Operation of FIDIC Civil Engineering Conditions in Egypt and Other Arab Middle Eastern Countries

The Fédération Internationale des Ingénieurs Conciels (International Federation of Consulting Engineers, or FIDIC) form of contract for civil engineering work is the most used international standard form for civil engineering projects in Arab Middle Eastern countries. The first edition of the FIDIC conditions was published in 1957. Revised forms were introduced in 1969 and 1977 and the latest, the fourth edition, in 1987. According to some commentators, the third edition of the FIDIC forms was adopted in more than 30 percent of the civil engineering contracts carried out in the Middle East in the 1980s.1 Undoubtedly, this percentage has increased under the current edition.

For the purpose of public-works contracts the FIDIC form is the predominant standard in the majority of the Arab Middle Eastern countries. In Kuwait, the second edition, issued in 1969, is embodied in the Ministry of Public Works conditions.2 In Saudi Arabia, the public-works contract issued by the Council of Ministers Resolution Number 136 of February 1, 1988, is based on the FIDIC conditions.3 In Iraq, the FIDIC conditions were used as a model for public-works

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contracts conditions. In Oman, most of the public-works contracts are based on the Standard Documents for Building and Civil Engineering Works that, in turn, are based on the FIDIC conditions. In Jordan, the general conditions for public-works contracts issued in 1991, known as the General Conditions Book, were based on the FIDIC conditions in the fourth edition. In other Arab countries, regardless of whether a specified standard form for public-works is used, the FIDIC conditions are often specified.

In Egypt, despite the lack of a standard form, the FIDIC conditions are employed in a great number of the most important construction and industrial projects carried out in the course of public-works contracts. For example, the FIDIC conditions were used in the Greater Cairo Waste Water Project, the Cairo Metro Project, Demietta Port, and terminal two of the new airport. In addition, the FIDIC conditions are adopted in all projects that are financed by the World Bank and by USAID (United States Aid for International Development), both of which finance a considerable number of major infrastructure projects in Egypt.

FIDIC conditions are inspired by the Institute for Civil Engineers (ICE) form, which, in turn, was based on English law concepts and construction industry practice in the United Kingdom. Thus, FIDIC conditions are based on U.K. domestic contract law. The changes made to transform the domestic form (ICE) to an international form (FIDIC) were, except for a few, insubstantial. Professor Wallace has clearly pointed out this problem in his comment on FIDIC conditions, stating that: “There has . . . been far too little internationalization of the contract conditions.”

5. Turner, supra note 3, at 146.
7. However, in March 1993, the Institute of Civil Engineers (ICE) in London issued a new edition of conditions (NEC) to compete with the FIDIC conditions. The NEC form has been approved by the World Bank and recommended for contracts under $10,000,000. Further, some other financial institutions employ their own standards. For instance, all public-works contracts in Egypt financed by the European Development Fund (EDF) are subject to the General Conditions for Public Works Contracts Financed by the EDF.
9. For example, clause 8.2 of the FIDIC conditions represents a radical departure from ICE conditions and common-law principles by providing that “[w]here the contract expressly provides that part of the permanent works shall be designed by the contractor, he shall be fully responsible for that part of such works, notwithstanding any approval by the engineer.” Accordingly, despite the approval of the engineer for the design, the risk remains with the contractor who supplied the design. Contrary to this clause, the solution under English law is different in that the approval by the engineer will pass the risks of defective design to the employer. See M. Lane, FIDIC 4th Edition and the English Legal System, 9 INT’L CONSTRUCTION L. REV. 300 (1992).
in this sense, which remains far too domestically English in character and lan-
guage.  

In addition, the general practice in some Arab countries (for example, Kuwait, Saudi Arabia, and the United Arab Emirates-Abu Dhabi) is to use the Arabic language for the language of the contract and its documents, including the FIDIC conditions. According to such practice, the contract is constructed and interpreted in accordance with Arabic, not English, which is the origin language of the document. On this point Professor Wallace notes that "the contract is so unremittingly and peculiarly English in its language and concepts at a number of points, that the task of any translator becomes impossible without a profound knowledge of English law and industrial practices." Therefore, it is not surprising to find a considerable number of disputes due to the contradiction between the English version and an inaccurate Arabic translation.

To sum up, on many occasions the intended aims of the FIDIC clauses supported by the English legal system and U.K. construction industry practice may lead to a different result for the same FIDIC clauses governed by Egyptian law or any other Arab country's laws.

The purpose of this article is to focus on some of the differences between the concepts adopted under the FIDIC form of contract within the common-law principles and those applied in Egypt and other Arab countries. These differences underline problems and difficulties that arise throughout the performance of the contract. Consequently, they should be considered in advance by a foreign contractor who agrees to apply FIDIC conditions to civil engineering in Egypt and other Arab countries.

I. General Legal Framework of the FIDIC Form of Contract under Egyptian Law

A. Compatibility of the FIDIC Conditions with the Egyptian Legal Framework

Generally speaking, most of the solutions and concepts adopted under the FIDIC conditions are compatible with Egyptian law and the laws of other Arab

Middle Eastern countries. However, some of the FIDIC clauses embodying common-law concepts are not easy to reconcile with Egyptian law and civil-law principles in general. These difficulties are due to two major reasons:

1. Some of the English legal concepts that are incorporated in the FIDIC conditions differ substantially from those that exist in Egypt and other Arab Middle Eastern countries that apply the civil law system (for example, Bahrain, Iraq, Jordan, Libya, Kuwait, Oman, Qatar, Syria, and the United Arab Emirates).

2. The general framework of the construction industry in Egypt and other Arab countries differs from the English construction industry. Further, the FIDIC form of contract is sometimes used for purposes that are not dealt with in the conditions. Such deviation may cause considerable problems during the operation of the contract.

In general, Egyptian law, as other civil laws, inherited from French law the distinctions between two types of works contracts: (1) private works contracts that involve private parties or the state as a nonsovereign power; (2) public works contracts that involve the state as a sovereign power. Each type of contract is subject to a different set of rules, even when the FIDIC form is used. Accordingly, under Egyptian law the FIDIC conditions can be subject to either private contract rules or public contract rules.

B. FIDIC CONDITIONS WITHIN THE ABMIT OF PRIVATE CONTRACT RULES

When a FIDIC contract is deemed to be a private-law contract, it is subject to two sets of rules under the Egyptian Civil Code (ECC): (a) the general provisions of the ECC that govern all types of contracts (articles 89-161); and (b) particular ECC provisions regarding "construction and building contracts" (articles 646-676). The differences between English law and Egyptian law—as is discussed below—are not limited to rules applied specifically to the contracts for works; they also extend to such differences as general rules of interpretation and principles of contract drafting. The following examples may illustrate these differences. Unlike under common law, when the judge or the arbitrator has to interpret a private contract under Egyptian law, reference is always made to Civil Code principles, rather than looking too closely to a precedent. Further, the Egyptian judge is entitled to look at the negotiation phase when construing a works contract, whereas the power of the English judge is more limited. Finally, when a discrepancy is in dispute, the contract must be interpreted in favor of

14. El Shalakany, supra note 6, at 281.
15. Id.
the debtor under article 151.1 of the ECC, regardless of whether the debtor was the maker or the grantor. Therefore, a liquidated damages clause under article 47.1 of the FIDIC conditions is subject to a narrow interpretation in favor of the contractor.

C. FIDIC CONDITIONS WITHIN THE AMBIT OF PUBLIC-WORKS CONTRACTS

A public-works contract is defined as "a contract signed with a public legal entity by which the contractor undertakes construction, repair or maintenance of a public service project related to an immovable."18 In the light of this definition, three essential elements are required for the existence of a public-works contract. First, the work should be carried out for the benefit of a public entity, and it is not necessarily owned by such entity. The term public entity may include the government, local administration units, and public authorities.19 Second, the work should be undertaken for the public interest. Finally, the object of the work should be immovable by nature or at least immovable by designation, such as installation of telephone cables.

In general, public-works contracts are governed by the general principle of contract for works under the Civil Code when specific rules for such contracts are not needed.20 For example, the rules of decennial liability are applied to public-works contracts.21 However, the distinction between private-law contracts and public-works contracts has great importance under Egyptian law and the laws of other Arab Middle Eastern countries relating to the application of FIDIC conditions.

The administrative court had granted the public employer the power to vary, amend, rescind, or increase the public-works contract even if the appropriate clause is not incorporated in the contract, whether FIDIC conditions are used or not. Such power is a matter of public policy and cannot be waived by the will of the administration.22 Also, the administrative courts have developed different theories and solutions in favor of public contractors, for example, *le fait de prince* and *théorie des sujétions imprévues*, which are not available in private contracts.

In addition, the administrative court has jurisdiction over any disputes arising from public-works contracts.23 In this connection, arbitration of public-works contracts has been strongly challenged in some recent cases, even when FIDIC conditions were used. The Administrative Supreme Court decided the exclusivity

principle of the administrative courts' jurisdiction relating to public contracts. This trend was inherited from French law, which prevents arbitration in local public-works contracts. However, the general assembly of the advisory opinion department and legislative department of the state council has decided that arbitration agreements are permitted in public contracts whether such contract is concluded with a foreign contractor or not.

In I.C.C case No. 6162 of 1990, where FIDIC conditions were used, the public employer contested the arbitrator's jurisdiction on the basis of the nonarbitrability of administrative contracts under Egyptian law. The sole arbitrator dismissed the employer's contention deciding the arbitrability of the dispute. However, in order to reach this conclusion, the arbitrator did not examine the arbitrability question of administrative contracts under Egyptian law, but instead he applied the Swiss law on this question as the applicable law to arbitration procedures. According to article 177 of the Swiss Federal Code on Private International Law, the concerned state that is involved in an international arbitration is prevented from relying on its own law in order to contest its capacity to be a party to an arbitration of a dispute covered by an arbitration agreement. Hence, the employer's contention was disregarded.

To avoid these difficulties, the new Egyptian Arbitration Law, which came into force in April 1994, makes it clear in article 1 that public-works contracts are subject to arbitration. Accordingly, the arbitrability of disputes under the FIDIC conditions within the ambit of public contracts became undisputable.

In some of other Arab countries arbitration in public-works contracts is restricted. For instance, in Saudi Arabia no public entity is permitted to agree on arbitration unless it is authorized to do so by the prime minister. However, considerable improvement has been made in this respect since Saudi Arabia joined the New York Convention of 1958 regarding the recognition and enforcement of foreign arbitral awards in January 1994.

D. Application of Egyptian Law is Mandatory for all FIDIC Contracts Performed in Egypt

It is suggested that the FIDIC conditions would be subject to Egyptian law as a matter of public policy when the project is performed in Egypt, whether the contract is deemed to be a public contract or a private contract. According to this perspective, particularly in the absence of any judicial decisions, the enforce-
ability of the parties' choice of a foreign law under clause 5.1(b) of the FIDIC conditions is questionable.  

Indeed, the above view can be supported under the Egyptian law for the following reasons. First, with regard to public-works contracts the rules applicable to public contracts, whether the FIDIC conditions are used or not, are imperative. In this respect, article 14 of the executive regulations of Law No. 9 related to public tenders provide that: "Without prejudice to the law organizing public tenders no exemptions shall be tolerated for individual cases from the provisions of the present regulations unless if so necessitated and upon a decree by the Minister of Finance."

Accordingly, the contracting parties must observe the provisions of the executive regulations that govern all public-works contracts. These regulations must be incorporated into all public-works contracts including those based on FIDIC conditions. These rules are applicable not only to tendering procedures but also to the substance of the contract. In my opinion, the authority of the Minister of Finance to exempt the parties from the regulations is limited to one or more of the provisions, but such exemption cannot be extended to the entire regulations. In any case, no exemption from the law itself can be given unless such exemption was provided by a particular law or by an international agreement.

Second, the rule of lex situs is also mandatory with regard to the contract for works within the ambit of private contracts. The ECC extends the lex situs rule to all contracts connected with an immovable. Accordingly, the Egyptian law is not only applicable to rights of property, possession, and real estate, but also to all personal obligations arising from any contract connected with an immovable such as the contract of works when the project is located in Egypt.

II. Use of FIDIC Conditions for Purposes Differing from Those Presumed by Drafters

FIDIC conditions are sometimes employed in Arab Middle Eastern countries for purposes not considered in the terms of the conditions. Two examples can be given in this context.

29. Art. 40 of Law No. 9 (related to public tenders).
30. Arts. 73-87 of Executive Regulations of Law No. 9.
32. Art. 19 of ECC provides that "contracts relating to immovables . . . are governed by the law of the place in which the immovable is situated." See E. ABDALAH, INTERNATIONAL PRIVATE LAW 386 (1986) (in Arabic).
33. P. RUSHBROOKE, WORKING WITH FIDIC—A PRACTICAL APPROACH TO ITS USE IN THE MIDDLE EAST 7 (1979).
A. Use of the FIDIC Conditions as a Turnkey Contract on a Lump-Sum Basis

The FIDIC conditions constitute a remeasurement contract with bill of quantities. This bill of quantities is used for the remeasurement of actual work and recalculation of the final contract price. Generally speaking, in a remeasurement contract, the price of the contract is subject to recalculation to take account of the actual work performed irrespective of any earlier estimates given at the time of contracting. On the contrary, under a lump-sum, fixed-price contract (apart from any increase that occurred under variation clauses and fluctuation clauses) the contractor is obliged to carry out all works included in the contract documents for a fixed, specified, tendered price.

According to the FIDIC conditions, the employer bears the risks of variation in some of the rates and prices tendered as well as risks of variations in quantities finally measured over those estimated in the tender. The contractor is entitled to the full price of actual quantities of works, services, or supplies executed under the terms of the contract.

In Egypt and other Arab countries the employer does not accept the risks of the variation in the quantities, and the FIDIC conditions are frequently altered to be a lump-sum, fixed-price contract with only a few specific provisions for price changes. Also, as a lump-sum contract, the FIDIC model is often amended for use in turnkey projects despite the fact that its language originally presumes the responsibility of the engineer, not the contractor, for the design. For example, in the Damiatta Port Development Project, the contractor (a consortium) was responsible for the design, preliminary work, dredging and reclamation works, civil work, equipment supplying and training, although the FIDIC (3rd edition) conditions were used.

If the FIDIC model is used as a turnkey contract on a lump-sum basis, the contractor would bear all risks (apart from the application of any variation clauses and escalation clauses) with respect to changes in quantities. For example, the general conditions of the standard contract of the Kuwaiti Public Housing Authority (FIDIC conditions, 2d edition) state that in the case of differences between the quantities provided in the bills and actual quantities as performed, the contractor is prevented from any additional sums or compensation whatsoever (clause 55 of the conditions). Thus, in these cases, bills of quantities and remeasurement principals provided in clauses 55 and 56 of the FIDIC conditions become irrelevant. The

34. According to the FIDIC conditions, bills of quantities are deemed to be a part of the contract documents (clause 1.1(iv)).
35. For further details for functions and standard methods of measurement, see I.N. Duncan Wallace, The Use of Bills of Quantities in Civil Engineering and Building Contracts, 6 J. MAR. L. & COM. 409 (1975).
only possible role of bills of quantities as such is limited to measurement of additional works required according to clause 51 of the general conditions.\textsuperscript{38}

B. USE OF THE FIDIC CONDITIONS FOR BUILDING CONTRACTS

Although the FIDIC conditions are designed to govern civil engineering contracts, they are often used in Arab countries for building contracts. In fact, the two types of works differ substantially. In his comment on the operation of the FIDIC conditions in the Middle East, Rushbrook explains those differences in the following words:

The two operations are markedly different. Civil engineering usually consists of projects incorporating large foundations or earth-moving operations together with reinforced concrete works on a massive scale, e.g. dams, harbours, roadways etc. They contain largely little specialist works and some of the temporary works are often designed by the consulting engineer. Building works on the other hand, consist hopefully of work fully detailed before the work starts and with a great variety of finishes, services and sub-contractors' work.\textsuperscript{39}

The preceding sections have set out the general features of the legal framework of the FIDIC rules and their use in Egypt and other Middle Eastern Arab countries. The discussion now turns to the operation of particular clauses of the FIDIC conditions under Egyptian law and the laws of other Middle Eastern Arabic countries.

III. Discussion of Particular Aspects

A. THE PREDOMINANT ROLE OF THE ENGINEER UNDER FIDIC CONDITIONS CLAUSE 2

1. Dual Role of the Engineer Under the FIDIC Conditions

The dual role of the engineer is an important feature of the FIDIC conditions inherited from English practice and the ICE contract. This dual role can be enumerated as follows:

a. The Engineer as an Administrator, Certifier, or even Adjudicator (Quasi-Arbitrator)

In his capacity as administrator of the contract, the engineer is entrusted, inter alia, to measure and value the works to be executed and estimate the cost of such works. In addition to his role as an administrator, the engineer is empowered under clause 67 of the conditions to make decisions in disputes arising between the contractor and the employer. According to English law, the engineer or


\textsuperscript{39} RUSHBROOKE, supra note 33, at 8.
architect in performing his duties as certifier or as a quasi-arbitrator is obliged under implied terms of the common law to act in a fair and professional manner.

b. The Engineer as the Employer's Agent

In his capacity as an agent, the engineer must represent the interests of the employer, and if he fails to do so he may be liable to the employer for damages. In *Sutcliffe v. Thakran* the House of Lords affirmed that the engineer is the employer's agent and his liability to the employer and contractor should be regarded on this basis. In *Pacific Associates v. Baxter* Russell, L.J., stressed that the engineer is not able to claim immunity from suit as a result of any arbitral or quasi-arbitral role under the terms of the contract, even when FIDIC conditions are used.

The engineer as the agent of the employer undertakes two functions. First, the engineer is responsible for preliminary planning works that include feasibility studies, design, and the general preparatory organization for the project (for example, preparing the contract documents and assisting the employer in the evaluation of tenders). Second, the engineer supervises the construction and represents the employer, vis-à-vis the contractor, during the performance of the contract. The role of the engineer as an agent under the FIDIC conditions is detailed in no less than 57 of the 72 clauses of part I.

With respect to the dual role of the engineer under the FIDIC conditions, it might be desirable for our discussion to add the following comments. First, the engineer is obliged to obtain the approval of the employer that is required under the terms of the engineer's appointment. However, this restriction is not effective vis-à-vis the contractor unless he is informed of such requirement. Second, the employer must act through the engineer and is not entitled to bypass the engineer. Third, the replacement of the engineer by the employer without a bona fide reason constitutes a violation of the contract and operates as a frustration of the FIDIC clauses, which are based on the existence of an independent and impartial engineer. Finally, in the absence of a designated engineer, the contractor is not bound to comply with the procedures provided by clause 52.5 of the conditions.

Further, in ICC case No. 6230 of 1990, the arbitral tribunal held that the failure of the employer to nominate an engineer would enable the contractor to initiate

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42. [1974] 1 All E.R. 859.
an arbitration directly without requesting the engineer’s decision, along with the accompanying deadlines provided by clause 67. That is, the absence of a designated independent engineer would allow the contractor to disregard procedures for resorting to the engineer prior to initiating arbitral proceedings.47

The FIDIC concept of the engineer’s dual role as illuminated above is susceptible to criticism. It is advocated that such dual role should be abolished.48 Further, the difficulties concerned with the dual role of the engineer as a judge and as a party at the same time are the major reasons to amend the FIDIC conditions in Egypt and other Arab countries.49 The efficiency of such a mechanism under the FIDIC conditions without any modifications presumes that the English model is applied by English engineers to an English project.50 Therefore, it is not surprising that the World Bank has omitted the dual role of the engineer. In the modified form, the engineer’s role is limited to represent the employer interests without any quasi-arbitration role.

2. The Evaluation of the Engineer’s Dual Role under Egyptian Law and Other Arab Middle Eastern Law

With respect to the role of the engineer as a quasi arbitrator, such role is frequently omitted completely in Egyptian practice. Thus, in a considerable number of civil engineering contracts carried out in Egypt, no reference has been made to the engineer in the case of any disputes or differences arising out of or in connection with the contract.51

In other Arab countries that adopted the FIDIC conditions in the course of public-works contracts, such as Kuwait, the engineer is often an employee of the concerned authority. In such contracts, the role of the engineer is tenuous.52 In Kuwaiti Public Organization for Housing contracts all orders of variations are reserved to the employer, not to the engineer. Also, determination of increased costs arising from special risks is vested in the sole discretion of the employer.53

47. 17 Y.B. COM. ARB. 168 (1992).
51. For example, in the Damiatta Port Development Project Contract (using FIDIC 3d ed.) concluded between the General Organization of Development of New Urban Communities (employer) and a French-Japanese consortium (contractor), no reference is made to the role of the engineer as a quasi-arbitrator.
52. See generally B. Totterdill, FIDIC in the Gulf: A Comparison of the Particular Conditions and Changes to the FIDIC Conditions of Contract as Used in Kuwait and the United Arab Emirates, 8 INT’L CONSTRUCTION L. REV. 466-85 (1991); Turner, supra note 3.

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With regard to the role of the engineer as an agent the engineer may not be characterized under Egyptian law as an agent. Instead the relationship between the engineer and the employer is generally based on a contract for work governed by ECC articles 646 to 667. It is essential in the view of Egyptian law to distinguish between two categories of the engineer’s functions under the FIDIC conditions: nonjuridical acts (such as drawings, specifications, and examination of the site) and juridical acts (such as issuance of the custody certificate). With regard to all nonjuridical acts under the FIDIC conditions, there is no agency at all in the view of Egyptian law. The mandate under Egyptian law is limited to juridical acts. In the words of Professor El Kholy:

The legal relationship with the employer as to these nonjuridical acts is a relationship based on a contract for work governed by Arts. 646 to 667 of the Egyptian Civil Code. For this category of nonjuridical acts, the engineer is an independent contractor who has to perform his obligations in consideration of the agreed remuneration, but with no agency relationship whatsoever.

Further, with respect to juridical acts the engineer cannot be viewed as an agent. This view is supported by the following reasons. First, when the employer’s specific approval is required for major decisions as set out in part II of the conditions, the engineer is regarded as a messenger and not as the employer’s agent. The legal support for this proposition resides in the fact that the agent under Egyptian law must express his own will and not that of his principal. Second, the restriction on the employer not to bypass his engineer under the FIDIC conditions contradicts the right of the principal under Egyptian law to act directly for himself. Third, the duty of impartiality and fairness provided by clause 2.6 is inconsistent with the Egyptian law that imposes a general duty on the agent to act in the best interest of his principal and “his discretion must go only in this direction.” Notwithstanding, the duty of impartiality provided by the contract must be interpreted as an obligation on the employer and not directly upon the engineer who is not a party to the contract. Finally, and most importantly, under Egyptian law the engineer under the FIDIC mechanism cannot be regarded as an agent since his decisions are not binding on the employer, who is entitled in the case of dispute to refer to arbitration the engineer’s decisions.

54. El Kholy, supra note 45, at 3.
55. Decision of May 16, 1967, Case No. 150 (18 Judicial Year) at 1005 [Egyptian Supreme Court], in 7 A. EL SANHURI, EL WASEET 30 (1989).
56. El Kholy, supra note 45, at 4.
57. According to ECC art. 699, the mandate or agency is defined as “[a] Contract whereby a mandatory binds himself to perform a juridical act on behalf of a mandator.” (Emphasis added.)
58. El Kholy, supra note 45, at 4.
59. Id. at 6.
60. Id.
61. Id.
62. Id.
with which he is not satisfied. The principal under Egyptian law is bound by the acts of his agent that are carried out within his power.\textsuperscript{53}

Therefore, unlike in English law, the engineer is not an agent with regard to all functions that are carried out under the FIDIC conditions. Consequently, the engineer's obligations and his liability to the employer, even within the ambit of the FIDIC conditions, are governed by rules of contract for works, not the law of agency.

To summarize, in the view of Egyptian law, the engineer's duty within the framework of the FIDIC model is basically one of advice and control without being an agent of the employer.\textsuperscript{64} Therefore, the engineer's relationship is governed by the rules of contract for works, not by the law of agency. Notwithstanding, the engineer can represent and consequently bind the employer, at least with regard to juridical acts, provided he is authorized to do so under the terms of his contract with the employer.\textsuperscript{65}

B. GENERAL RESPONSIBILITIES OF THE CONTRACTOR
(FIDIC CONDITIONS CLAUSE 8.1)

As Dr. Bunni pointed out, a careful examination of the FIDIC conditions reveals that the provisions usually impose an obligation upon the contractor.\textsuperscript{66} According to clause 8.1, the duties of the contractor are generally divided into two groups.\textsuperscript{67}

First, the contractor's duties are to design (if required), execute, and complete the works in the agreed time or any extended time. These duties are extended from the date of commencement of works to the date of the custody certificate that is issued by the engineer under clause 48.1 (taking-over certificate).

The contractor is obliged to provide labor, materials, and plant equipment. In addition, the contractor has to warn the employer, through the engineer, of any error or other defects that are discovered in the design or specification of

\textsuperscript{63} ECC art. 105 provides that "[w]hen a contract is concluded by a representative within the limits of his authority in the name of his principal, the rights and obligations resulting therefrom will be in favour of and binding upon the principal." (Emphasis added.)


\textsuperscript{65} M. SOROUR, LIABILITIES OF ENGINEERS AND BUILDING CONTRACTORS 22 (1985) (in Arabic).

\textsuperscript{66} BUNNI, \textit{supra} note 8, at 171.

\textsuperscript{67} FIDIC conditions clause 8.1 provides:

\begin{quote}
The contractor shall with due care and diligence, design (to the extent provided for by the contract), execute, and complete the works and remedy any defects therein in accordance with the provisions of the contract. The contractor shall provide all superintendent, labour, materials, plant, contractor's equipment and all other things, whether of a temporary or permanent nature, required in and as the necessity for providing the same is specified in or is reasonably to be inferred from the contract. The contractor shall give prompt notice to the Engineer, with a copy to the Employer, of any error, omission, fault or other defect in the design or specification for the works which he discovers when reviewing the contract or executing the works.
\end{quote}
works during the review of contractual documents or during the execution of the works. This obligation was added to the conditions in 1992.

The contractor must carry out his duties with due care and diligence, and must complete works to fit their purposes. As in English law, the obligation of the contractor under the FIDIC conditions is an absolute one. English law imposes three implied obligations on the contractor: (1) the contractor is obliged to complete works with care and skill; (2) the contractor warrants that the material he uses and works he erects are reasonably fit for the purpose for which they are required; and (3) the contractor warrants that the materials he supplies are of good quality. These principles are similar if not identical to those applied in Egyptian law.

Second, there is a duty to remedy any defects occurring after the substantial completion of works to the stage where a defects-liability certificate can be issued by the engineer and subject to the engineer’s satisfaction under subclause 62.1. In this regard, it should be emphasized that the contract is not considered complete until the defects-liability certificate has been issued by the engineer.

In Egypt and other Arab countries, the contractor is subject to additional liability called decennial liability. It is applied to FIDIC contracts whether used as private contracts or as a public-works contracts. The application of the decennial-liability provisions is a matter of public policy; such liability cannot be excluded by the parties and need not be specified in the contract. The basis of the decennial liability can be summarized as follows:

(1) Decennial liability is imposed on the contractor, architect, and civil engineer for the benefit of the employer and his private successors (for example, the

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68. The Liability of Contractors 142 (H. Lloyd ed., 1986) [hereinafter Lloyd].
71. May, supra note 41, at 53.
72. In public-works contracts in Egypt the defect-liability period is one year, which starts from the date of the issuance of the taking-over certificate (temporary delivery). See Executive Regulations of Tendering Law art. 86.
73. FIDIC conditions clause 62.
74. Decennial liability is provided by ECC art. 651, which states that:
   The architect and contractor are jointly and severally responsible for a period of ten years for the total or partial demolition of construction or other permanent works created by them, even if such destruction is due to the defective construction, unless in this case the construction were intended by the parties to last for less than ten years. The warranty imposed by the preceding paragraph extends to defects in constructions and creation which endanger the solidarity and security of the works. The period of ten years runs from the date of delivery of the works. This article does not apply to the rights of action which a contractor may have against his subcontractor.
The same provision is incorporated into other Arab civil codes. See, e.g., art. 870 of the Iraqi Civil Code; art. 788 of the Jordanian Civil Code; art. 668 of Obligations and Contracts, Lebanese Code; art. 650 of the Libyan Civil Code; arts. 692 and 695 of the Kuwaiti Civil Code; and art. 880 of the UAE Civil Code.
75. ECC art. 653.
purchaser of the factory or the building). This liability is extended to all works relating to the construction of new fixed establishments and buildings. Thus, decennial liability does not include damages resulting from maintenance works and extension of existing establishments.\(^\text{56}\)

(2) The contractor and the engineer guarantee jointly and severally to the employer responsibility for all damages occurring within a period of ten years from the date of delivery due to latent defects in the works that were not apparent at the date of the execution of the taking-over certificate. Decennial liability covers defects that cause total or partial demolition of the construction or other permanent works. In addition, decennial liability covers all defects that either render the works unfit for their purpose or weaken the strength of the works.

(3) The joint and several liability of the contractor and the engineer is a strict liability. Thus, both the engineer and the contractor are presumed in default when the demolition or the defect that endangers the solidarity and security of the work has occurred within ten years of delivery. The contractor will be responsible for defects occurring under decennial liability even if such defects arise as a result of unsuitable soil conditions or when such defects are due to apparent defects in the design. However, the contractor can set aside his liability in one of the following events: default of the employer, an event of force majeure, and third-party interference or interference of another contractor amounting to force majeure. Finally, the architect or the engineer who only undertakes to prepare the designs without being entrusted with the supervision of their execution is responsible only for defects resulting from his designs.\(^\text{77}\)

C. EMPLOYER'S RISKS FOR LOSSES OR DAMAGES DUE TO DEFECTIVE DESIGNS (FIDIC CONDITIONS CLAUSE 20.4(g))

In English law a line of authorities imposes an implied obligation\(^\text{78}\) on the contractor to warn the employer of the design defects that he believes exist.\(^\text{79}\) As already indicated, clause 8.1 of the FIDIC conditions provides the obligation of the contractor to notify the engineer with a copy to the employer of any error, omission, fault, or other defect in the design or specifications for the works that he may discover when reviewing the documents of the contract or during the execution of the works.\(^\text{80}\) In effect, the contractor is responsible for checking the specifications and design, and then reporting to the employer any defects found

\(^{76}\) Yaseen, supra note 64, at 665.

\(^{77}\) ECC art. 652.

\(^{78}\) Lloyd, supra note 68, at 142.


prior to the execution of works or during their performance. If the contractor discovers an error during his review of the tender documentation, such error must be reported to the engineer immediately, and not after the signing of the contract.

In general, a contractor's duty to warn in civil law is founded on the doctrine of the good-faith execution of contractual obligations. Consequently, the contractor would be responsible for such duty even if it is not incorporated in the conditions. The contractor is obliged not only to warn the employer but also to check the design in the first place. The contractor would be liable for any defaults in the design if he did not comply with the duty to warn. He will be liable to the employer for any damages that occur within the ambit of the decennial liability, irrespective of clause 20.4(g).

In public-works contracts the contractor would be liable for any defaults in the design even if it was not supplied by him, if he accepted it and executed it without a reservation. According to article 78 of the executive regulations of Law No. 9, the contractor is obliged to undertake all necessary measures required to ensure the fitness of specifications and design, and has to inform the contracting authority of his comments on such specifications and design in an appropriate time. In addition, the contractor is responsible for all such drawings and designs if they were submitted by him. In this connection it is difficult to reconcile this provision with subclause 20.4(g) of the FIDIC conditions, under which the employer bears all losses and damages due to the design that is not provided by the contractor.

The question that may arise in this context is whether clause 20.4(g) under the FIDIC conditions is valid, at least in the course of public-works contracts. Clause 20.4(g) appears unenforceable in the course of public-works contracts. The contractor would be liable for the design not supplied by him if he fails to inform the employer of any defaults or errors in such design, whether such defaults are conceptual defaults (for example, if the design of a structural element allows an inadequate factor of safety) or errors in detailed design. Thus, any loss or damages due to design defaults cannot be allocated to the employer.

However, article 78 of the executive regulations should be interpreted as an exceptional provision from general principles of law. According to the general principles, the liability of the contractor for design can be imposed in only one of the following cases: (i) where such designs are supplied by the contractor

81. However, Corbett argues that under English law the contractor is not obliged by implication to perform a check of design, and the obligations of the contractor to perform his duties of due care and diligence are not extended to the discovery of defaults. Id.
82. Id.
83. SoRour, supra note 65, at 124.
84. FIDIC conditions clause 20.4(g) provides that "[t]he Employer's risks are: . . . (g) loss or damage to the extent that it is due to the design of the works, other than any part of the design provided by the Contractor or for which the Contractor is responsible."
under a turnkey (build and design) contract; (ii) where a design variation was supplied by the contractor in his offer to alter the original documents; or (iii) where a technical design or any variation was added by the contractor within the scope of the contract. Thus, subclause 20.4(g) should be applied to those cases where the defects cannot be discovered by an experienced contractor. If the error of design is a matter of opinion, the contractor must form a requisite opinion. This requirement may create a greater burden on the employer who seeks to claim from the contractor under article 78.

D. Liquidated Damages (FIDIC Conditions Clause 47.1)

Clause 47.1 of the FIDIC conditions, titled "liquidated damages for delay," is a standard English type of liquidated damages for delay of completion. This clause reflects two principles under English law. First, where the damages are fixed by the parties to the contract, this sum will be recoverable only if it is classified as liquidated damages but not as a penalty that is irrecoverable, or at most can be claimed only with proof of loss. Liquidated damages are genuine pre-estimates of damage, whereas a penalty is "in terrorem of the offending party." Mr. Justice Lopes in Law v. Redditch Local Board has drawn the distinction in the following words:

The distinction between penalties and liquidated damages depends on the intention of the parties to be gathered from the whole of the contract. If the intention is to secure performance of the contract by the imposition of a fine or penalty, then the sum specified is a penalty; but if, on the other hand, the intention is to assess the damages for breach of the contract, it is liquidated damages.

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85. Corbett, supra note 80, at 19.
86. FIDIC conditions clause 47.1 provides:
   If the contractor fails to comply with the Time for Completion in accordance with Clause 48, for the whole Works or, if applicable, any Section within the relevant time prescribed by Clause 43, then the contractor shall pay to the Employer the relevant sum stated in the Appendix to Tender as liquidated damages for such default and not as a penalty (which sum shall be the only Monies due from the contractor for such default) for every day or part of a day which elapses between the relevant time for completion and the date stated in a Taking-Over certificate of the whole of the works or the relevant Section, subject to the applicable limit stated in the Appendix to Tender. The Employer may, without prejudice to any other methods of recovery, deduct the amount of such damages from any Monies due or to become due to the Contractor.

(Emphasis added.)
87. WALLACE, supra note 10, at 86.
89. EGGLESTON, supra note 88, at 53.
91. [1892] 1 Q.B. 127.

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Second, if a valid liquidated damages clause is applied, the real loss of the employer is irrelevant and he will be only entitled to recover the exact amount calculated by the clause, regardless of his ultimate damages. Further, liquidated damages are recovered even when it is apparent there has been no loss.

Those two principles incorporated in clause 47.1 are subject to revision under Egyptian law. The distinction between a liquidated-damages clause and a penalty clause has no legal consequences, and indeed the two terms are used interchangeably in private-law contracts. And no application to those norms is specified in *Dunlop Pneumatic Tyre Co. v. New Garage & Motor Company Ltd.* within the ambit of Egyptian law. In addition, in the course of public-works contracts, penalties are provided by law not only to indemnify the employer, but also to penalize the contractor irrespective of any damages actually suffered in order to induce him to perform. The public employer is entitled to the amount stipulated in the contract in the case of delay even if he has not suffered any losses. Thus, as Mr. El Shalakany has suggested, the phrase "as liquidated damages and not as penalty" incorporated into the FIDIC conditions should be omitted in the course of public-works contracts.

In the course of private contracts under the ECC, unlike under English law, the court may lower or increase the amount of fixed damages under particular conditions. If the court finds that the liquidated damages or penalties exceed the real injury to the employer, it may reduce the agreed amount if the contractor proves that the amount fixed was grossly exaggerated or that the principal obligation has been partially performed. Also, the contractor may not have to pay the sum of liquidated damages if he proves that the employer has not suffered any losses. On the other hand, the employer may claim an increased sum if he proves that the contractor has been guilty of fraud or gross negligence.

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92. One authority suggests that a plaintiff can recover more than the agreed sum if it is held to be a penalty. See *May*, supra note 41, at 229.


94. Art. 81 of Executive Regulations of the Public Tender Law. Therefore, penalty clauses (liquidated damages) in the Civil Code are different from penalty clauses stipulated in public-works contracts. In public-works contracts, losses are not required for the entitlement of the stipulated amount, whereas such amount is not due under civil-law contracts unless there is a damage. See Decision of Dec. 20, 1966, Civ. 17, 1962 [Egyptian Supreme Court]; see also Decision of Oct. 26, 1965, Civ 16, 922.

95. El Shalakany, supra note 6, at 274.


97. ECC art. 224.2.

98. *Id.* art. 224.1.

99. *Id.* art. 225.
authority of the judge to decrease or increase such liquidated damages is a matter of public policy. In this connection Professor M. Shafeek says:

I believe that the concept of liquidated damages under English law (the entitlement for liquidated damages even in the absence of any losses; and negation of the judge's authority to amend the agreed amount) is void in Egyptian law, since art. 224.1 of the Civil Code requires the losses for the entitlement of liquidated damages, and empowers the judge to lower the amount of damages in particular cases, and clause 224.3 adds that any agreement to the contrary is void.

E. VARIATION OF WORKS (FIDIC CONDITIONS CLAUSE 51.1)

Variation or change, as used in international construction contracts, refers to an alteration in one or more aspects of the construction of the works from that required under the contract documents. Variation orders under the FIDIC conditions are invested in the engineer. The scope of variation according to clause 51.1 of the FIDIC conditions includes alteration of the form or the design, quality, or quantity of the works or any part that may be necessary or appropriate, according to the discretion of the engineer. Changes of works by addition or omission may also include changes of materials, equipment, or any goods to be used in the works. In addition, changes of works programs are deemed to be variations under clause 51.1.

The main purpose of the variation clause is to give the employer the right to vary the works without the consent of the contractor. According to the principle of pacta sunt servanda under Egyptian law, without a variation clause the employer could only vary the work with consent of the contractor. The contractor

100. Id. art. 224.3.
103. FIDIC conditions clause 51.1 provides that

The Engineer shall make any variation of the form, quality or quantity of works or any part thereof that may, in his opinion, be necessary and for that, or if for any other reason it shall in his opinion be appropriate, he shall have the authority to instruct the contractor to do and the contractor shall do any of the following:
(a) increase or decrease the quantity of any work included in the contract,
(b) omit any such work (but not if the omitted work is to be carried out by the Employer or by another contractor),
(c) change the character or quality or kind of any such work,
(d) change the levels, lines, position and dimensions of any part of the work,
(e) execute additional work of any kind necessary for the completion of the works, or
(f) change any specified sequence or timing of construction of any part of the works.

No such variation shall in any way vitiate or invalidate the contract, but the effect, if any, of all such variations shall be valued in accordance with clause 52 provided that where the issue of an instruction to vary the works is necessitated by some default of or breach of contract by the contractor or for which he is responsible, any additional cost attributable to such default shall be borne by the contractor.
must comply with the engineer's instructions in this respect. In any event, the power of the engineer to order variation is limited in nature and time. Thus, the contract should emphasize that these changes are permitted to the works but not to the other terms of the contract, which cannot be altered or modified without the prior consent of the contractor. Also, such variation should be instructed before the completion of works; hence no variation should be instructed in the event of defect liability.

If the FIDIC conditions fall within the public-works contract, the employer is empowered not only to order additional works, but also has the power to order unexpected, but not new, works. Additional works are works of the same nature as those originally agreed upon in the contract. For instance, an order to expand the dam length agreed in the contract is an additional work. Unexpected works are those that were not foreseen at the time of the concluding of the contract, but become necessary during the performance of the works. Unexpected works refer to any works not stipulated in the specification or any other document, but not extrinsic to them. The following works were considered unexpected works and therefore, the contractor was obliged to carry them out: the repair of a canal demolished because of the collapse of a bridge in the course of constructing a railway line; the construction of side canals to drain the waters in the course of constructing new pavements of underground stations; and replacement of an arch with hole by another with five holes. Since the additional works are of the same nature as the original works, they are evaluated at the rates and prices set out in the contract. On the other hand, unexpected works are evaluated according to different rates from those contained in the contract.

This distinction is similar to those cited in subclauses 52.1 and 52.2. Indeed, the above distinction between unexpected works and additional works can be used as an objective criterion by arbitrators in order to review the power of the engineer in the evaluation of varied works and to review whether such works should be subject to the prices and rates contained in the contract.

In any event, the power of the employer to vary the works in public-works contracts is restricted by two substantial factors. First, the additional works should remain within the technical and economic capacity of the contractor. That is, the alteration should not lead to an economic nonequilibrium of the contract. Second, the Council of State has ruled that new works that are alien to the original works cannot be permitted. The following works have been considered new works: a request to move construction three kilometers from the site of the original

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105. Id.
106. EL TAMAWY, supra note 18, at 490.
107. Id.
108. Id.
works; an order to a contractor who is carrying out a maintenance contract to undertake a construction job; an order to a dredging contractor to carry out a dewatering job; and an order to follow a new method of execution radically different from that originally agreed.

According to clause 52.2, the contractor would be entitled to claim additional payment for extra works ordered under clause 51.2, if he has given the engineer a notice of intent to claim extra payments, a varied rate, or a price within fourteen days of the date of the variation order, and before the commencement of the varied works. Equally, the contractor is entitled for these additional payments if he has received notification from the engineer of his intention to vary a rate or price within the period indicated above. In the view of English case law, such notice is a condition precedent for any additional payments for extra works.

Under English law, failure to comply with this notice requirement will bar the contractor's claims for extra money based on clauses 51 and 52.

This solution is questionable under Egyptian law. It is difficult under Egyptian law to characterize such notice as a condition precedent. The failure of the contractor to comply with the notice requirement will not bar him from claims under the terms of the contract. In the same line, failure of the contractor to give his intention to claim to the engineer within twenty-eight days after the event giving rise to claim will not preclude the contractor from an arbitration claim. However, this claim shall not exceed the amount that can be verified by contemporary records.

IV. Conclusion

Despite the widespread use of the FIDIC conditions in Egypt and other Arab countries, the operation of some FIDIC clauses is difficult to reconcile with Egyptian law applicable to projects carried out in Egypt. The legal framework of the FIDIC conditions in Egypt is different in some substantial aspects from English law, which constitutes the legal basis of the FIDIC conditions. At the same time, the FIDIC conditions are used in Egypt and other Arab countries for purposes that are not addressed under the terms of the contract. Such amendment is a result of certain inconsistencies between practice in Egypt and Arab Middle Eastern countries, and construction industry tradition in English practice. Some of the FIDIC conditions' concepts are alien to Egyptian and Arab Middle Eastern practice (for example, the quasi-arbitration role of the engineer and the invisible

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110. Increases or decreases in quantity are not subject to clause 52.2 relating notices since they are not "varied works" instructed by the engineer pursuant to clause 51. See H. Lloyd, *The Fourth Edition of the FIDIC Conditions for Works of Civil Engineering Construction: Some Comments on the Clauses Relating to Payment Conditions and Variations*, 5 INT’L CONSTRUCTION L. REV. 41 (1988).

111. MAY, supra note 41, at 96; see WALLACE, supra note 10, at 104.

role of the employer under the terms of the contract). However, this position has dramatically improved in the fourth edition of the FIDIC conditions.

Movement toward reconciliation between civil-law principles and common-law principles must be maintained in the next edition, which is expected to be issued in 1997. Further efforts at internationalization of the concepts and language of the English text of the FIDIC conditions are required to make translation to Arabic and other languages meaningful and effective. The Vienna Convention for the International Sale of Goods has proved that such reconciliation is not impossible to achieve. This reconciliation is necessary for a real international standard contract in the construction industry.