

2C11

Business economics and entrepreneurship

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Lecture 8: Standard contracts in civil engineering (08/05/2014)

European Erasmus Mundus Master Course

Sustainable Constructions

under Natural Hazards and Catastrophic Events

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LIST OF LECTURES

Lectures

- L1 Trends and challenges for the construction industry
- L2 Business strategies and business development in construction companies
- L3 Financial management in construction companies
- L4 Project management – generalities
- L5 Project management – support activities
- L6 Project management systems applied in constructions
- L7 Entrepreneurship issues
- L8 Standard contracts in civil engineering
- L9 Risk management in construction company
- L10 Summary and discussion of the exam questions

Applications

- A1 General presentation of the case study (WTP – Hunedoara)
- A2 Financial analysis and management in construction company (WTP – Hunedoara)
- A3 Cash flow analysis (WTP – Hunedoara)
- A4 Visit – WTP Hunedoara
- A5 Project's presentation

L8 STANDARD CONTRACTS IN CIVIL ENGINEERING

OBJECTIVES

- **Student is familiar with the main principles of FIDIC contracts**
- **Student has knows the main parties (entities) in FIDIC contracts**
- **Student understands which are the meanings (interpretation) of FIDIC contracts**
- **Student understands the characteristics of FIDIC Red Book contracts**
- **Student understands the characteristics of FIDIC Yellow Book contracts**
- **Student knows the main responsibilities of the contracts parties**

L8 STANDARD CONTRACTS IN CIVIL ENGINEERING

TOPICS

I. FIDIC – OVERVIEW

- Standard forms of contracts
- Successive revisions to the FIDIC
- Main principles
- Parties (entities) in FIDIC contracts
- Balanced Forms of Contract
- Interpretation
- Common aspects
- Recommendations

II. RED AND YELLOW BOOK FIDIC CONTRACTS

- FIDIC Red Book
- FIDIC Yellow Book
- Different clauses under the Red and Yellow Books

III. PARTIES RESPONSABILITIES

- Employer's Duties
- Contractor's Duties
- Engineer's Duties
- Constraints and Restrictions on the Engineer

I. FIDIC – OVERVIEW

TOPICS

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I. FIDIC – OVERVIEW

Standard forms of contracts

Overview

- FIDIC is the abbreviation for “**Fédération Internationale des Ingénieurs-Conseils**” – the international federation of national associations of independent consulting engineers
- This professional association has its headquarters in **Geneva and it was set up in 1913**, by the national associations of private practice consulting engineers of France, Belgium and Switzerland, covering now membership from over 70 countries worldwide
- FIDIC works to promote the **common interests of consulting engineers** through seminars, conferences and regular discussions with the national associations and international financial institutions (such as the World Bank)

I. FIDIC – OVERVIEW

Standard forms of contracts

FIDIC contracts

- The first forms of the FIDIC contracts closely followed the contract conditions prepared by the Institution of Civil Engineers in London.
- The first standard form of contract was issued by FIDIC in **1957** and was known as the **Red Book**. This type of contract suited more the works related to civil engineering work and infrastructure projects, such as construction of highways, bridges, water and sewer networks, because the design was made by the Beneficiary/Employer.
- As a consequence, it soon became clear that another form of contract had to be prepared to cover contracts were major parts of the works was manufactured outside the site of the construction works. Thus, in **1963**, the **Yellow Book** was issued and it was tailored to better fit contracts dealing with a considerable part of mechanical and electrical works designed by the Contractor and where the focus was shifted on the testing and the commissioning of the plants.
- In 1995, the Conditions of Contract for Design-Build and Turnkey were issued and they became known as the **Orange Book**. It is characterized by the fact that the Contractor is fully responsible for the design, building and handing over of the works to the Employer.

I. FIDIC – OVERVIEW

TOPICS

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I. FIDIC – OVERVIEW

Successive revisions to the FIDIC

- The increase in the size and complexity of projects and the increasing demand from Clients and Employers that projects should finish on time, led to **successive revisions** of FIDIC contracts
- In 1999, a suite of new standardized conditions – “FIDIC rainbow”
 - **Conditions of Contract for Construction**, the so-called **Red Book**, for building and engineering works designed by the employer
 - **Conditions of Contract for Plant and Design-Build**, the so-called **Yellow Book**, for works designed by the Contractor
 - **Conditions of Contract for EPC/Turnkey Projects**, the so-called **Silver Book**, for works designed by the Contractor
 - **Short Form of Contract**, the so-called **Green Book**, engineering and building works of relatively small capital value.
- Later on, in 2008, FIDIC issued the **Conditions of Contract for Design, Build and Operate Projects**, the so-called **Gold Book**, which is a development of the Yellow Book, and is intended for contracts where the Employer wants that the Contractor who has designed and built a specific facility to operate it a number of years after the completion of the works.

I. FIDIC – OVERVIEW

Successive revisions to the FIDIC



I. FIDIC – OVERVIEW

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I. FIDIC – OVERVIEW

Main principles

- The **risk is allocated** to the party that is able to better bear and control that risk
- **Recompense and time extension are allowed** when uncalculated hindrances/obstacles occur
- The conditions of contracts represent a **set of good** project management techniques and engineering **practices**
- They **encourage a less adversarial approach** to the relationship between Contractor and Employer and promote amicable dispute settlement
- The conditions of contracts ensure a **balance between legal precision and practicability**, being compatible with both common and civil law concepts
- The **Engineer is responsible for the supervision and the monitoring of the works**, in strict accordance with the Contract provisions, acting on behalf of the Employer and being impartial when fair determination is required, though appointed and paid by the Employer.



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I. FIDIC – OVERVIEW

Parties (entities) in FIDIC contracts

- **The Employer** means the person named as employer in the Appendix to Tender/Contract Data and the legal successors in title to this person
- **The Engineer** means the person appointed by the Employer to act as the Engineer for the purposes of the Contract and named in the Appendix to Tender/Contract Data, or other person appointed from time to time by the Employer and notified to the Contractor under Sub-Clause 3.4 [Replacement of the Engineer]
- **The Contractor** means the person(s) named as contractor in the Letter of Tender accepted by the Employer and the legal successors in title to this person(s)
- **The Contractor's Representative** means the person named by the Contractor in the Contract or appointed from time to time by the Contractor under Sub-Clause 4.3 [Contractor's Representative], who acts on behalf of the Contractor.



I. FIDIC – OVERVIEW

TOPICS

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I. FIDIC – OVERVIEW

Balanced Forms of Contract

Rules

- FIDIC Books are well known and recognized forms of contract, providing:
 - **Rules for the adaptation** of the agreed contract amount
 - **Rules for extension** of time for completion variation procedures
- Thus, all contract forms – depending on their purpose and in a more or less extensive way – are **flexible management tools**, requiring experienced and skillful staff working on behalf of not only the Contractor and the Employer but also the Engineer.
- FIDIC forms of contract recognize that the **successful completion of a project is a process which cannot be totally planned at an early stage**, although they require great skill and care at pre-tender and tender stage.

I. FIDIC – OVERVIEW

Balanced Forms of Contract

Mechanisms

- Although precautions are taken into account, no project can be realized on a green desk and under academic or perfect conditions. **A lot of things may change** or happen having an effect on the time for completion and the contract daily work of involved parties.
- To counterbalance this uncertainty, FIDIC books dispose of a large arsenal of **mechanisms** such as:
 - Instructions and variations
 - Claims
 - Suspension orders
 - Proposals for variations
 - Design changes.

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I. FIDIC – OVERVIEW

Interpretation of FIDIC contracts

1/2

- The contract is the **law of the parties**
- It is drawn up to define **what is required to be carried out** in return for what payment
- The contract defines the **duties and responsibilities** to be undertaken by the parties
- If the contract wording is either incomplete or ambiguous, **its terms must be interpreted**
- FIDIC contracts contain some **guidance for interpretation**. First of all, reference has to be made to the definitions in Clause 1. All defined terms are written with a capital letter. Those terms which are used with capital letters shall be understood in the sense given to them by the definitions in Clause 1.
- However, a large number of FIDIC contract terms are not explicitly defined but are **otherwise well known in common law jurisdictions**.

I. FIDIC – OVERVIEW

Interpretation of FIDIC contracts

2/2

- All **FIDIC Books refer to definitions**. However, the parties will also find definitions in other documents and even outside the contract. For example some of the FIDIC clauses refer to the Base date. Some further definitions depend on the Letter of Tender, some on the Letter of Acceptance or the Contract Agreement and some on other contract documents, such as the Specifications and the Schedules.
- The parties must also be aware of the fact that the General Conditions contain so-called **fall-back clauses** which need to be given effect by the parties. Care has therefore to be taken when completing the Appendix to Tenders parties fail to complete those data which are necessary for the application of fall back clauses, those clauses will not apply.
- One of the most critical contract documents are the **Particular Conditions**, especially if they set aside provisions contained in the General Conditions and if they amend them. It is often the case that parties who are not familiar with the FIDIC risk allocation approach, the main FIDIC concepts, the underlying governing law and the techniques on how to change and amend the FIDIC documents fail to put together a clear contract which is free from ambiguities and discrepancies.

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I. FIDIC – OVERVIEW

Common aspects

1/2

- **Time for completion:** means the time for completing the Works or a Section (as the case may be) under Sub-Clause 8.2, as stated in the Appendix to Tender or the Particular Conditions; however if and when the Contractor is prevented from carrying out the works or if the Employer causes delay to the progress with effect to Time for Completion the Contractor is entitled to claim for extension of time (EOT)
- **Variations:** Under a FIDIC contract Variations are covered by Clause 13; the Clause covers both the authority of the Engineer and the Employer as well as the procedures for work being added, omitted, or changed from the original contract, either by initiative of the Contractor (Value Engineering) or the initiative of the Engineer; also the effects of any Variation order on time and money are expressly stipulated
- **Tests:** All FIDIC Books provide detailed testing procedures; tests are carried out by the Contractor, except for the Tests after Completion:
 - Pre-commissioning tests, including “dry” functional tests
 - Commissioning tests, including operational tests to demonstrate that the Works or relevant section operate safely, as specified and under all operating conditions
 - Trial operation to demonstrate that the Works or section perform reliably and in accordance with the Contract

I. FIDIC – OVERVIEW

Common aspects

2/2

- **Certificates:**

- The Contractor will only be paid after having obtained a Payment Certificate.
- Care of the Works will only pass to the Employer upon the issue by the Engineer of the Taking-Over Certificate (at the completion of the works).
- The post contractual legal liability will only start upon the issue of the Performance Certificate (after the defects notification period).

- **Claims:** the term “Claim” is not a defined term in the FIDIC books, despite it being regularly used by FIDIC; FIDIC forms of contract include a fair risk allocation and, as a result of the risk apportionment, claims have been designated in the Contract; also FIDIC gives clear guidelines for the prosecution of claims arising out of, and in connection with the Contract; for example, the Contractor’s non compliance with claim requirements

- **Disputes:** For solving a dispute, the following sequence has to be followed: disputes shall be adjudicated by a Dispute Adjudication Board (DAB); if either Party is dissatisfied with the DAB’s decision, then either Party may, within 28 days after receiving the decision, give notice to the other Party of its dissatisfaction and then both Parties shall attempt to settle the dispute amicably before the commencement of arbitration, under the Rules of Arbitration of the International Chamber of Commerce.

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TOPICS

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I. FIDIC – OVERVIEW

Recommendations and remarks

- **Preparing the contract documents does not mean to make copies of existing schedules, bills of quantities, specifications and standard forms.** FIDIC standard forms are recommendations and admit that particular adjustments are often appropriate.
- **Understanding the FIDIC Conditions of Contract is the key to preparing and managing FIDIC contracts.** Only a keen and comprehensive understanding of the contracts will help in avoiding disputes and the accompanying cost and time overruns.
- In practice **quality will depend on the quality of the contract documents.** Thus, it is critical to clearly specify the performance criteria and the intended purposes, as most disputes arise from ambiguous and incomplete specifications and/or Employer's Requirements.
- As a matter of fact, **all obligations of the Contractor are more or less dependent on design skills.** Even under the Red Book the Contractor assumes design responsibilities. It cannot be denied that the choice of materials and workmanship involves design responsibilities. Thus the dividing line between the Red Book and the Yellow Book is much finer than is commonly supposed. It is suggested that the Contractor's main obligation under the Red Book, which is the obligation to carry out the Works, undeniably includes design responsibilities. The difference between the Red and the Yellow Book lays in the extent to which design responsibilities are shifted to the Contractor.

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- FIDIC Red Book
- FIDIC Yellow Book
- Different clauses under the Red and Yellow Books

III. PARTIES RESPONSABILITIES

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- Contractor's Duties
- Engineer's Duties
- Constraints and Restrictions on the Engineer



II. RED AND YELLOW BOOK FIDIC CONTRACTS

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II. RED AND YELLOW BOOK FIDIC CONTRACTS

FIDIC Red Book

Conditions

- Conditions of Contract for Construction which are recommended for building or engineering works for which the **Employer or his representative, the Engineer, is responsible for the design**
- The **Contractor constructs the works in accordance with the design provided by the Employer**
- However, the works **may include some elements of Contractor-designed** civil, mechanical, electrical and/or construction works.
- The Accepted Contract Amount is based on the **quantities in the Bill of Quantities** which are *estimated* quantities
- The **Contractor is paid for the actual quantities of work he carried out**, based on the re-measurement of works which are certified by the Engineer, but lump sum could also be used
- **Payments only become due after completion of the Works** and the Contract Price and the method of payment are detailed in Clause 14
- A **Defects Notification Period of usually 12 months** after the Taking Over Certificate is issued

II. RED AND YELLOW BOOK FIDIC CONTRACTS

FIDIC Red Book

Documents

- The documents forming the Contract are to be taken as mutually explanatory of one another and the **priority of the documents** shall be in accordance with the following sequence:
 - (a) The Contract Agreement (if any)
 - (b) The Letter of Acceptance
 - (c) The Letter of Tender
 - (d) The Particular Conditions
 - (e) These General Conditions
 - (f) The Specification
 - (g) The Drawings
 - (h) The Schedules and any other documents forming part of the Contract (the Schedules are here represented by the Bill of Quantities).

II. RED AND YELLOW BOOK FIDIC CONTRACTS

FIDIC Red Book

Others

- The **Particular Conditions** shall cover all project details and particularities, including any modifications of the General Conditions, except those to be specified in the Appendix to Tender.
- The **Specification details** the quality required in the works. Quality may be specified by prescriptive or performance criteria.
- The **Drawings** indicate the location, scope and design complexity of the works and show graphically the full extent of what is required to be constructed. They cannot readily represent quality – they therefore have cross-references to specification clauses which fully describe the expected quality of each element.
- The **Schedules** may comprise a *Bill of Quantities*. The Bill of Quantities means more or less a list of items giving brief identifying descriptions and estimated quantities of the work comprised in a Contract.



II. RED AND YELLOW BOOK FIDIC CONTRACTS

TOPICS

- FIDIC Red Book
- FIDIC Yellow Book
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II. RED AND YELLOW BOOK FIDIC CONTRACTS

FIDIC Yellow Book

Conditions

- Conditions of Contract for Plant and Design-Build which are **recommended for the provision of electrical and/or mechanical plant, and for the design and execution of building or engineering works**
- Under the usual arrangements for this type of contract, **the Contractor designs and provides, in accordance with the Employer's requirements**, plant and/or other works, which may include any combination of civil, mechanical, electrical and/or construction works
- The **risk is shifted from the Employer to the Contractor** who is now responsible for the design
- The works are not **paid** based on the re-measurement of the executed works, but **based on the lump sums included in the Schedule of Payments**, for objects (settling tank, distribution chamber, sludge drying beds, etc.) or parts of the objects (inlet pumping station: civil works, mechanical works, electrical works) completed 100%
- A **Defects Notification Period of 12 months**, which can be extended to 24 months, after the Taking Over Certificate is issued, in order to achieve the performance criteria assumed in respect of the operation of the works (operation and maintenance costs, discharge parameters values, etc.)

II. RED AND YELLOW BOOK FIDIC CONTRACTS

FIDIC Yellow Book

Documents

- The documents forming the Contract are to be **taken as mutually explanatory of one another and the priority of the documents shall be in accordance with the following sequence:**
 - (a) The Contract Agreement (if any)
 - (b) The Letter of Acceptance
 - (c) The Letter of Tender
 - (d) The Particular Conditions
 - (e) These General Conditions
 - (f) The Employer's Requirements
 - (g) The Schedules
 - (h) The Contractor's Proposal and any other documents forming part of the Contract.

II. RED AND YELLOW BOOK FIDIC CONTRACTS

FIDIC Yellow Book

Others

- The ***Employer's Requirements*** outline and define the purpose, scope, and/or design and/or other technical criteria, for the Works (see Sub-Clause 1.1.1.5).
- The ***Schedules*** as referred to in Sub-Clause 1.1.1.6 mean the documents entitled schedules, completed by the Contractor and submitted with the Letter of Tender. They may include data, lists and *schedules of payments and/or prices*.
- The ***Schedule of Guarantees*** and ***Schedule of Payments*** as referred to in Sub-Clause 1.1.1.10 mean the documents so named (if any) which are comprised in the Schedules.
- The ***Contractor's Proposal*** means, according to the definition in Sub-Clause 1.1.1.7 the document entitled proposal, which the Contractor submits with the Letter of Tender and covers the Contractor's preliminary design.

!!! The term ***preliminary design*** is **not defined**. Thus the question arises as to what is meant by preliminary design. Usually, it is a statement of the design fundamentals (supported by drawings) together with a more or less detailed specification of the Works. It is clear that the preliminary design has to be developed from the Employer's Requirements, but the Employer's Requirements need then to be explained with further details.

II. RED AND YELLOW BOOK FIDIC CONTRACTS

FIDIC Yellow Book

Others

!!! There is no clear definition of what is meant by Employer's Requirements. In essence, the Requirements set out what the Employer requires from the Contractor. The FIDIC Contracts Guide explains that the overall design may comprise three stages, the conceptual design (incorporated in the Employer's Requirements), the preliminary design (incorporated in the Proposal) and the final design to be made once the contract has been awarded. Hence, in principle the Employer's Requirements should describe the principle and basic design of the project on a functional basis (i.e. performance specification) and specify the purpose, scope and/or design and/or other technical criteria for the Works.

!!! In accordance with Sub-Clause 1.5, the so-called **Proposal has lower priority than the Requirements**. Thus, in the event that the Contractor's Proposal includes details which deviate from the Requirements, the Contractor must follow the Requirements instead of the Proposal. If the Contractor intends to follow his Proposal, he must firstly request an instruction from the Engineer, who has the power to change the priority of documents. As such an instruction which changes the priority of the contractual documents constitutes a variation, the Engineer must carefully consider the consequences of such an instruction, in particular if he is under the duty to obtain prior approval from the Employer for any instructions which have an impact on the Contract Price.



II. RED AND YELLOW BOOK FIDIC CONTRACTS

TOPICS

- FIDIC Red Book
- FIDIC Yellow Book
- Different clauses under the Red and Yellow Books

II. RED AND YELLOW BOOK FIDIC CONTRACTS

Different clauses under the Red and Yellow Books

- Most of the clauses** under the Red and Yellow Books Conditions of contract are either **similar** or identical, with few **exceptions**:

Red Book	Yellow Book
Clause 5: Nominated subcontractors (Definition of “nominated Subcontractor”, Objection to Nomination, Payments to nominated Subcontractors, Evidence of Payments)	Clause 5: Design (General design obligations, Contractor's Documents, Contractor's Undertaking, Technical Standards and Regulations, Training, As-Built Documents, Operation and Maintenance Manuals, Design Error)
Clause 12: Measurement and Evaluation (Procedure for Tests after Completion, Delayed Tests, Retesting, Failure to Pass Tests after Completion)	Clause 12: Tests after Completion (Works to be Measured, Method of Measurement, Evaluation, Omissions)

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- Balanced Forms of Contract
- Interpretation
- Common aspects
- Recommendations

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- FIDIC Red Book
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III. PARTIES RESPONSABILITIES

Employer's Duties

1/2

- To **disclose the project requirements** combined with site data and other useful information in order to enable the Contractor to submit an offer, during the procurement phase
- To **grant access to and possession** of the Site
- To **disclose Site data and co-operate with the Contractor** to the extent provided by the Contract
- To **provide the Contractor with the design under the Red Book** contracts
- To make **arrangements for payments** – FIDIC has included certain provisions which help to reduce exposure to non-payment and provide the Contractor with options to pursue should payment not be forthcoming:
 - One option is that, subject to Sub-Clause 2.4, the Employer shall submit, within 28 days after having received any request from the Contractor, reasonable evidence that financial arrangements have been put in place and are being maintained which will enable the Employer to pay the Contract Price
 - Another possibility is to provide for greater frequency of interim payments which will not only help cash-flow, but will help to avoid, or at least limit, exposure to non-payment.

III. PARTIES RESPONSABILITIES

Employer's Duties

2/2

- To **pay the Contract Price**, as the Employer shall not withhold any payments or set off against an amount certified in a Payment Certificate; if any corrections are needed, they will be regulated under the following Interim Payment Certificate
- To **assist the Contractor to obtain copies of the Laws of the Country** and with any applications for permits, licenses or approvals required by these Laws
- To **compensate the Contractor for additional cost** and disruption if a risk eventuates which is borne by the Employer:
 - Compensation for failure to grant access to or possession of the site, if the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession within such time
 - Compensation of unforeseeable physical events, if the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable; to avoid compensation to the maximum extent possible, according to Sub-Clause 4.10, the Contractor is deemed to have inspected and examined the Site and the surroundings and he is also deemed to have been satisfied before submitting the Tender
 - Compensation for interference by the Employer.

III. PARTIES RESPONSABILITIES

TOPICS

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III. PARTIES RESPONSABILITIES

Contractor's Duties

1/2

- To carry out **inspections and examinations of the Site before** submitting his tender
- To have **scrutinized the Employer's Requirements before submitting his tender**; if the Contractor encounters difficulties as a result of any errors, fault or defect in the Employer's Requirements which could have been disclosed by an experienced Contractor before submitting the Tender, the Time for Completion and the Contract Price shall not be adjusted
- To obtain (at his cost) a **Performance Security** for proper performance
- To submit an **Advance Payment Guarantee**, if an advance payment has been agreed (unless the Employer receives this guarantee, Sub-Clause 14.2 shall not apply) and to maintain it until full and complete reimbursement of the advance payment
- To provide **all the insurances required by the Contract** (for works and Contractor's equipment, against Injury to Persons and Damage to Property, for Contractor's Personnel)
- To **complete the Works in compliance with the Contract** and to remedy any defects therein (The meaning of the term "defect" is not defined by FIDIC conditions, neither for the purposes of the defects correction obligation under the contract, nor for the purposes of the post contractual legal liability, the latter being completely submitted to the discretion of the governing law; hence, its meaning is subject to determination by the applicable law.)

III. PARTIES RESPONSABILITIES

Contractor's Duties

2/2

- To carry out the **manufacture of Plant**, the production and **manufacture of Materials**, and all other **execution of the Works** in a manner specified in the Contract, in a proper workmanlike and careful manner, in accordance with recognized practice and with properly applied facilities, etc., with properly equipped facilities and non-hazardous Materials, except as otherwise specified in the Contract
- To **design the Works**, if the contract provides for the design by the Contractor, (**Yellow Book** and Silver Book)
- To **submit a detailed time program**, including a general description of the methods which the Contractor intends to adopt, the major stages in the execution of the Works and details of resources
- To continuously **proceed in accordance with the program** and to update the program
- To **accomplish the design**, if any, and the completion of the Works, including the remedying of defects, within Time for Completion
- To **operate the Works**, if the contract provides for the operation of the Works by the Contractor (**Gold Book**).

III. PARTIES RESPONSABILITIES

TOPICS

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III. PARTIES RESPONSABILITIES

Engineer's Duties

!!! The Engineer does not feature in the Silver, Green and Gold Books, where he is replaced by the Employer's Representative.

Under the Red and Yellow Books, the Engineer's role is two-fold:

The Employer's agent, with the following duties and responsibilities:

- To act on behalf of the Employer
- To protect the Employer's interests and ensure that the Employer does not pay more than he should
- To organize the kick-off, because he must notify the Commencement date (Sub-Clause 8.1).
- To reject any submitted program (Sub-clause 8.3).
- To evaluate, determine and instruct Variations (Sub-Clause 13.3), although not being allowed to amend the contract; unfortunately, it is often the case for Employers and their consultants to attempt to limit the powers of the Engineer under an express condition of prior approval by the Employer, and, in this situation, the Employer shall include such restrictions in the Particular Conditions
- To review and/or approve the Contractor's design against the Employer's Requirements, as the case may be (Sub-clause 5.2 Yellow Book).
- To inspect the Works (Sub-Clause 7.3).
- To certify the works executed by the contractor and the payments (Clause 14)

III. PARTIES RESPONSABILITIES

Engineer's Duties

Under the Red and Yellow Books, the Engineer's role is two-fold:

The Employer's agent, with the following duties and responsibilities:

- To monitor actual progress on site versus planned progress, according to the Contractor's program
- To analyze the Contractor's applications for payment, together with the supporting documents, and to issue the Interim and Final Payment Certificates
- To participate at the tests and to reject/approve any Plant, Materials or workmanship (Sub-Clause 7.5).
- To measure the Works (Sub-Clause 12.1 Red Book).
- To determine new rates (Sub-Clause 12.3 Red Book).
- To issue Taking-Over Certificates, Performance Certificates (Sub-clauses 10.1, 11.9).
- To give instructions (Sub-Clause 3.1, 1.5, 13.1).
- To request proposals (Sub-Clause 13.3).

Entity providing impartial professional opinions, with the following duties and responsibilities:

- To make a fair determination in accordance with the contract, taking due regard of all relevant circumstances (in accordance with Sub-Clause 3.5): the Engineer shall make determinations as to claims, new rates (Red Book only) and as to the evaluation of variations
- To act equitably towards the Contractor

III. PARTIES RESPONSABILITIES

TOPICS

- Employer's Duties
- Contractor's Duties
- Engineer's Duties
- Constraints and Restrictions on the Engineer

III. PARTIES RESPONSABILITIES

Constraints and Restrictions on the Engineer

- The Engineer is **not allowed to amend the contract** (see Sub-clause 3.1).
- He is also **not allowed to relieve either Party to the contract** of any duties, obligations or responsibilities under the Contract
- He has to obtain the **specific approval of the Employer** before taking action under the following Sub-Clauses of these Conditions:
 - (a) Sub-Clause 10.1: Specific approval of the Employer is required before issuing any Taking-Over Certificate
 - (b) Sub-Clause 11.9: Specific approval of the Employer is required before issuing the Performance Certificate.
 - (c) Sub-Clause 13.1: Specific approval of the Employer is required before instructing or approving any Variation that would cause the Contract Price to exceed the Accepted Contract Amount or any contract amount subsequently agreed upon by the Employer and the Contractor in addenda to the Contract
- The **Engineer never changes the contract or deviates from that** which has been agreed by the parties.



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