The International Federation of Consulting Engineers, generally referred to as FIDIC, is an organization well known to those involved in the drafting and negotiation of major international turnkey contracts. For many years, FIDIC has supplied the industry with standard contract forms, which it regularly revises to reflect evolving international trade practices. In 1998, FIDIC issued the test edition of the Conditions of Contract for EPC Turnkey Projects, a new standard form also referred to as the "Silver Book" because of the color of its front cover (1). Following the review by FIDIC of comments received on the test edition from various organizations, the first edition of the Silver Book was released during the course of 1999 (2). Was there really a need for a new model form for international turnkey contracts? After considering this question, we will address the main features of the Silver Book and discuss how the international construction industry and the legal profession are likely to receive this new standard form.

I. THE NEED FOR A NEW STANDARD FOR INTERNATIONAL TURNKEY CONTRACTS

The FIDIC Silver Book is not the first standard form available to the industry for international turnkey contracts. Other organizations have published standard forms in the past ten years. The 1988 MF/1 Conditions for the Supply of Electrical, Electronic or Mechanical Plant (3), the 1993 New Engineering Contract (4) and the 1995 Conditions of Contract for Process Plant (5) are examples. FIDIC itself produced as recently as 1995 an earlier standard form for turnkey contracts, the Conditions of Contract for Design-Build and Turnkey, also referred to as the "Orange Book" (6).

Why then did FIDIC produce a new form, just three years later? One reason could be the limited success that the Orange Book has enjoyed since its 1995 release. It appears, however, that the main reason behind the issuance of the Silver Book was the need to create a standard form that reflects the recent development, in the world market for turnkey infrastructures, of EPC contracts (7) involving private project financing (8).

EPC turnkey projects are the result of a wave of liberalization of certain economies, mainly in Asia and Latin America. This is especially true of the electricity sector where deregulation and privatisation have enabled independent power producers to enter the market, thereby creating a significant number of privately financed power plants construction projects in developing countries (9). By allowing investors to be awarded operation concessions for certain infrastructures (10), such as power plants or water supply and treatment systems, many countries have enabled the investment of private funds in the development of local economies (11). Compared with more traditional projects where the turnkey contractor
deals only and directly with a public or semipublic entity, EPC turnkey projects involve multiple parties and a complex nexus of contracts (12).

An interesting feature of such projects is that the purchaser (usually called "Owner") is almost invariably a company created specifically for the particular project (a so-called "Special Purpose Company") (13). From the perspective of the Contractor, this company is nothing more than a client with no assets, i.e. an empty shell.

Another major feature of EPC projects is the strong involvement of the financing institutions in the contractual relations between the Contractor and the Owner. It is not surprising for the banks (usually called "Lenders") to be entitled to specified rights of supervision during the performance of the contract, such as the right to witness major tests or to visit the construction site (14).

These particular features of EPC turnkey projects create the need for specific contract terms which are not needed for contracts involving publicly financed turnkey infrastructures. Because the Silver Book is specifically designed for the private financing context (15), it presents to our knowledge the first and only international standard form for EPC turnkey projects.

II. THE SILVER BOOK IN A NUTSHELL

As in any other standard form of turnkey contracts, the Silver Book contains a detailed description of the general obligations imposed on the purchaser (referred to in the FIDIC terminology as the "Employer") and the Contractor.

Giving the Contractor access to the site (article 2.1), assisting the Contractor with obtaining licenses and permits (article 2.2) and, of course, paying the contract price (article 14) are among the traditional obligations of the Employer. An interesting feature of the Silver Book is the requirement that the Employer provide the Contractor with reasonable evidence that financial arrangements have been made to enable the Employer to pay the contract price (article 2.4), in the absence of which the Contractor may terminate the contract (article 16.1a). This obligation clearly takes account of the fact that, as explained earlier, the Employer in a typical EPC turnkey project is a Special Purpose Company with minimal assets. The Contractor's payment protection therefore depends heavily on the soundness of the financing package.

The Contractor's main obligations are to obtain the necessary permits and licenses (article 1.131), to carry out the design of the works (article 5.1), to provide the Employer with the required operation and maintenance manuals (article 5.7), to put in place the agreed performance bond(s) as security for the due performance of the contract (article 4.2) and, more generally, to provide the works on a turnkey basis and remedy defects in accordance with the contract (article 4.1). A particularity of the Silver Book is to place on the Contractor the risk of unforeseen ground conditions. This results from the general principle according to which the Contractor is to accept "total responsibility for having foreseen all difficulties and costs of successfully completing the Works" (article 4.12) (16). The rationale behind this
burden allocation is the recognition that in many EPC projects the Lenders rely heavily on the certainty of the project costs and schedule. As a result, Lenders insist on limiting the number of possibilities for the Contractor to claim extra costs or extra time to perform the works (17).

In addition to the description of the Employer's and Contractor's respective obligations, the Silver Book contains a full array of standard clauses for major turnkey contracts. Among the best known are those:

- Providing for i) the payment of damages in the event of a delay in performing the works (article 8.7) or ii) a reduction in the contract price to account for the failure of equipment supplied to perform as guaranteed (article 9.4);
- Describing the procedure for the take-over of the works by the Employer (article 10);
- Detailing the Contractor's obligations to remedy defects in the works (article 11);
- Stating the conditions under which the Employer may order variations in the scope of work (article 13); and
- Enabling a modification in the contract price and schedule as a result of a change in laws affecting the works (article 13.7).

Other key clauses are those relating to the parties' respective indemnity obligations (article 17.1), the right to suspend and/or terminate the contract (articles 15 and 16), the allocation of risk and responsibility for the care of the works (articles 17.2, 17.3 and 17.4), the exclusions and limitations of liability (article 17.6), and the conditions under which a force majeure event may be claimed (article 19).

Finally, the Silver Book contains a detailed clause regarding the settlement of disputes which, absent an agreement to the contrary, are to be settled under the arbitration rules of the International Chamber of Commerce (article 20).

A notable characteristic of the settlement of disputes clause is the provision of a fast track pre-arbitration procedure through the constituting of a Dispute Adjudication Board. The Board must render decisions within 84 days from submission of the matter in dispute (article 20.4). Disputes will go to full-fledged arbitration only if the parties are not satisfied with the outcome of the litigation in front of the Dispute Adjudication Board. Apart from the fact that such fast track procedure seems to correspond to a trend in the international construction industry (18), it appears to be justified in the light of the provisions of article 3.5 of the Silver Book. According to this article, the Contractor is to give effect to Employer's determinations made on various contractual issues unless the Contractor sends to the Employer a notice of dissatisfaction with such determinations within 14 days, at which point either party may refer the dispute to the Dispute Adjudication Board. An example of such determinations would be those made on the issue of a contract price and schedule adjustment following a change in laws affecting the performance of the works (article 13.7). Obviously, the Employer's determinations on extra time or extra costs will invariably be quite significant to the proper performance of the works by the Contractor. It is therefore in
both parties' interest to solve in a timely fashion any dissatisfaction on such determinations, so as to avoid any detrimental effects to the harmonious continuation of their contractual relations. This is exactly what the Dispute Adjudication Board procedure is designed to allow.

In summary, the Silver Book addresses with a high level of sophistication the numerous issues inherent to turnkey projects.

III. WHAT IS THE FUTURE OF THE SILVER BOOK?

Several factors need to be considered in evaluating the probable use of the Silver Book.

First, it is likely that potential Employers and Contractors will be dissatisfied by the position taken by the Silver Book on certain crucial issues. For example, Contractors will undoubtedly challenge the principle that they are responsible for ground risks, since no reasonable Contractor will commit to a fixed price and schedule without the possibility of making modifications in the event of unforeseen ground conditions (19). Employers, on the other hand, are likely to require some more clarity as to what is to be understood in article 2.4 by "reasonable evidence" that financial arrangements have been made to enable payment of the contract price. As a result, Employers and Contractors may both view the Silver Book as a contractual document that may not be implemented without substantial changes, so that the ready-to-use advantage that standard forms ordinarily offer may be lost. It has been argued, though, that in a typical BOT, the EPC Contract is nothing more than a mere sub-contract between the special purpose company and the construction contractor so that "it should be possible to fashion it from an existing model, which incorporates the particularities of traditional financing structures" (20). The need to amend the Silver Book to suit a particular project or the general corporate policy of the participants should not, therefore, be viewed as a significant impairment to its possible use.

Second, although the Silver Book is primarily intended for EPC turnkey projects involving private finance, it appears that several features typically present in such projects are missing. For example, the Lenders systematically insist in such projects on the signature of a so-called "direct agreement with the Contractor whereby, in the event of default of the Employer under the loan agreements, the Contractor accepts to make payments due under the EPC contract directly to the Lenders (21). Surprisingly, the Silver Book does not provide a sample form of direct agreement, merely making reference in article 1.71) to the possibility of an assignment of moneys due under the EPC contract to a bank or financial institution. The Silver Book is generally silent on the Lenders' involvement in the project and makes no concrete references to the Lenders' rights or those of their designated engineer. It should be noted, however, that the Silver Book guidance notes for the preparation of particular conditions recognize that there may be a need for additional clauses to satisfy the requirements of financing institutions (22). Again, it will be the responsibility of the potential users to tailor the Silver Book via the special conditions to respond to the particular desiderata of the lenders.
Finally, the Silver Book arrives on the market at a time when EPC projects developed with recourse to private project finance have been in existence for several years. The major American and English law firms with significant project finance departments have already developed their own standard form of EPC contract that they use when hired as outside legal counsel by private developers. It would be surprising if they simply substituted the Silver Book for their own standard. However, it has been recently underlined by several authors that the use of standard contract conditions, such as the FIDIC model contracts, reduces legal costs and speeds up contractual negotiations (23). This may create an incentive for Employers to instruct their outside legal advisors to use the Silver Book as the main basis of the tender documentation.

It is clear that a few years will be needed to fully appreciate how the Silver Book is being received by the international construction industry. Certain potential users will perhaps be reluctant to have recourse to the Silver Book as the sole source of contract terms in upcoming EPC turnkey projects. Because it represents an official norm, however, it will certainly be used indirectly by Employers or Contractors as a negotiating tool in the course of contractual negotiations. "What does the Silver Book say on this issue?" or "Our proposed clause is in line with the norm for EPC contracts as reflected in the Silver Book" could become recurrent expressions in the negotiation rooms of many parties to turnkey projects in the years to come. This should be viewed as a great achievement for the FIDIC organization, which has produced an international model form in an area where a standard was much needed.

Endnotes

1. The release of this test edition was accompanied by several launching conferences at the end of 1998 in London and other major international cities.
2. Copies of the first edition of the Silver Book can be obtained from FIDIC, PO box 86, 1000 Lausanne 12, Switzerland.
3. This model form is issued by the Institution of Electrical Engineers, the Institution of Mechanical Engineers and the Association of Consulting Engineers, UK.
4. This model form is issued by the Institution of Civil Engineers, UK.
5. This model form is issued by the Institution of Chemical Engineers, UK.
7. The letters EPC stand for "Engineering, Procurement, Construction". The term "EPC contract" aims at making it clear that the object of the contract is the supply of a turnkey infrastructure since the EPC Contractor is to develop the design of the infrastructure, procure the equipment and materials needed, and then construct such infrastructure.

10. This is usually done under a Build, Operate, Transfer (BOT) approach whereby private developers are awarded the right to construct and operate the infrastructure for several years (usually between 15 and 20 years) and are then to transfer it to the State which awarded the concession. On this subject, see J-M Loncle, "Big infrastructure projects: the build, operate, transfer (BOT) approach/Grands projets d'infrastructures : le montage Build, Operate, Transfer (BOT)", International Business Law Journal/Revue de Droit des Affaires Internationales, No 8, 1997, p. 945.


12. It should be noted that the EPC contract represents only the construction phase in the BOT or similar privately financed scheme. For an overview of the contractual structure in a typical privately financed infrastructure project. see the Guide to financing Build-Operate-Transfer projects produced by Wilde Sapte, Euromoney Publications PLC, U K, 1997, p. 37.

13. A good and concrete example of the creation of a special purpose company is provided by the PECHINEY led project for the construction of a factory for aluminium electrolysis in Dunkerque (France) described by A. Bied-Charreton and D. Musson in "The legal separation of the owner and the developer in the operation of large scale industrial projects: new approaches/La dissociation juridique du propriétaire et de l'exploitant dans la conduite de grands projets industriels: nouvelles approches", International Business Law Journal/Revue de Droit des Affaires Internationales, No 1, 1992, p. 3.

14. The banks normally designate their own engineer (usually called the "Lenders' Engineer") to that effect.

15. This intention is stated clearly in the FIDIC's introductory note to the Silver Book.

16. The Contractor will therefore not be entitled to claim extra cost or extra time because of unforeseen ground conditions, except in the event of the discovery of fossils or other articles of antiquity (article 4.24).

17. See in this regard the FIDIC's introductory note to the Silver Book.


19. It must be underlined that the Silver Book guidance notes for the preparation of particular conditions recommend to allocate to the Employer the underground risks when the project contemplated involves substantial foundation works (see p. 8 of
the guidance notes). However, it remains to be seen to what extent Employers will indeed follow this recommendation.


21. It is also customary in such direct agreements for the Contractor to accept a provisory stay of its termination rights under the EPC contract while the Lenders try to remedy defaults of the Employer by replacing, if necessary, the defaulting Employer by a substitute obligor.

22. See page 16 of the guidance notes.