



# CIOB

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**LEGAL SOLUTIONS**

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## *Understanding and Managing Design Risk on Projects is the key to Success & Avoiding Disputes*

Presentation to The Chartered Institute of Building  
(Middle East)

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Principal

C&E Legal Solutions

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- **Fully Regulated Boutique International Construction and Engineering (C&E) Law Firm**
  - Construction & Engineering Law only: Full range C&E legal advice - international projects across the globe
    - Over 35 years experience in construction and engineering industry – Subcontractor/Solicitor
- **Services**
  1. Contract Documents:
    - Draft Clear and Concise Contracts
    - Contract Reviews: Identify a contract's risk profile to assist Clients to understand and manage the risk
  2. Project Delivery - Outsourced Project Counsel (**OPC**):
    - Our OPC resource works closely with a Client's Project Delivery Team to provide specialist practical legal solutions at any stage of a project's lifecycle / avoid disputes / reaching their objectives
  3. Dispute Resolution:
    - Advise on litigation and all forms of alternative dispute resolution (**ADR**) to achieve the best outcome
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- Modern Day Work Practices: Agile Working / Global Reach

- **Team / Global Network**

- Principal: John Coghlan
- C&E Consult
  - Modern day work practices and leading legal technology provides access to experienced and highly skilled construction and engineering legal consultants that work on a “project by project” basis
- Local Law Firms
  - Strong relationships with key local law firms in all major jurisdictions including UAE
- Chambers: Construction and Engineering law
  - Strong relationship with the leading chambers - Identify the counsel best suits the Client’s needs
- Expert Service Providers (**ESP**):
  - Strong relationships with ESP (Quantum etc) – identify the expert best suits the Client’s needs
- **Equates to Genuine Added Value – Lean Business Model – Significant Cost Saving – No Compromise on Service/Advice**

# Structure

- Design Risk: FIDIC/1999 “*Plant and Design-Build*” - Yellow Book (YB)
  - Part 1
    - Obligations
      - Design Obligations
      - Duty to Notify
  - Part 2
    - Standard of Care / Performance
      - Reasonable Skill & Care
      - Fitness for Purpose
- UAE Law (ref: Bahrain, Kuwait, Oman & Qatar)
  - Civil Law / Contract & Mandatory Laws
- Assessing Design Risk / Importance of Insurance
- Conclusion
  - Questions & Answers

# Design Risk: Meaning

- What is Design Risk?
  - The legal risks (contract/governing law) that a party assumes in relation to a project's design failing to deliver the project's requirements as set out in the Contract – construed as a whole
- Divides into:
  - Part 1: Obligations
    - The obligations (contract/governing law) which set out the aspects of the design of the Works the Contractor is physically required to complete e.g., Final Design / Shop Drawings
  - Part 2: Standard of Care / Performance
    - The standard (contract/governing law) which the Contractor's performance is required to meet e.g., design and build the Works, "*fit for purpose*"

# Part 1: Obligation (1)

- What are the Contractor's Design Obligations?
- Contractor obliged to complete the "design of the Works" (SC/5.1)
  - Prepared by "*qualified designers*" - Contractor "*warrants*" that "*his designers and design Subcontractors have the experience and capability*" to design the Works in accordance with the Contract
- Mindful - Engineer has the right to reject the Contractor's: "*proposed designer and design Subcontractor*"
- Employer's Requirements: Defined as:
  - "*...the document entitled Employer's Requirements, as included in the Contract...Such document specifies the purpose, scope, and/or design and/or other technical criteria, for the Works.*" (emphasis added) (SC/1.1.1.5)
- Fundamental Document: Specifies: "*purpose*" "*scope*" "*design*" & "*technical criteria*"

# Part 1: Obligation (2)

- Is the Contractor required to notify the Engineer of errors in the Employer's Requirements?
- **Yes** – Duty to Notify - Two Different Points in Time
- **First:** Following Engineer's Notice to Commence the Works - Contractor is required to:
  - “...scrutinise the Employer's Requirements (including design criteria and calculations)...[within] the period stated in the Appendix to Tender, calculated from the Commencement Date” (SC/5.1)
- If the Contractor identifies any “*error, fault or other defect*” in the Employer's Requirements. Contractor's notice and consults the Parties - if Parties unable to resolve the error the Engineer is required to “*determine*” on the facts whether:
  - “...an experienced contractor exercising due care would have discovered the error, fault or other defect...when examining the...Employer's Requirements before submitting the Tender”
- If Engineer's determines Contractor should have “*discovered*” the errors - Contractor not entitled to a Variation e.g., no EOT & no additional Costs

# Part 1: Obligation (3)

- **Second:** Duty to Notify

- During Project's Lifecycle

- If the Contractor:

*“...suffers delay and/or incurs Cost as a result of an error in the Employer's Requirements, and an experienced Contractor exercising due care would not have discovered the error when scrutinizing the Employer's Requirements under Sub-Clause 5.1 [General Design Obligations – Tender Stage], the Contractor shall give notice to the Engineer...” (SC/1.9)*

- Engineer reviews the notice/facts and provides a Determination (SC/3.5)
- If Engineer applies the “*experienced Contractor*” test and determines that the Contractor would not have “discovered” the errors - entitled an EOT and additional Costs - subject to SC/20.1 Contractor's Claim
  - Engineer to provide a “*fair determination*” (SC/3.5)



## Part 2: Standard of Care (1)

- What standard of care applies to the Contractor's performance i.e., its Design?
- Two different standards of care – different meaning
- **First: “Reasonable Skill & Care”**
  - Emanates from UK – test for Professional Negligence
    - If the Design Consultant provided the service e.g., outline/preliminary design “...exercising the ordinary skill of an **ordinary competent man exercising that particular art...**” then the Design Consultant's performance has met the standard of care i.e., no breach of duty/contract (**Bolam Test**)
- Design Consultant, adopting the above, is not required to achieve a particular result

## Part 2: Standard of Care / Performance (2)

- **Second** “*Fitness for Purpose*” - Higher Standard of Care
- YB

*“The Contractor shall design, execute and complete 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)*

- Constitutes a Contractual Guarantee
  - That the completed Project will meet the Employer’s requirements – fails it constitutes a “**breach of contract**”
- Contract may include a range of different “*standards of care*”
- Leading UK Case:

*“MT Højgaard A/S v E.ON Climate and Renewables UK Robin Rigg East Ltd (Supreme Court)”*

## Part 2: Standard of Care (3)

- MTH V EON (Supreme Court) (Cont.)
- Supreme Court tasked with construing the various documents which constituted the Contract
  - **General Conditions** Contractor complete the “*design*” with “*due care and diligence*”
  - **Technical Requirements** required the Works to be “...*designed for a minimum site specific ‘design life’ of 20 years...*”
  - Court Held:
    - More rigorous or demanding of the two standards or requirements applies
    - The less rigorous treated as a minimum requirement
- Liability = approximate GBP 25 m to rectify the defects

# UAE Law (1)

- Generally UAE Law Silent
  - Design Risk / Standard of Care
- UAE Law / Civil Code (1985)
- UAE Law Recognises
- Contract Formation: Art. 129 -148 includes:
  - UAE Art. 129:

*“...The necessary elements for the making of a contract are:-*

*(a) that the two parties to the contract should agree upon the essential elements*

*(b) the subject matter of the contract must be something which is possible and defined or capable of being defined and permissible to be dealt in; and*

*(c) there must be a lawful purpose for the obligations arising out of the contract...”*
  - Similar Contract Formation Principles: Bahrain: Art. 29 - 68, Kuwait: Art. 31 - 64 , Oman: Art. 69 - 90 and Qatar: Art. 69-79

## UAE Law (2)

- Freedom of Contract: UAE Art. 205(2): Parties free to agree C&E Contract's terms  
**UNLESS:**

*“...the **law prohibits** dealing in a thing or if it is **contrary to public order or morals**, the **contract shall be void**...”* (similar principle Bahrain: Art. 109, Kuwait: Art. 176, Oman: Art. 121 and Qatar: Art. 154)

- Contract is Law of the Parties - must be performed: UAE Art. 243

*“... With regard to the rights (obligations) arising out of the contract, each of the contracting parties must perform that which he is obliged to do under the contract...”* (similar principle in (Bahrain: Art. 128 , Kuwait: Art. 196, Oman: Art 155 and Qatar: Art. 171)

- UAE Courts / Arbitral Tribunal - In principle and practice apply the Terms and Conditions of a C&E Contract
- Leads to the Conclusion
- Parties are free to agree the Design Risk in C&E Contract
- **Contract is King?** However...Qualified?

# UAE Law (3)

- Mandatory Laws
- Laws that a Contract may not exclude
  - UAE Art. 880: Decennial Liability
  - Contractor and Engineer guarantee the structural integrity of the Works for 10 years following completion (Kuwait: Art. 692, Oman: Art. 634, Qatar: Art 711 and Bahrain: Art. 615 - 5 years only)
  - UAE Art. 882: *“Any agreement the purport of which is to exempt the contractor or the architect from liability, or to limit such liability, shall be void.”*
    - Not all Mandatory Laws are identified with an express reference

# Identifying & Assessing Design Risk (1)

- Optimal Strategy: Review the Contract as a whole
- **First:** Identify Your Design Obligations:
  - Exactly what are you required to complete and provide?
  - Remember clauses and requirements may be ambiguous/vague
- **Second:** Identify & Understand the Standard of Care
  - General: “*Skill & Care*” – obligation to exercise reasonable “*skill and care*” only – objective analysis
  - Higher: “*Fit for purpose*” - obligation to achieve a result = contractual guarantee –
  - Be careful remember *MTH* - Standard of Care - in any Contract Document

# Importance of Insurance

- Professional Indemnity Insurance / Decennial Liability Insurance
- Should match the Design Risk you assume under the Contract/Governing Law (UAE etc)
- Ensure the policy covers the complete & correct risk
- PI & DL Insurance
  - Good method of risk allocation
  - Involve your insurance company as early as possible



# Conclusion

- Design Risk: FIDIC/1999 Yellow Book
  - Part 1
    - Obligations
      - Design Obligations
      - Duty to Notify
  - Part 2
    - Standard of Care / Performance
      - Reasonable Skill & Care
      - Fitness for Purpose
- UAE Law
  - Civil Law / Mandatory Laws
- Assessing Design Risk / Importance of Insurance
- **Key to Success: Team Work / Instruct Experienced C&E Solicitor ASAP – Sooner the Better**

# Benefits of Working with C&E Legal Solutions

- Fully Regulated Boutique International Construction & Engineering Law Firm
  - Construction & Engineering Law only
    - Over 35 years experience in C&E industry
    - Over 20 years experience of working as a Solicitor (Partner/Managing Partner) on large international infrastructure projects across the globe
    - Comprehensive understanding of how UAE Law / ME Laws impact a C&E Contract
    - Advise on Projects from inception to completion and all forms of ADR including Arbitration
    - Cost Effective
      - Flexible Fee Structures Including Fixed and Capped Fees for Defined Scope of Works

**Delighted**

**Discuss Design Risk Issues**

**Organise a *Complimentary Strategic Legal Consultation***

# Thank You: Any Questions?



# Contact

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### ***3 Top Tips for Contractors to Understand and Manage the Design Risk on their Projects under FIDIC Contracts, English and Middle East Laws***

#### **Introduction**

If you fail to understand the Design Risk in your Construction and Engineering (C&E) contract (Contract), from the start of your C&E project, you will not be able to manage the risk throughout the project's lifecycle. This will cause an increase in your scope of works, which in turn will significantly delay the project and cause you to incur substantial additional cost and will most likely lead to a costly formal dispute. We discuss the 3 Top Tips to enhance your understanding below:

#### **Top Tip 1: Identify the Design Risk**

Generally, an Employer procuring a Project under a FIDIC Design & Build Contract 1999 (Yellow Book), will instruct a Designer to convert its initial concept into a Project's preliminary design. The Employer will award the Contract to its preferred Contractor and the Contractor will be required to complete the Project's Design, based on the Employer's preliminary design, and Build the Works to meet the purpose set out in the Employer's Requirements.

Specifically, the Contract will include the Contractor's Design Risk which consists of two separate legal risks/obligations:

1. **Party Responsible:** The Contract should indicate which party is obliged to complete the Project's Design i.e., responsible for producing the Design.
  - a. Under the Yellow Book 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 as set out in the Employer's Requirements (SC:1.1.1.5).
2. **Applicable Standard of Care:** The Contract should indicate which standard of care (SOC) applies to the Project's Design and completion of the Works.
  - a. Under the Yellow Book the Contractor "...shall design...the Works in accordance with the Contract...When completed the Works shall be fit for the purpose as defined in the Contract..." (SC:4.1/Para. 1).

Contractors should note that the above "fitness for purpose" obligation constitutes an *absolute obligation*, and the Contractor is effectively *guaranteeing* that its design and the completed Works will be "fit for the purpose" set out in the Contract.

A "fitness for purpose" obligation is incredibly onerous when compared with the lower SOC known as "reasonable skill and care", which is assessed with reference to an "ordinary competent" Designer's performance and is *not an absolute obligation/guarantee* that the design and the completed Works will meet a specific result – far easier to comply with this SOC/obligation than the "fitness for purpose" obligation. Contractors should be mindful, however, that their Contract may include the two different

SOCs mentioned above, as these can exist, using vague ambiguous wording, in any Contract Document including the Schedules.

In our experience, therefore, it is vitally important that Contractors review their Contracts and identify the aspects of the Project's Design the Contractor is required/obliged to complete and the applicable SOC. It's rarely straightforward and, if Contractors have any doubt, they should obtain detailed legal advice from an experienced construction and engineering solicitor/lawyer.

### **Top Tip 2: Manage the Design Risk Identified**

Once a Contractor has identified the Design Risk in its Contract it will be able to manage the same throughout the Project's lifecycle to protect its rights and position. Specifically, Contractors should ensure they understand fully how their Contract operates including its dispute resolution procedure (DRP).

Clause 20 of the Yellow Book sets out its DRP and is titled "*Claims, Disputes and Arbitration*". Under SC/20.1 of the Yellow Book, the Contractor has a right to raise a "*Contractor's Claim*" if it considers that it is entitled to additional time and costs for a variety of reason including if the Engineer instructs (SC/3.3) the Contractor to complete a Variation (SC/13.3) to the Works including the Project's Design. If the Variation, however, causes critical delay to the Project, the Contractor has a right to an extension of time (SC/8.4(a)) and an adjustment to the Contract Price (SC/13.3).

The Contractor should of course be mindful that it is required to notify the Engineer no later than 28 days from the date it became aware or should have become aware of any events e.g., informal variation to the Project's Design, causing critical delay to the Works and/or additional costs, failing which the Contractor loses its right to claim for the same (CI./20.1).

The DRP is incredibly important, and Contractors should follow the DRP strictly to ensure that they are not "*time barred*" from raising a claim for any changes/variations, formal or otherwise, to the Works including the Project's Design.

If Contractors are unsure of how to manage the Design Risk in accordance with their Contract's terms, including whether they have submitted the relevant Notices, formal or informal, to protect their position, they should obtain detailed legal advice from an experienced C&E Solicitor/Lawyer to advise on the same.

### **Top Tip 3: Particularise and Substantiate Your Claims**

The Yellow Book, similar to other FIDIC contracts, places the Contractor under an obligation to particularise and substantiate its "*Contractors Claims*" (SC/20.1), which is identical to its obligation to satisfy the "*burden of proof*" in a formal dispute i.e., Arbitration (SC/20.6).

The Contractor, therefore, should ensure that it sets out the "*...full particulars...*" of the legal basis of its claims together with the "*...contemporary records as may be necessary to substantiate any claim...*" (SC/20.1).

Contemporary records constitute contemporaneous evidence of the progress of the Works as a matter of fact and carry the most “legal weight” to substantiate a Contractor’s Claim under SC/20.1 and/or a formal “...dispute...” under the Yellow Book’s tiered dispute resolution mechanism, which concludes with “Arbitration” (CI/20.6).

To be clear, the importance of a Contractor particularising and substantiating its claim using “...contemporary records...” cannot be overstated – if the Contractor fails to particularise and substantiate its *Contractor’s Claim* or any other claim in a formal dispute, including Arbitration, it will lose the claim!

In this context, if Contractors are unsure as to whether their claims are fully particularised and adequately substantiated, with contemporaneous evidence, to prove their claim they should obtain detailed legal advice from an experienced C&E Solicitor/Lawyer to advise on the same.

In our experience the sooner you instruct a C&E Solicitor/Lawyer to assist on your C&E Project the better – it saves time and cost in the long run!!!

### **Conclusion**

We hope the 3 Top Tips above enhance your understanding of Design Risk and provide a good introduction as to how to manage the risk in your C&E Contract throughout the Project’s lifecycle. There is of course a myriad of additional points which require careful consideration, and these will differ in each C&E Contract, which are generally large complex documents, and may well use vague and ambiguous language to allocate Design Risk in any Contract Document e.g., Schedules.

We advise Clients in relation to all C&E Legal Issues on projects across the globe, in both Common Law and Civil Law jurisdictions. Specifically, we recently advised an Engineer on Design Risk in relation to an amended NEC contract on a complex project in England (see the Supreme Court’s decision in “*MT Højgaard A/S (Respondent) (MTH) v E.ON Climate & Renewables UK Robin Rigg Limited... (EON)*” ([2017] UKSC 59).

Further, we recently advised a contractor on Design Risk in relation to a heavily amended FIDIC contract on a high value complex claim in the Middle East (ME). Generally, ME Laws are silent regarding Design Risk, however, Contractors operating in ME Countries where Design Risk becomes a formal “*Issue in Dispute*”, may rely on several legal principles under ME Laws including: **(1) Contract Formation (2) Freedom of Contract (3) Contract Interpretation (4) Good Faith**, to run robust successful arguments.

To assist Contractors, therefore, we have designed a **Complimentary Webinar Titled: [Understanding and Managing Design Risk is the Key to Success & Avoiding Disputes on your Project](#)**, which will:

- Enhance your understanding of the Obligations relating to Design and your Duty to Notify;
- Increase your knowledge of the two Standards of Care i.e., Reasonable Skill & Care and Fitness for Purpose;
- Highlight and discuss the relevant Laws: **A.** English Law; and **B.** Middle East Laws / Mandatory Laws (UAE, Qatar, Bahrain, Kuwait, and Oman).

- Improve your ability to assess and manage Design Risk throughout a project's lifecycle.

Please email us directly on [info@cels.global](mailto:info@cels.global) using **DESIGN RISK** in the subject heading to book your **Complimentary Design Risk Webinar**.

We look forward to hearing from you.

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