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A random selection – Choosing samples for inspection

By Michael Ogus

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Experts are frequently asked to provide opinions on projects where there are defects in multiple locations. In these circumstances, it is often not feasible to inspect every location and sampling is proposed as a reasonable basis for assessment.

The advantages of sampling are clear. The parties can quickly clarify the issues and quantum of the defects without having to inspect in every location. Appropriate sampling helps to limit the costs of expert evidence to a reasonable level, as required by the court in pre-action proceedings.

The process by which sample locations are selected, however, is not without its pitfalls.

A selection process based only on expediency or practical criteria, such as avoiding disruption to occupants; choosing only locations where access is straightforward on the grounds of safety or cost; or only opening-up parts of the works that can be reinstated with minimum time, cost and damage, may result in a range of samples that will not allow the court fully to understand the issues.

A selection process based purely on these criteria is unlikely to persuade the court that the range of selected samples is adequate. For example, Experts often encounter situations where details that should be identical have been constructed by different teams or different sub-contractors, leading to variations in workmanship. Such variations may be missed if too few samples are taken.

Whilst practical aspects must be considered, it is important to remember that the overriding purpose of expert evidence is to assist the court.

Guidance was provided by the court in the case of **Amey v Cumbria County Council**. [1] Here the contractor had repaired and maintained the county's road network over a seven-year period. The area of roads repaired during that time ran into several million square metres with instructions running into the tens of thousands. The contract was terminated and Amey started proceedings to recover sums deducted from a payment. Cumbria counterclaimed alleging that some of Amey's work was defective.

The Council relied on two types of statistical sampling; probability sampling and non-probability sampling. The Court considered whether this was sufficiently random and free from bias to be relied upon.

HHJ Davis accepted that it was impractical to take core samples from every location where defects were alleged because of the sheer number and geographical spread of the locations. Also, some of the earliest repairs could not be located because of subsequent re-patching or lost records. The judge agreed that the council could in principle rely on evidence gathered from sampling.

> *"I accept Cumbria's primary submission that it would have been quite impracticable for it to have visually inspected and/or undertaken core testing to all of the patches laid by Amey over the duration of the contract …"*

He continued -

> *"… there is no principle of law nor a statistical theory that a claim or proposition can only be established by statistically random sampling. I accept that it is perfectly open to a claimant to seek to establish a claim by reference to representative sampling…"*

However, he went on to say that as some of the samples were not genuinely random it was not possible to extrapolate the percentage of defective work claimed.

The judge was also critical of some of the aspects of sampling that Cumbria and its experts relied on. He pointed out that the sampling had been conducted over a long period and that variations in the age of the patching had not been adequately considered. Sample locations were selected using GPS. This produced a bias towards newer samples because works carried out before the introduction of

GPS could not be located. Inadequate consideration was given to the size and composition of the sample that was tested or to variables, such as weather conditions at the time of the works, drainage and foundation issues and geographical area. Log sheets showed that insufficient time had been allocated to inspect, record and photograph the defects. The judge commented that this time pressure may have led to errors in the process. There was a concern about the quality of the inspections which were described in some instances as "*perfunctory*" and contained a number of assumptions. Because the inspection sheets were poorly designed and compiled under considerable time pressure it was doubtful whether the experts or court could rely on them. HHJ Davis concluded -

> *"… in my view Cumbria has failed to demonstrate that the sampling exercise undertaken on its behalf in this case is a sufficiently reliable exercise to justify the court in making the finding as against Amey …"*

So, the lessons are clear. Whilst the courts are prepared to accept that sampling can be used as the basis to advance a claim, care must be taken at the outset to ensure the selection process and methodology is given proper consideration and is sufficiently robust, random, widespread and free of perceived bias to withstand judicial scrutiny. Wherever possible, the sampling exercise should be agreed between the parties to assist in overcoming later objections.

[1] Amey LG Ltd v Cumbria CC [2016] EWHC 2856 (TCC) (11 November 2016)

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Fire Safety Record Information – A consideration in the light of the review of the Building Regulations

By John Gouldsmith

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Part 8, section 38 of the Building Regulations 2010 for England and Wales sets out the requirements regarding Fire Safety Information. [1] It states that:

> *"(2) The person carrying out the work shall give fire safety information to the responsible person [2] not later than the date of completion of the work, or the date of occupation of the building or extension, whichever is the earlier.*
>
> *(3) In this regulation —*
> *(a) "fire safety information" means information relating to the design and construction of the building or extension, and the services, fittings and equipment provided in or in connection with the building or extension which will assist the responsible person to operate and maintain the building or extension with reasonable safety;"*

Appendix G to the current edition of Approved Document B Fire Safety Volume 2, ("AD B V2"), gives guidance regarding the kind of information that should be provided. In addition, Section 6 and Annex A of BS 5588-12:2004, *Fire precautions in the design, construction and use of buildings – part 12 Managing fire safety*, require that there should be a "*fire safety manual*" provided to a "*fire safety manager*". Guidance for the content of the fire safety manual is set out in Annex A.

The draft consultation version of AD B V2 [3] contains a new section, Section 19, which is dedicated to Fire Safety Information. This broadly repeats the guidance of the current ADB V2, except that reference to *Annex A, Fire safety manual*, of BS 5588-12 is omitted and section 9 and Annex H of BS 9999: 2017 *Fire safety in the design, management and use of buildings – Code of practice* are referred to instead as guidance for complex buildings. This is an interesting and potentially significant change of tack because BS 9999, which the current version of AD B V2 does not refer to, includes at Section 4 recommendations for "*Designing for the management of fire risk*".

Following an 'AD B' approach to design may imply, therefore, that the building or premises have been designed on the basis that they will be managed in accordance with BS 9999. This is a subtle but significant change of emphasis and seems to imply that if the building owner/occupant does not intend to manage the building or premises in accordance with BS 9999 then this should be made expressly clear at key design stages and at the issue of Fire Safety Information.

Elsewhere in the safety landscape, the Construction (Design and Management) Regulations 2015, ("the CDM Regulations") require a Construction Phase Plan and Health and Safety File, which are defined at Regulation 12, which states:

> *"1) During the pre-construction phase, and before setting up a construction site, the principal contractor must draw up a construction phase plan or make arrangements for a construction phase plan to be drawn up.*
> *…*
> *(3) The principal designer must assist the principal contractor in preparing the construction phase plan by providing to the principal contractor all information the principal designer holds that is relevant to the construction phase plan including —*
> *(a) pre-construction information obtained from the client;*
> *(b) any information obtained from designers under regulation 9(3)(b).*
> *…*
> *(5) During the pre-construction phase, the principal designer must prepare a health and safety file appropriate to the characteristics of the project which must contain information relating to the project which is likely to be needed during any subsequent project to ensure the health and safety of any person.*
> *…*
> *(10) At the end of the project, the principal designer, or where there is no principal designer the principal contractor, must pass the health and safety file to the client."*

Time will tell if and how the recommendations of "*Building a Safer Future*", [4] the review of the Building Regulations undertaken by Dame Judith Hackitt, ("the Hackitt Review"), will be taken up, and how the "*Golden thread of building information*" that the Hackitt Review refers to will be implemented, not only for High Risk Residential Buildings, but also for all buildings and premises subject to fire safety risk assessment.

The Fire Safety Information required by the Building Regulations, the Fire Safety Manual required by BS 9999 and the Health and Safety Information File required by the CDM Regulations all work to the same end; the safety of the person. How effectively they are all interwoven, coordinated and integrated and how rigorously they are applied on every project will be crucial to the successful implementation of the "*Golden thread of building information*" with its promise of a safer future.

[1] http://www.legislation.gov.uk/uksi/2010/2214/regulation/38/made

[2] As defined by article 3 of the Regulatory Reform (Fire Safety) Order 2005

[3] MHCLG Clarification of Approved Document B and Next Steps for Part B of the Building Regulations. A consultation paper 19 July 2018

[4] Building a Safer Future Independent Review of Building Regulations and Fire Safety: Final Report

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Experts in the dock - Recent criticisms of expert evidence

By Bart Kavanagh

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In three recent cases, ICI v Merit, [1] Riva v Fosters, [2] and Energy Solutions v NDA, [3] Sir Peter Fraser, who was recently designated as the Judge in Charge of the TCC, has criticised the provision of expert evidence.

In **ICI v Merit** Fraser J was critical of the way in which one of the experts: argued his client's case; dealt

with issues of fact and law; interpreted the contract; and failed properly to consider factual witness evidence. He was critical also of the joint statement produced by the experts, saying that he found it *"… a most unhelpful document."*

> *"The Joint Statement essentially amounts to a recitation of each expert's view, with the occasional exception where a minor item was in fact agreed. However, such items are few and far between."*

The judgment goes on to consider certain agreements that were made between the parties' surveyors during the course of the works and Fraser J criticises the expert's approach to these:

> "[The expert] *chose entirely to ignore these agreements and by doing so took a position on what is an issue of fact and law for the court, that it is not within the sphere of an expert witness to do. Nor did he simply ignore the agreements altogether. On some issues, he mounted arguments positively in ICI's favour against those agreements being applicable.*"

He was critical also of the way the expert dealt with a matter of fact and law regarding the method to be adopted in valuing the works, noting that the expert:

> *"… made it clear that he had adopted a different method of valuation to that included in the contract, and agreed by the parties, because he felt that to use the correct contractual approach would result in MMT being paid more money than it ought to have been."*

And stating that:

> *"It is not acceptable for an independent expert to decide that it is the correct approach to the contract, and wholly ignore the other approach – in other words, to decide for himself (and put some effort into persuading the court) that this was the correct interpretation."*

The approach of the same expert to factual witness evidence was also critically scrutinised:

> *"There was factual evidence from MMT's witnesses that the majority of the steelwork (…) was outside the building.* [The expert] *refused to accept this, and said this was a "common misconception". Given MMT's witnesses (…) were witnesses of fact and had been involved at the time, it is a surprise to me that [the expert] believed himself to be in a better position than either of them on matters of fact, or saw fit "not to agree" with their factual evidence on matters of fact."*

as was his preference for his own view over contemporaneous documents:

> *He took a view on most things, preferring his own even to other contemporary references, even those from the Project Manager. For example on preliminaries, when something* [the project manager] *had stated in a contemporaneous document was put to him, he said "That's what* [the project manager] *is saying. I must admit I would have formed a different view -- have formed a different view by looking at the documents."*

In **Riva v Fosters** the issues regarding the experts were largely to do with their inexperience as experts, although both were highly experienced architects. For example, one of the experts:

> *"… had not included the CPR Part 35 declaration in his report at all, which is a mandatory requirement and which was corrected by him overnight."*

This inexperience showed itself also when dealing with matters of fact:

> *He also did not really appreciate the correct approach to disputed evidence of fact, which can present some challenges for an inexperienced expert witness who must (of course) not decide which version of the facts they prefer.*

> [The expert] *said he had simply disregarded facts that were controversial. This means that considering alternative opinions depending upon the facts did not arise in the conventional sense.*

Whilst criticising the expert for straying into legal territory by providing his views on causation, Fraser J implicitly criticised his instructing lawyers by acknowledging that the instructions to the expert had encouraged this.

> *He gave his extensive views on causation, which matters do not require expert opinions, qualifications or analysis and which are matters for the court. Such evidence from an expert is inadmissible. This was not entirely his fault, however, as the questions he was asked could potentially have been interpreted as inviting this.*

In contrast to the experts in **ICI v Merit**, and despite his own admonishments, Fraser J "*… found both the experts of great assistance.*"

> "*… it was clear to me that both experts were doing their best genuinely to assist the court, and both realised that they had to be independent of the party that had instructed them.*
>
> *Their Joint Statement was also very useful. Both architects agreed that the Fosters' Scheme could never have been value engineered down to a value of £100 million.*"

In **Energy Solutions** Fraser J detected the effects of witness coaching and disparaged the results.

> [The expert] *adopted a style of giving evidence that became increasingly common throughout the trial for the majority of the witnesses for Energy Solutions.*
>
> *This was, at times, to avoid the question and embark upon something of a corporate presentation. The linguistic device adopted for this approach was, usually, to state that it was necessary to put a question "in context" and then embark upon an exposition that was essentially sketching out the Claimant's case, and avoiding giving a clear answer to sensible questions from* [counsel]. *I found this increasingly unhelpful.*

Conversely, at a subsequent hearing for which there had been little time for preparation, he found the evidence given by the same witness:

> "*… to be far more persuasive than it had been during the trial in November 2015. Perhaps the lack of time for extensive preparation, or witness training, was a good thing. Certainly where before there had been long pauses, requests to put matters "in context", careful consideration of questions and equally careful non-answers, on 26 July 2016 he answered promptly, candidly and openly, and I found what he had to say wholly convincing.*

It is not clear whether these comments reflect isolated incidents or provide a snapshot of the current general standard of expert evidence in the construction industry; perhaps under the influence of the rougher world of adjudication. Either way, these judgments should remind experts not to become complacent and should put them, and those who instruct them, on notice that the court expects, and will demand, rigorous adherence to the requirements and standards that are set out clearly in CPR Part 35.

[1] ICI v Merit Merrell Technology [2018] EWHC 1577 (TCC)
[2] Riva Properties and Ors v Foster + Partners [2017] EWHC 2574 (TCC)
[3] Energy Solutions EU Ltd v Nuclear Decommissioning Authority [2017] UKSC 34

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