indeed, one of Australia's, leading barristers. I did not know this until we got the biography and started researching Mr Walker, but he is a graduate of the University of Sydney; admitted to the New South Wales... admitted to the New South Wales Bar in 1979; appointed senior counsel in 1993 and past president of the New South Wales Bar Association and the Law Council of Australia. Mr Walker is a profoundly wise barrister, being in his office and hearing his advice was... it was really very good.

And so I ask you to put your hands together and please welcome Bret Walker.

BW From the embarrassment, Ashley, thank you. The exercise that we are, in a sense, celebrating this evening is one which I found, as a very, very limited role observer, to be really very impressive.

I wasn't an entirely innocent observer of this kind of process because as a bar president and national legal professional president, I had been very closely involved in the attempted improvement of our professional regulation, including ways that tried to introduce such foreign concepts as risk assessment to legal professionals.

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I personally was involved as the draughtsman of the ethical contact rules, which, by advocacy now, in this country, starting in New South Wales.

And so I've been used to the trade-off that is involved when there is explicit statement of a rule which a professional, bound by the rule, will fail to achieve at his or her peril, normally financially, sometimes more seriously than that. If it's an ethical

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rule, you may be struck off for failing to observe it, that is, deprived of your capacity to earn your livelihood in that profession.

I also was beginning to do more high court appellant work in negligence. I did not grow up with a personal injuries practice and so negligence was not a large part of my junior practice. But I was also starting to do that at the time that the Civil Liability Act was being gestated. As you will recall life as we knew it, planet earth in its current form was threatened with almost instant destruction according to some of my esteemed colleagues in the insurance industry unless the government did something to wind back, in particular, the liabilities and the extent financially of those liabilities of many of their insured customers.

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As with many emergencies of a political kind, it was no doubt just occasionally subject to just a little bit of an overstatement, but it has produced something which is a great moment of you in your endeavour that we're speaking about tonight. You have already heard one of the catchphrases.

Section 5-O, we lawyers have such lovely labels for important things, Section 5-O of the Civil Liability Act, which is in pretty standard form around the country now, provides as follows, translating just slightly to make allowance for the current context: so an engineer doesn't incur a liability in negligence arising from the provision of a professional engineering service if it's established that the engineer acted in a manner that at the time the service was provided was widely accepted in Australia – there's one of those important phrases, by peer professional opinion – that's a very important phrase, as competent professional practice. Now, this is law written by lawyers and so it's not as straightforward as that English may sound. It does not incur a liability; it does not tell you when you do incur a liability. It records the defensiveness that the history I referred to politically has produced in this statute. It was intended to be a cutting back or a protection against what was thought to be the ravelling Barbarians of plaintiff lawyers.

But, believe me; protection didn't come in an uncomplicated way. The very next provision in Section 5-O introduced by a fairly ominous word in the statute – however. That tells you that people like myself will ever be sure of a job. However, peer professional opinion cannot be relied on for the purposes of this section if the court, let me interpolate that to remind you as engineers that means lawyers, not engineers, if the court considers that the opinion is irrational. That last word, irrational, of course, is being contemplated to be applied by a judge, that is, a lawyer, to what peer professional opinion widely accepts in Australia to be competent professional practice for engineers.

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So there's culture class built into these provisions and don't for a moment believe that it doesn't exist in practice; it does. In practice, it's basically dealt with in a civilised, if somewhat expensive fashion, namely, the judge is instructed on that which is rational as well as that which is widely accepted and that which peer professional opinion regards as competent. They're instructed by, guess what?

Expert engineers. And so what goes around comes around in a sense, but the final decision making is left to a judge.

Just in case you thought it might be a relatively straightforward matter in order for this anthropological exercise conducted by judges to be carried out, when you can go out, as it were, and look at practicing engineers in the wild, so to speak, and catalogue what they do and work out from that what peer professional opinion regards widely accepted to be competent professional practice, just in case you thought that might be straightforward, we are told, another of these negative provisions, the fact that there are differing peer professional opinions widely accepted in Australia, it's a polite way of saying that there is disagreement within the profession, does not prevent any one or more, and then, I love the next phrase, or all of those opinions being relied on for the purposes of this section.

So you can have differing opinions, they may even be opposite, such as you should take this precaution, or you should not take this precaution. Or, perhaps more realistically, you must take this precaution or you need not take this precaution; that would be a more common case.

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How you can rely on both of those, I don't know. But, anyhow, that's what we lawyers have written for you.

And then, finally, just to ensure that there will be scope for factual dispute, I'm afraid, about peer professional opinion, lawyers couldn't possibly have court cases run without factual disputes, they'd be over too quickly, it says any professional opinion does not have to be universally accepted to be considered widely accepted.

Now it's against that background that it seems to me that endeavours that produce material by consensus, by careful, not necessarily rapid, but by careful and considered consensus approaches, such as this protocol, are greatly to be welcomed, not just by the engineering profession but, facetiously, by the lawyers who otherwise would have to argue about more things than really they would want to argue about.

But, much more seriously, the public, by which I mean not just people alive today, I mean the people who will benefit from or perhaps suffer from engineering benefits or detriments well into the future, people not yet born.

And it seems to me that it's a really inspiring exercise to be involved in, to see a profession trying to deal with what we the lawyers and the judges in particular, subject only to a little bit of care and attention for power, it's what we, day in and day out, in the courts inflict upon you by reason of the law of negligence.

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Now I say the law of negligence, but the whole of this area is not, to put to one side, contract is at the heart of matters. There are engineers, like lawyers, who do pro bono work but that's not what characterises the way we earn our living. And so, mostly, I work because I'm retained by someone for a fee, and so do engineers. And

so, mostly, there'll be a contract, an engagement, a retainer, which will say what does the client or customer want, what standards ought to be achieved, what time performance measures are applicable, etc., etc. Most of all, they'll have something about price.

Price will often inform, of course, of what I might call the intensity of the work that it would be reasonable to expect. So you won't get a Bentley for a Volkswagen price, simple as that, even though they are both owned ultimately by the same mob, and I don't think you'll get told lies about the Bentley's fuel system.

What is significant, of course, is the... it's not the contract to which you can look to know the identity of the people who can make a claim against you as an engineer, or even the extent of the claims that can be made. Now I hope that in contracts to the extent that you're able to bargain for this, you do stipulate the kind of liabilities which are either agreed by the parties to the contract to be limited or to be excluded. Limitation and exclusion clauses are an extremely valuable way of both sides of the contract getting a bargain. The contingencies that need to be built in where the liabilities cover risks that are perhaps fantastic or the liable amounts in question are unmanageable, that is, uninsurably large, mean that it's not against a client's or customer's interest to agree to limitation or exclusion clauses.

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It may be the only way to get a realistic job at a realistic price. But that is only between the engineer and the customer; the engineer and the client.

Most engineering work with which I am involved will include at least two or three other levels of contract. Nowadays, particularly with financing being closely involved in the very inception, not only the carrying out of engineering projects, there quite often is another and extraordinarily legally demanding level of contracting involved between the syndicate members who are financing the project and those who are carrying it out.

That is why the common law of negligence remains the dominant feature and why I think that this protocol approach, which I suggest to you ought to be seen in aviation jargon as a checklist approach, and all the better for that. That is why I think this protocol approach is so valuable.

We can do things to hedge bets in a contract. We can have written down exclusions and limitations in a contract, but I can assure you that that no lawyer will ever responsibly tell you that he or she can get you, in advance, in the abstract and comprehensively, protection against negligence claims. You can certainly get them subject to some very interesting argument that didn't go anywhere ultimately because of circumstances which are typical, that is, the case is going to cost more and the uncertainty was going to go on for too long for it to be worth fighting, that arose from some of the oil and gas problems in Western Australia. And notorious problems I can't say too much about.

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There are fascinating problems as to the extent to which negligence can be excluded as a possible claim between parties to a contract but there the manager will sign. What you can't do is to exclude all the people who are vulnerable, which is the word the high court currently uses, who are vulnerable to that which might happen if an engineer fails to take reasonable care judged by the peer standards that the Civil Liability Act speaks of.

Unfortunately, section 5-P, which follows section 5-O, undoes a lot of the apparent protection in areas that I suspect many engineers have to worry about, and I don't mean you should be gnawing your fingernails, but I've no doubt that it informs your professional care. Engineers, preternaturally deal with what I'm going to call, literally, tectonic forces. In other words, gravity and geotechnical matters. And they have an unfortunate habit of killing people, particularly when artificial structures don't do what they were designed to do, or, perhaps when they were designed, with a view to what might happen, more accurately.

And section 5-P, 5-P, I regret to tell you, reads as follows: this division, that's a grand legal way of saying 5-O because there are only two sections in that division; this division doesn't apply to liability arising in connection with the giving of, or the failure to give, a warning, advice or other information, let it be interpolated at that point, and that's a lot of what engineers, like all professionals, will do. I learned as a very young lawyer always to read the little boxes of script that you find in the corner of plans settled by engineers, that you should translate as something like build this at your peril.

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In any event, so engineers, arising in connection with the giving of a warning, advice or other information, in respect of the risk of death or injury to a person associated with the provision by a professional, that is, by an engineer, of an engineering service.

So, engineers, I'm afraid, aren't just going to cause customers, clients, banks and others massive financial losses, many of which can be dealt with by contractual means, alas, from time to time, engineering failures will cause death and injury. And so we are left back pretty much in what I'll call the wilds of common law as negligence.

Now, I don't want to sell my profession and its intellectual achievements too short, I call them the wilds just because it's a general standard, it's all summed up in the one word reasonable, which I'm afraid defies further definition. You'll know it when you see it, apparently, or, at least, the majority of the judges in the final appellate court will tell you what it was.

It's for those reasons, it seems to me, that the intellectual resemblance of this protocol to a checklist with which I'm familiar from aviation and medicine and hospitals, is such an admirable feature of it and one that I really urge the profession to preach the merits of.

The very best way of being able to serve clients, customers, and to protect some people who may not even be born, from a building or a bridge falling down when it shouldn't, the very best way is to make sure that that which you might justifiably think is in your skim, out of your intuition, from your experience and, in some of your cases, your brilliance, that may be, in all modesty, you would turn your mind explicitly to the question whether, in fact, you have covered off everything.

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And that is why, it seems to me, when we turn to the question, well, is the trade-off one that has too much danger when you publish these protocols, the answer is simple – no, not at all. There are two aspects I'd like to discuss with you about that.

The first is the high-minded one which is made, in my opinion, this such a creditable endeavour by the engineering profession.

The high-minded one is that this is a checklist, every word of which, if taken seriously and observed, will unquestionably either alter the conduct of those whose conduct ought to be altered because it ought to be better, or it will render certain the compliance with the standards of those whose standards are good against the possibility, which is human, of error because the annals of negligence in the courts include people whose names are usually published because of everything they've done publicly and cases being reported. It would be among the leaders of their own profession because it is not a defence to a negligence claim to say I am commonly considered to be the best in my field, people come to me to see how to do things, I have done more of this kind of operation, for example, if I'm a surgeon, than anyone else and I've written a book on it. That's not an answer to the case by the plaintiff that says, well, that's terrific, that's no doubt why I came to you, but on this occasion you fell short of the standard which is reasonable.

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And then the irony which many professionals resent, but wrongly, where the plaintiff says, and, in fact, you are so good that judged by the standards which are reasonable in your case, what you did was all the more obviously negligent. Professionals resent that but they shouldn't. A moment's thought should say that it is, in the most high minded way, our duty as professionals to society, not legal duties, to society, to do the best we can, not fair average quality. Fair average quality may get you off a negligence case but can you imagine any profession, let alone engineers, saying it is the duty of every engineer not to be negligent. That would be an absurd proposition, what a low standard you have set yourself because the notion that an engineer's duty to society is discharged by merely doing that which is reasonable, is to commit the fallacy of thinking that we lawyers are judges, common law, have said that which ought to be achieved in the general run of professional conduct, as opposed to the standard to which you will be held by an award of damages.

We lawyers are pessimists. We deal with failures. But professionals, including us lawyers, thinking about our own conduct because we can be sued, like all professionals, the very best way, the high minded way, to see the promulgation of standards is that they are those which will enable us to do the best job not merely the reasonable or parts of a job.

So that's the high-minded explanation as to why there is no adverse trade-off in rendering explicit by this protocol what engineers ought to do in order to assess risk and meet these social duties.

But then we turn, as we're really obliged to, to the technical, legal question. Does the promulgation of a protocol like this have legal consequences, particularly in relation to what's summed by that dread word liability? And there are a number of comments which I hope will provide some reassurance.

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The first is, well, yes, it will have an effect and you hope so too, that is, you hope that this will be taken up as something that can be described as widely accepted. Why would you go to this effort otherwise?

If it's widely accepted it's clearly, from its very terms, going to be widely accepted by peer professional opinion, that's what's produced it, by great virtue of its providence and its future. It's a product of and it's for and by your peers in your profession. And it bespeaks in every line a concern with what I would call professional competence. It speaks, the previous understanding not being invented in this document but being expounded in it, the previous understanding of standards which not just by observation but also by normative urging, the profession wants to have achieved because none of us is perfect and I don't think there's a single one, engineer or lawyer, who can say that we've never done something which has fallen short of original standard, that's impossible.

Most of us, fortunately, are lucky enough they didn't hurt anyone and we were able to fix it.

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And so any professional who is able to be conscious of that is able to understand that but usually for some good fortune, we all may have been held liable by a court of law for negligence in our practice.

There is no doubt that the wide acceptance of the promulgation of standards in this protocol will come to be held against certain defendant engineers; there's no doubt about that. And if, for trade-off purposes, the plight of one of your colleagues in cross-examined on his or her failure to comply with this protocol or, failure to agree with it, then that's not to comply with the law, not to care about it. If that plight is one that you think is too bad to contemplate, then the trade-off is adverse to this protocol existing at all. But I would say, and with some peremptoriness, that that would be nonsense because just as there are negligent surgeons and negligent barristers, there are also negligent engineers and no profession made a real difference to something that really matters to relations between professionals and their clients. And that's a really trivial example compared to the much more socially important phenomena of engineers doing their work well and the awful consequences if they don't.

But it's from my personal experience and encouragement, I hope, to think that this is a protocol which will very much assist in the profession's explicit and deliberate project of increasing standards. And I am in respectful admiration of the enterprise and I wish you the very best of good fortune.

AB The value of the evening is to open up questions so I'll invite Bret to have a seat; I'll invite Christine back up, and I'll hand over to Alex who is going to moderate questions and answers.

AH Thank you, Ashley. Welcome, everyone. Now, I don't want take up any more time. I want you to get the real benefit of having this group in front of you and what an incredible talk by Bret Walker. I was riveted, possibly just because I was once a law student, so there's a tragic nerd deep in my heart that loved, loved studying law. So thank you.

00:27:08

So, questions, please.

QF Hi, Bret. What's...

AB There's a microphone there.

QF Thank you. The point you made about widely accepted, what's the sort of feeling or measure of when does this protocol deemed to be widely accepted?

BW I mean this seriously, that is, I hope that never has to be established in a court, and it's not an unrealistic hope. These things can, as it were, just become part of the furniture quite quickly; I hope that happens here.

But the first time, there has to be a test of it, and I suspect it'll only happen once or twice. The person, probably the defendant's lawyers, maybe the plaintiff's lawyers, but probably the defendant's lawyers, who calls for the evidence to say, for example, that it's not every risk that has to be chased down because you would never finish. It's only those which I suggested should be called realistic risks, that's what is widely accepted by peer professional opinion, etc.

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You'd probably need to have really all the professional engineering associations, at least one, probably more, engineering academics, and probably something like a contractors' association or the like, to be able to say that this is a frequently referred to document, the ideas in which are common currency among engineers, their customers, their insurance brokers, etc., etc.

It would be quite a laborious exercise the first time. Alas, I was involved, as quite a few of us were, when provisions like 5-O were being negotiated, and it was one of the provisions about which there was some foreboding that it would generate dispute that would enrich only lawyers and, believe it or not, the lawyers like myself who were involved in devising such provisions, didn't think that was a good thing, they thought it was a bad thing.

But it's not really come to pass. There's no track record at all so far. One thing I can say is that it would be very difficult for someone, probably plaintiffs, to show that this is irrational; that this protocol is irrational.

QF Thank you.

QF One of the things that when we were developing this protocol was the concept of the possibility that in the future our system, which is adversarial, could develop into a system whereby a competent engineering witness could be called rather than competing engineering experts. What would be your feeling about that?

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BW This is not unknown already in a number of fields. In the family court which is not as different from engineering as you might think, that is, expertise is involved and difficult decisions have to be made about which opinions can differ.

There's already quite often single experts. The long-established but little used device of setting lay assessors, and only the lawyers can get away with calling them laymen; they're always there because they're technical and expert, actually. It's the lawyers who are the real laymen. Circle lay assessors are used in a way that obviously gets away from this idea of the battle of experts in the adversarial sense.

Experience, so far, teaches that there are some issues where it's impossible to have a fair trial without both sides being able to call their own expert evidence. It's difficult to say how you select in advance those cases. One of the problems for us lawyers and at federal level under the constitution is giving power to the side to somebody who's not a judge is not possible, by and large; that's a gross oversimplification of some complex constitutional law. But you can't actually say half this case is going to be determined by Dr X, and least not if it's in federal jurisdiction.

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At common law there have been referrals to experts for over 150 years, probably longer than that. And so my own view is that moving away from adversarial gladiatorial contests between experts is by and large a good thing, but I wouldn't hold your breath on it being accomplished any time soon.

There's already quite a lot of single expert stuff still around.

AH Ready for another question. Ted? Ted and then Alex.

QF Ted [unclear] Sydney. A quick question. I'm very comforted about your thought about exceeding standards not just following standards, and the need to be better than just following rules, which brings me to the question of innovation in the sense that one of the key words [unclear]. And I'm wondering how we're going to go about that because many contracts now require a clause that you will be innovative, they are written into the contract because contracts, by reference, the services contract might go with the building contract.

I'm just wondering how we're going to see a test case on failing to be innovative in an engineering sense. I do suggest to you that engineers write computer codes as well, which can destroy thousands of lives in a second, or disrupt entire industries. So I'm interested in having your feedback about how innovation can be protected and supported, which is one of the key things behind [unclear] engineers going through [unclear]. When this case of innovation comes up, what will be the failing to innovate; what will be the argument?

BW I hope I'm still in practice when it does because it's very interesting. A contractual promise to keep thinking and making suggestions for improvements, to innovate, if you like, I've come across in quite a few of the engineering projects that I've been a lawyer in. I've never yet seen anyone suing contract for a failure to do so; the arguments have tended to be about other things, such as whether the client has some correlative obligation to give you enough space to do so, to let you innovate.

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But the contract is not going to be... the contract doesn't describe the whole of the fight. The common law of negligence, I think, is rather ill-adapted to blaming someone, holding somebody negligent for not innovating. And one of the reasons why I'd like to be in practice in this case is because I want to argue with the High Court, I don't care what side, because I think there is a lot of unfinished business as to what happens somebody's taken on, for a fee, a contractual assignment, and later on somebody else comes along and says you should have done something else; you should have done something else.

My own view is that negligence as well be constrained by what it is you're asked to do, which is one of the things this protocol really well brings to the fore; what have you been asked to do and what are the realistic risks of it, not only to the contract parties but, in the most famous engineering case in the High Court, the people who will be dancing on the stage for which you were the structural engineer.

Well, now, a failure to innovate will often involve, it seems to me, the imposition of an obligation said to be necessary in order to supply reasonable care which was beyond the contemplation of people when they went into the contract. You don't complain about somebody failing to innovate by failing to do something which is really obvious because the really obvious [unclear] are what's already stipulated on the contract.

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So my view is that that will be a very difficult case for anyone to run in negligence, difficult for a plaintiff to run in negligence. It might be dead easy in contract but, of course, it's in contract where the consequences can be managed in advance; put a limitation clause in or an exclusion clause, limit the damages.

In my experience, it won't be... this won't be either spurred or stunted by fears of liability and negligence. In my experience of those clauses, it's sharing rewards, usually by taking a slice of the saving, is the way in which most of those clauses, in my experience, have been practically useful. And so rather than threaten people with liability which usually doesn't work because when people sign their contract they're not thinking about being sued. Having a provision whereby they're either invited to or

actually required to consider innovation and they're given a spur that savings either directly in costs or indirectly in shorter contract time, can be shared as an incentive to those who come up with good ideas. That is far more likely, I think, to characterise the feel.

But I agree with you, there will come a time when everything else will fail and parties will be in dispute and the court will be asked to decide can you be held liable in negligence, that is, for failure to take reasonable care by not innovating. And I suspect the answer will be no, that reasonable care is most unlikely to involve what I might call the routine need to be cutting edge. I think that will be difficult.

I must say, when I did the ferries' enquiry, one thing I worked up as a... became a bee in my bonnet, was I didn't want any cutting edge engineering at all. I wanted really stock standard, off-the-shelf stuff where, if you're lucky, you get your spares from Bunny's [?].

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So innovation has its big risks technically, you know that much better than I do. And so it's not obvious to me that we common lawyers will say reasonable care involves building a new spaceship when a Cessna prop driven will do.

CK Wow. Alex.

AP Alex Page. I was the 2004 national president of Engineers Australia at a time when we did have a strong push to try and get Engineers Australia on board. We did have a lot of pushback in terms of some of the provisions of the rules... of the code as it was in version two. I was delighted to hear some of the members [?] that are being made which I think will ameliorate a lot of the concerns that one had.

From an engineering practice point of view, I wonder whether you'd comment as to whether this code could be usefully used, or appropriately used, in dealing with matters of professional ethics in terms of practice of professional engineers within the profession as a measure of the standard that ought to be complied with.

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BW The short answer is yes. It's not completely so, that is, it's not every part of the protocol that lends itself to what I call a genuinely ethical discourse but a hell of a lot of it does because I would have thought that the ethics of engineering particularly includes your peculiar capacity to kill people, like doctors in that area.

And I think that all professions should be careful not to treat ethics as being in a different, totally different, area of consideration from what I'll call professional standards of care, customer care, if you like. The truth is there's a massive overlap.

Ethics is more than just safety, obviously, for engineers, as for lawyers and doctors, it also involves honesty. But it does seem to me that this protocol is admirably suited, without any need to change it at all, to be picked up, very largely, as a large component of that which an ethical engineer should know and do.

AB I'll add a word or two. Those who have been on the PPI journey... PPIR journey, for some long time have heard, those in the project team talk about the three legged stool with one leg being competence, what the engineer learns at university and learns in their early years of formation as an engineer. Ethics, which is that moral dimension and performance, which can be retrospective or prospective and that model is well embraced now by Engineers Australia.

In this month's The Chemical Engineer, the magazine that gets sent out from the UK, [unclear] chemical engineers, there's a really brilliant article in the back. It covers ethics and it blends competence, ethics and performance all in one really brilliant article. It included an example from 1981 when a platform in a hotel in Kansas City, Missouri, collapsed and over one hundred people were killed. And I had just seen the article a couple of days ago, preparing for this.

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I think, as we go forward in time, we'll continue to develop and sequester pieces of this but certainly it blends through all three and in our professional work there's much to be learned from recognising the lessons of the past failures and listening to the wisdom of those who have practiced for so long before us.

So, for those that are younger engineers in the room, it's good advice.

AH Mark.

QF Thanks, Ashley. I just wanted to react to that comment because that example of the Kansas City hotel, sorry, I should introduce myself. I'm Mark Smith, I work for Transport for New South Wales, the asset standards authority. Our role is to... we're the holder of the engineering and governance and standards for transport, and we also deploy a thing called the authorised engineering organisation model, which is a means by which we ensure that supplies to transport can be self-assuring.

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So we look at the competency and the quality management systems of proponents relative to the scope and the reason I'm here today is the actual... the PPIR protocol sings a very similar tune to the AEO model. When we talk to proponents or potential AEO candidates, we actually mention PPIR. We don't prescribe it but we point them in the direction of PPIR as a model for attaining AEO status with transport.

The reason I wanted to comment actually is we use that very same model, example, sorry, of the Kansas City hotel disaster which killed many. We use that in our... when we talked about assurance and when we talked about the engineer's ability or requirements, sorry, to assure.

And that's actually quite a telling example because it was a mod, modification that was made that was signed off by an engineer and that engineer actually went on film and apologised for killing the 30 or 40 people that ended up dying in that particular instance. And, of course that individual faced legal action and never worked again and probably... the quality of life of him and all the families that were affected by that tragedy was indescribable.

But it was a really good example of changes that were made throughout the life of that particular asset. He designed a really reliable asset and he oversaw that design but he had a responsibility for that design, carriage of the design, right through the asset life. And at the point of construction there was an innovation which saved money, incidentally, which actually compromised the structural integrity of those platforms.

And a lot of our message, when we talk to the AEOs and people who want to work with us, is to assure themselves, not only for the product or the service they're providing, but for the whole of the life of the asset.

So that, in many ways, is a great example. I'd actually like to look at that article you pointed us to. We use that as an education piece. Thank you.

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AH Very good. Well, on that note, I think that's, sorry, Christine, did you want to add something.

AH I believe we're really, really close to time. We are going to have some drinks. So, please, if you have any burning questions, please stick around and ask those. And please join with me in thanking our panel, Ashley, Christine and, in particular...

00:47:19