



Pump
Court

SSE Generation v Hochtief Solutions [2018] CSIH 26

Design vs. Workmanship

Jessica Stephens QC

4 Pump Court

18 June 2019

Background – MJ Hojgaard

- Supreme Court Decision
- “Process” – reasonable skill and care; in accordance with published standards
- “Result” obligations – fitness for purpose; design life; etc.
- Unnecessary to interpret to determine which obligation was owed; can be co-extensive
- “Double Obligations”



“Double Obligations” - Problems

- Not good for D&B contractor
 - PII not available for strict performance/outcome obligation
 - No warranty from sub-consultants
 - No defence that design not negligent
 - No reduction for contributory negligence by employer



“Double Obligations” – How Avoided?

- Clear hierarchy clauses
- Limitation of liability to coincide with failure to exercise reasonable skill and care
- Exclusion of liability where reasonable skill and care exercised



SSE v Hochtief Solutions

- NEC2 contract for design and construction of hydro-electric plant
- Included 6km tunnel from reservoir sat high in mountains to Loch Ness via a power plant
- Option M – contractor was “not liable for defects in the works due to his design so far as he proves that he used reasonable skill and care to ensure that it complied with the works information”
- X15 in NEC3 and NEC4 of equivalent effect – burden of proof reversed in that employer is to prove negligence



SSE v Hochtief

- Hochtief was liable for loss or damage occurring within two years of takeover provided it was caused by a Defect
 - Part of works not in accordance with Works Information; or
 - Part of works designed by the contractor which is not in accordance with the Contractor's design which has been accepted by Project Manager
- Hochtief's design included Tunnel Support Methodology



Tunnel Support Methodology

- A fully lined tunnel had been considered and rejected on grounds of cost.
- TSM required inspection of excavated section of tunnel after boring.
- There were four categories of rock with pre-defined support that was to be provided depending upon rock conditions identified.
- Hochtief's geotechnical engineer (jointly with SSE's engineer) inspected each section of tunnel and agreed rock classification and necessary means of support that would be provided.



Tunnel Collapse

- Shortly after takeover the tunnel collapsed
- Hydro-plant production ceased
- Remedial works carried out
- Cost approx. £130m
- SSE claimed Hochtief liable as tunnel did not achieve 75 year design life
- Hochtief relied upon Option M



First Instance Decision

- Option M placed an important brake on liability
- Hochtief did not guarantee the works
- If SSE's interpretation was correct, Hochtief would owe an overarching obligation to provide tunnels suitable for their purpose => strict liability => rob Option M of meaning
- SSE had argued that Option M provides a limited defence to design defects but not implementation defects
- Court rejected that argument



Appeal

- On appeal, SSE succeeded by 2:1 majority
- Three judges agreed that tunnel collapsed due to a defect in the implementation of design.
- 2:1 split on whether Option M applied to implementation of design.
- Lord President (minority) said:
 - “What [geotechnical engineer] designated by way of HRT support is properly classified as part of the contractor’s design when considering Option M.”
 - “Engineering judgment was to be made at face of excavation”



■ Lord Menzies

- Option M is concerned with Defects – that is, Defects as defined in 11.2(15) ... it is important to keep in mind that in order to constitute a Defect there must be disconformity between the part of the works being considered and the Contractor's design which has been accepted by the Project Manager.
- Mr Taylor's classification of rock (and support to be constructed) was never approved by PM
- Mr Taylor's designation was implementation of design.
- Not a defect covered by Option M and limitation of liability did not apply.



■ Lord Glennie

- Defect was not due to the Contractor's design of the works but rather to the implementation of that design
- Option M is not engaged
- Defence of having used reasonable skill and care not available to Hochtief



Result of Appeal

- Design = not negligent
- Implementation = not negligent
- Nevertheless, Hochtief liable for tunnel collapse
- Harsh result?



Design v Workmanship

- Design Defects
 - Design professional's failure to produce an accurate and well coordinated set of construction drawings
 - Design contains an error or an omission (or both)
- Workmanship Defects
 - Construction/building not in accordance with contract documents – wrong materials used; wrong methods followed



Point of Distinction

- Unhelpfully, the Scottish appellate court did not identify any means of distinguishing between design, workmanship, or indeed implementation
- Design involves exercise of professional judgment; workmanship does not
- SSE v Hochtief introduced a new grey area of implementation of design that falls somewhere on the spectrum of defects with design at one end and workmanship at the other



Hochtief – design or workmanship

- Majority held implementation was not design (therefore workmanship to use traditional concepts).
- Traditional concepts are not appropriate to modern D&B contracts **but** remain two distinct aspects for purposes of liability, defects and insurance.
- What is implementation? Dictionary definition is putting design into effect or execution. But, execution = build and Hochtief did something else here to take the design to its execution.
- That something else is the inspection and classification of rock and identification of appropriate one of the four specified means of support



What is implementation, then?

- Implementation of the Hochtief scheme required specialist engineering input.
- It was design 'on the go' or, more accurately, design as and when key information was available (that information not being available at the outset without expensive further ground investigations).
- One option to a contractor without detailed knowledge of rock through which tunnel was to pass was to line tunnel; SSE rejected that on grounds of cost.
- Dynamic design as tunnel was bored was better, non-negligent option



Implementation

- True, contractor did not have free rein to design tunnel as it thought fit; the approved design was for one of four support methods to be designated when excavated tunnel was inspected.
- Not enough to render it as free of design in my view.
- Also inconsistent with likely commercial purpose of Option M – to reflect D&B distinction between professional team and build-only contractor (and likely also Hochtief's PII)
- Decision will go to UK Supreme Court



Issues and Impact

- D&B contractors PII will indemnify design activities
- Ordinarily limited to negligent conduct of professional activities/duties
- Typically restricted to negligent acts, errors or omissions
- Cover is not available for non-professional physical build works
- No PII for non-negligent implementation of non-negligent design but liability for failure of tunnel.



Issues and Impacts

- PII does not extend to fitness for purpose obligations
- Insurers likely to decline claims based on errors in implementation of non-negligent designs (whether negligence is alleged or not)
- Hochtief may have escaped liability pursuant to Option M had its design at the outset included specifically all support throughout the tunnel.
- Project costs are likely to escalate to obtain necessary information to produce fully specified design from outset



Risks

- D&B contractors face liability for uninsured and uninsurable risks
- Clients face exposure to uninsured and uninsurable risks that the contractor is not good to meet
- Insurers unclear whether PII should respond to claims for implementation or not.
- Clarity is required in both contract terms, employer's requirements and works information, exclusions and limitations and in policy wording to ensure no unexpected lacuna in expectations/cover.



Questions

