Issue Note: What's "*Design Risk*" and what does "*reasonable skill and care*" & "*fit for purpose*" mean?

1 Introduction

1.1 Generally, each Construction and Engineering (**C&E**) project commences with a concept which leads to the Employer instructing Architects/Engineers etc (**Design Professionals**) to develop into a design. A design and build Contractor, either in house or engaging a design subcontractor (**Design Subcontractor**), develops the design and builds the project.

1.2 At a high level the design process for a project appears straightforward, however, the reality is that the process is technical and complex. Understanding the legal risk that you have assumed in relation to a project's design, therefore, is the key to managing that risk and avoiding disputes while enhancing your prospects of success in the unlikely event that a disagreement crystalises into a formal dispute.

1.3 We discuss the above in detail below and for ease refer to the FIDIC 1999 Yellow Book (Design & Build) and the different Standards of Care/Performance that may apply to a Design Professional and a Contractor together with the Design Subcontractor it may instruct to complete the project's design and refer to some helpful leading UK cases on the issue.

1.4 Finally, we discuss the position in Civil Law jurisdictions and provide a Summary/Commentary which provides practical tips to assist you in assessing your Design Risk.

2 Design Risk: Responsibility/Obligations and Standard of Care/Performance

2.1 In short, Design Risk means the contractual risk that a party assumes in relation to a project's design failing to deliver the project's requirements as set out in the Contract. Such legal risk divides into: (1) Responsibility/Obligations and (2) Standard of Care/Performance.

Responsibility/Obligations

2.2 Generally, an Employer procuring a project under a FIDIC Yellow Book 1999 will instruct a Design Professional to convert its concept into a preliminary design which it includes within its tender documentation to procure a project.

2.3 In this context, the Employer provides several Contractors with the invitation to tender including a variety of documents which set out the project's purpose and, depending on the project and the level of detail the Employer wishes to provide, may include the (1) scope of works, (2) preliminary design, (3) specification and (3) performance and evaluation criteria.

2.4 The Employer awards the Contract to the preferred Contractor and these documents are incorporated into the final contract and the Contractor will either complete the design in house or instruct a Design Subcontractor to complete the same.

2.5 FIDIC's 1999 Yellow Book categorises the above as the Employer's Requirements and defines the same as follows:

> *"Employer's Requirements" means the document entitled Employer's Requirements, as included in the Contract, and any additions and modifications to such document in*

accordance with the Contract. Such document specifies the purpose, scope, and/or design and/or other technical criteria, for the Works." (SC/1.1.1.5)

2.6 Specifically, the Contractor "*…shall carry out, and be responsible for, the design of the Works*" (SC:5.1/Para.1) to achieve the project's purpose. In addition, the Contractor's "*design*" shall be prepared by "*qualified designers who are engineers or other professionals*" (SC:5.1/Para.1) and the Contractor warrants that "*his designers and design Subcontractors have the experience and capability*" (SC:5.1/Para.2) to complete the "*design"* of the Works (SC:5.1/Para.1).

2.7 Further, the Engineer has the right to reject the Contractor's "*proposed designer and design Subcontractor*" (SC:5.1/Para.1).

2.8 In addition, the Contractor following receipt of a "*Notice to Commence*" (SC:8.1), is required to "*promptly scrutinise Employer's Requirements*" (SC:5.1/Para. 3) and if it discovers an "*error, fault or other defect*" within the same it is required to notify the Engineer of the same (SC:1.9).

Standard of Care/Performance

2.9 If a Professional Designer's/Design Subcontractor's contract is silent regarding the standard of care/performance it must meet, when completing its design for a project, the law requires that he must demonstrate that he completed the design with "*reasonable skill and care*" only.

2.10 The above standard emanates from the Section 13 of the UK's Supply of Goods and Service Act 1982 together with the common law test for professional negligence. The latter is known as the "*Bolam Test"* and requires the Professional Designer/Design Subcontractor to work to the standard of a professional with the same "*special skill*" only and *"…it is sufficient if he exercises the ordinary skill of an ordinary competent man exercising that particular art…"* (Bolam v Friern Hospital Management Committee [1957] 2 All ER 118).

2.11 In this context, a Professional Designer/Design Subcontractor's performance is assessed objectively by reference to an ordinary competent professional designer, at the time the work was completed, only. He is not required to achieve a particular result and is therefore, not liable for errors/flaws in his design if he demonstrates that he has exercised the requisite skill and care in completing the same.

2.12 A "*fitness for purpose obligation*", however, imposes a higher standard of care/performance and constitutes an absolute obligation to achieve a specified result. In this context, the FIDIC 1999 Yellow Book provides that the Contractor is required to:

> "*...design... the Works in accordance with the Contract, and shall remedy any defects in the Works. When completed, the Works shall be fit for the purposes for which the Works are intended as defined in the Contract..." (SC/4.1/Para.1)*

2.13 In other words, the Contractor is effectively guaranteeing that its design and the completed Works will be "*fit for the purpose*" set out in the Employer's Requirements.

3 Different Standards / Same Contract

3.1 The Supreme Court's decision in *"MT Hojgaard A/S (Respondent)* (**MTH**) *v E.ON Climate & Renewables UK Robin Rigg Limited…* (**EON**)" ([2017] UKSC 59) indicates that it is possible that a contract may contain two standards of care/performance.

3.2 Specifically, EON and MTH entered a contract which required MTH to design, manufacture and install the foundations for wind turbines at two offshore wind farms at Robin Rigg in the Solway Firth. The contract stated that MTH should carry out the works so that they shall be "*fit for its purpose*" and included "*Technical Requirements*" which required the foundations to be designed in accordance with a international standard known as J101 and have a design life of 20 years.

3.3 The foundations failed and MTH agreed to complete the remedial works, however, the parties disagreed who should pay for the same. EON argued that MTH had breached its "*fit for purpose*" obligation. MTH argued that it had designed the foundations in accordance with the international standard J101 which qualified its "*fit for purpose*" obligation.

3.4 The Supreme Court held, provide by Lord Neuberger, that the contract should be construed using the ordinary rules of interpretation namely "*by reference to the provisions of the particular contract and its commercial context".* Further:

> "…*where two provisions of Section 3* [within the contract] *impose different or inconsistent standards or requirements, rather than concluding that they are inconsistent, the correct analysis by virtue of para 3.l (i) is that the more rigorous or demanding of the two standards or requirements must prevail, as the less rigorous can properly be treated as a minimum requirement. Further, if there is an inconsistency between a design requirement and the required criteria, it appears to me that the effect of para 3.l (ii) would be to make it clear that, although it may have complied with the design requirement, MTH would be liable for the failure to comply with the required criteria, as it was MTH's duty to identify the need to improve on the design accordingly…"*

3.5 In other words, the Supreme Court dismissed MTH's arguments on the basis that the design requirements were a minimum requirement only and it was, therefore, necessary to meet the overarching "*fit for purpose*" obligation which included the design criteria i.e. 20 years design life warranty.

4 Position under Middle East Laws

4.1 Countries within the Middle East, including Qatar, Bahrain, Kuwait, Oman and the UAE (**ME Countries**), adopt a civil law legal system of law and their respective codes (**ME Laws**) are generally silent regarding Design Risk as discussed above. Parties should of course be conscious of "decennial liability" which is a mandatory law and renders a Contractor and Engineer liable for partial or full collapse of the Works for 10 years following completion i.e. a guarantee (Qatar: Art. 711, Kuwait: Art. 692, Oman: Art. 634, UAE: Art. 880 and Bahrain: Art. 615 - 5 years only) – subject of a separate Free Issue Note.

4.2 ME Countries, however, procure C&E projects adopting the broad procurement methodology mentioned above using C&E contracts based loosely on the FIDIC standard form contracts which allocate the Design Risk to the supply chain.

4.3 Consequently, although the UK law is not binding in ME Countries, the logic and principles emanating from the same will assist Design Professionals, Design Subcontractors and Contractors mange the Design Risk in relation to their projects.

4.4 In addition, parties operating in ME Countries for which Design Risk becomes a formal "Issue in Dispute", may rely, depending on the circumstances, on several legal principles under ME Laws including: **(1)** Contract Formation (Qatar; Arts. 69 – 79, Bahrain: Arts. 29 - 68, Kuwait: Arts. 31 - 64, Oman: Arts. 69 – 90, and UAE: Arts. 129-148), **(2)** Freedom of Contract (Qatar: Art. 154(1), Bahrain: Art. 109, Kuwait: Art. 176, Oman: Art.121, and UAE: Art. 205(2)), **(3)** Contract Interpretation (Qatar: Arts. 169 & 170, Bahrain: Art. 125, Kuwait: Art. 193, Oman: Art. 165 and UAE: Art. 258), **(4)** Good Faith (Qatar: Art. 172, Bahrain: Art. 129, Kuwait: Art 197, Oman: n/a, and UAE: Art. 246) to identify and support their interpretation of the Design Risk in their contract.

5 Summary and Observations

5.1 In summary, the UK law indicates that if a Design Professional/Design Subcontractor is responsible for a project's design and the contract is silent, regarding the standard of care/performance, he is not required to achieve a particular result. Consequently, he is not liable for errors/flaws in his design if he demonstrates that he has exercised the reasonable "skill and care" of a competent design professional in completing the same.

5.2 In stark contrast, the ME Laws are generally silent on the risk, however, under the FIDIC Yellow Book 1999 the Contractor, regardless of the jurisdiction in which it operates, is responsible for completing the design of the Works, based on the Employer's design, which it guarantees will be "fit for the purpose" set out within the Employer's Requirements. The Contractor, therefore, is liable if the design of the Works includes errors/flaws which cause the Works to fail to meet the project's requirements/purpose set out in the Employer's Requirements.

5.3 The difference between the above legal risks and potential liability is vast. Design Professionals, Design Subcontractors and Contractors, therefore, should complete a comprehensive review of their contracts, regardless of the jurisdiction in which they operate, to ensure that they fully understand the Design Risk they are assuming.

5.4 In this context, parties should be mindful that Design Risk may exist in any Contract Document and that their Contracts may include vague and ambiguous terms, such as "*international best standards*", which are likely to lead to a formal dispute, relating to their Design Risk . Finally, parties should, where necessary, "pass down" the identical Design Risk to subcontractors and procure the appropriate insurance to cover the same.

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