Comparison of the tender documents of the works awarded by FIDIC and Public Procurement contracts

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Abstract

Public Procurement Law No. 4734 has been developed in line with international procurement legislation standards with significant changes made in recent years. In this study, the tender documents of two construction works, one of which was awarded according to Public Procurement Law No. 4734 and the other one was awarded according to the FIDIC contracts, were compared. In the context of making public procurement legislation more useful, making more efficient use of public resources as well as protecting the rights of the contractor, evaluations were made and recommendations were given.

Keywords: Public Procurement Legislation, FIDIC, Dispute, Arbitration

1. INTRODUCTION

Public Procurement Law No. 4734 is used for public procurement in our country. In addition to this, in recent years, especially the World Bank and European Union funds and grants have been awarded for FIDIC specifications.

Administrations should aim at effective utilization of public resources in tendering. In this study, two similar construction works in accordance with public procurement legislation and FIDIC (International Federation of Consulting Engineers) specifications were compared on their tender documents. The importance of this comparison is to analyse whether the public procurement legislation fulfils the requirements of today and to determine the applicability of the positive practices contained in the FIDIC specifications to the PPL legislation.

In literature, Akın (2006) worked on duties, authorities and responsibilities of the engineer according to FIDIC rules. Ndekugri, Smith and Hughes (2007) studied about the engineer under FIDIC's conditions of contract for construction. Uğur and Erdal (2008) showed the effect of liability and risks of employer, engineer and contractor on the construction period in FIDIC general conditions of construction works. Akıncı (2007), Dalmaz (2012), Kodakoğlu (2007) reviewed arbitration issue in detail. Alpkökin (2017), Aydın (2010b), Atamer, Süzel and Geisinger (2016), Köksal (2013), and Koldaş (2008) emphasized the ways of dispute resolution. Akıncı (1996), Atagündüz (2016), Bunni (2005), Aydın (2010a), worked on FIDIC contracts. Seppala studied about the contractors' claims under the FIDIC contracts. Ereli (2014) made a comparative analysis of FIDIC red book and public procurement legislation.

2. FIDIC CONTRACTS

FIDIC was founded in Lausanne in 1913 as an International Federation of Consulting Engineers. The founding principles of the Federation were determined as" Quality, Integrity and Sustainability". While the growth of the federation, founded under the leadership of Belgium, Switzerland and France, was slow due to World War II until the end of 1940s, FIDIC became a truly international federation in 1959 with the participation of Austria, Canada, South Africa and USA.

The purpose of the organization is to provide the development of an international consultant engineering institution. For this purpose, international educations are given and meetings are organized by FIDIC every year. Documents that appeal to the employees of the construction world are prepared and works are carried out with the relevant organizations (Atagündüz, 2016).

The purpose of the FIDIC organization is summarized below:

- Guidance to consulting engineers,
- Developing common professional benefits by increasing the moral and professional standards of the consultant engineers,
- Providing information exchange between members,
- Discussing common problems related to construction contracts between member associations, representatives of international financial institutions, engineers and lawyers,
- To be authorized in commercial disputes,
- To introduce and improve the international purchasing standards,
- In order to help the advancement of the engineering profession in developing countries, it is necessary to organize various seminars, conferences and events, thereby leading to permanent developments by determining strategies and adapting to sectoral globalization (Atagündüz, 2016).

FIDIC contracts are widely used in international construction projects. The World Bank and many other loan financing agencies require the use of FIDIC contracts. Turkish companies have been carrying out projects based on FIDIC contracts since 1972 (Koldaş, 2008). Turkey became a member of FIDIC through the Turkish Consulting Engineers and Architects Association in 1987. FIDIC currently has 100 members.

FIDIC is both an international and a private organization. In the FIDIC contracts, the general and private requirements of the project are not legally binding. The employer and the contractor may use the FIDIC clauses in the contract with or without modification. In disputes between the parties; for the interpretation of contractual provisions and making binding decisions, firstly arbitration court, then the courts of higher jurisdiction, which the parties agree to settle the disputes, have the authority to control the decision of the domestic law and the arbitral court (Uğur and Erdal, 2008).

FIDIC conducts its activities in the form of committees and task groups. The Committee of Contracts, which is responsible for supervising the standard specifications prepared by the Arbitration Committee, Business Practices Committee and FIDIC, are the leading committees. Capacity Building Task Group, Integrity Management Task Group, Quality Management Task Group, Member Fees and Right to Vote Task Group, Sustainable Development Task Group, Risk Management Forum and Young Professionals Forum are another structural bodies that are working to help FIDIC Board of Directors to make decisions more accurate (Aydın, 2010a).

The committees that prepare the FIDIC rules evaluate the practices of published type contracts and give feedbacks by means of their members in the world and make the necessary studies for better practices through changes and corrections. FIDIC is an organization that can renew itself with the versions it publishes and gives importance to active knowledge and experience sharing. The Red Book, which is the most widely used book in FIDIC applications, showed that it has not been indifferent to changing conditions by making its 5th edition in 1999. In the face of the fact that every construction project has its own characteristics, it cannot be expected that an organization that renews itself and is accepted worldwide will not be indifferent to differences. FIDIC prepared different books considering the differences in project, responsibility and design and put them into the service of practitioners (Aydın, 2010a).

FIDIC standard contracts consist of eight books. These are listed as below:

a. Red Book (including the construction and engineering works that the engineer or his or her representative engineer has designed)
b. Yellow Book (the design task is given to the contractor)
c. Silver Book (for the turnkey projects in which the engineer does not work and instead the workplace representative is involved, and design is made by the contractor)

d. Green book (Short-term jobs with a budget of less than $ 500 000 and six months duration)
e. Orange book (used in FIDIC design-built and turnkey projects where workplace representative takes place instead of the engineer)
f. Gold book (The book used for the works that the contractor makes the design of the work and operate the plant after the construction)
g. Turquoise book (The book used for construction projects on sea and river, the employer or contractor may make design)
h. White book (for the contracts between employer and engineer)

2.1. The engineer

Construction contracts usually consist of two sides as employer and contractor. However, there is also a third party in FIDIC contracts, which is also referred to as an engineer or a consultant engineer. The engineer is independent and impartial, also it is an institution that has a voice in contract management.
It is very important for the engineer to be impartial and independent against the contractor and the employer in FIDIC contracts (Helvacı, 2001). Because, not only the engineer is the employer's representative to supervise the work on behalf of the employer and to ensure that the contractor carries out the works in accordance with the terms of the construction contract, but also he/she supervises the construction, performs some other administrative functions, and gives decision in the request of the contractor for additional payment or extension of time and the decision to settle the disputes under the contract. So, the engineer is not expected to act solely in the interests of the employer (Seppala, C. R., 1986).

2.1.1. Duties of the engineer

The engineer has responsibilities to the employer and the contractor in FIDIC contracts. The engineer is primarily responsible for the execution of the works in accordance with the contract between the employer and himself. The contractor is responsible for the design before signing the contract. Engineer also serves as arbitrator / mediator for the inspection of the work and the solution of the problems between the contractor and the employer after the contract is signed. (Akın, 2006). The engineer, along with his other duties, is an impartial and independent third party that seeks to keep the balance fairly between the contractor and the employer. The engineer cannot make some decisions on his own without the employer's approval. These can be described as follows:

a. Due to unforeseen physical circumstances, the contractor can be given additional time or additional payments.
b. To determine the currency of any amendment to the contract price for a change in the contract (Ndekugri et. al., 2007).

No contract exists between the engineer and the contractor. The Contractor cannot make a claim against the engineer by asserting his contract with himself and the employer. The engineer can only be held liable under certain limits to the legal extent. The engineer can be qualified as defective if he / she acts careless in matters that he/she needs to pay attention to the employer. If the contractor makes loss due to engineer's failure, the employer is liable for the loss of money because the engineer is the assistant / deputy of the employer. For this reason, the contractor can only sue the employer (Aydın, 2010b: 38).

2.2. Duties of employer

The employer must take some responsibilities for the work to proceed properly. According to the red book these can be specified as follows:

- Identifying the main elements of the project, such as the location and staff involved in the project.
- Assigning an engineer to manage the contract.
- Delivering the construction site to the contractor.
- Giving information, instructions, permits and approvals, if necessary.

- Avoiding any movement to prevent the progress of the workflow or interfere with the progress of the workflow.
- Providing materials and conducting works for some of the works specified in the contract.
- Assigning expert subcontractors and suppliers as necessary.
- To ensure that the contractor fulfills all tasks.
- Making the progress payments in time (Bunni, 2005: 209).

2.3. Duties of contractor

The contractor's responsibilities according to the 4th edition of the FIDIC red book can be summarized in five articles:

- Completion of the construction within the period specified in the contract, and paying attention to work.
- Using of the materials, facilities and labor defined in the contract in accordance with the engineer's instructions.
- Provision of securities, indemnities and insurance related to works and obligations during the contract.
- Providing the necessary information and documents for the execution and completion of the works
- To alert the employer when an event occurs that increases the cost or completion time of the job.
- To be able to perform in the design process if needed by the administration (Bunni, 2005: 222).

2.4. Settlement of disputes according to FIDIC contracts

Before 1999 disputes were solved by reporting to the engineer, amicable solutions and arbitration. After 1999 Dispute Adjudication Board (DAB) was started to be used for dispute solutions.

According to FIDIC, disputes were resolved in three stages before 1999. Firstly, the engineer was informed about the dispute between the parties and his decision was taken into consideration. If one of the parties would not agree with the engineer's decision, he had the right to apply for arbitration within the time-limit specified in the contract. Nevertheless, there was a chance to resolve the problem with amicable solutions before going to arbitration (Aydın, 2010b: 50). These amicable solutions can be listed as negotiation, mediation, mini trial, technical referee-expert methods.

Until 1999, the engineer played an active role in resolving disputes. However, as the engineer is acting as “the representative of the employer”, his impartiality has been the subject of discussion. For this reason, it was found appropriate by FIDIC to establish a DAB which will be entitled in the solution of dispute instead of the engineer (Aydın, 2010b: 54,55).

Dispute Boards can be assigned in two different ways. The first one is Continuous Dispute Board, which is appointed by the parties before any dispute arises. This board takes an active role in the management. The second one is the establishment of the Temporary Dispute Board. This board, appointed by the parties when a dispute arises, ends the task after resolving the dispute. Even if not stated in the contract, this board may be reassigned to resolve another dispute as agreed by the parties (Alpkökin, 2017).

DAB consists of one or three persons whose qualifications are appropriate. If the parties do not determine how many people the board will consist of, the Board consists of three persons. In a three-member board, both parties appoint one person with the approval of the other party. The parties determine the third name to lead the presidency by consulting the two appointed members (Köksal, 2013).

During the construction period, when a dispute arises between the parties in relation to the contract or the ongoing construction process, the dispute shall be notified in written to the Board at the request of both parties. DAB explains its justified decision in 84 days. If DAB does not reach any decision in this process, any party that does not wish to be bound by DAB's decision can inform the other party within 28 days after the end of 84 days (Kodakoğlu, 2007).

If DAB makes a decision, the DAB decision becomes final and binding if no party makes an appeal to the DAB's decision in the 28-day period. If either party does not abide by the DAB decision, the other party may go to arbitration. If DAB's appointment is terminated or DAB is unavailable for any reason, the parties may go directly to arbitration (Atamer et. al., 2016: 66,67).

Arbitration

Arbitration may be defined as the resolution of disputes between the parties by arbitrators, who are deemed lawful instead of state judiciary (Akıncı, 2007: 29).

Because of the inability of countries' own laws to meet the requirements for the elimination of disputes arising in international trade, international commercial arbitration has been opened. In international disputes, arbitration is the judicial way that minimizes legal risks and costs (Dalmaz, 2012).

Since the arbitration process lasts much shorter than the courts, the parties are prevented from wasting time and money. The arbitrators who are appointed to the arbitration committee make healthier decisions because they are chosen from the experts who are specialized in their fields. Arbitration decisions are valid in the international arena, but their enforcement is more valid if local courts decide on enforcement. Arbitration decisions are more confidential because they are not obliged to be published like court decisions (Ataseven, 2017).

The arbitrator may be freely elected by the parties. The parties may choose the arbitrator before and after the dispute. The parties may authorize another people to select an arbitrator. The parties are free to determine the number of referees. However, according to the International Arbitration Act (IAA), the number of arbitrators must be an odd number for the decision made to be clear (Akıncı, 2007: 104,105).

There is no special requirement in the IAA to be an arbitrator. Therefore, the referees do not have to have any profession or have a certain level of education. However, since the arbitration is a trial, it is important that the referee is chosen from the jurists. The referees are selected only from real people (Akıncı, 2007: 105).

Place of arbitration may be determined by the parties. If they cannot determine, the referees determine. When selecting the place of arbitration; the conditions such as being suitable for arbitrators and parties, the economic cost of the proceedings, convenient legal system for appealing the decision of the arbitrator are important (Akıncı, 1996: 223).

3.PUBLIC PROCUREMENT LEGISLATION

The Public Procurement Law No. 4734 and Public Procurement Contracts Law No. 4735 which constitute the Public Procurement Legislation are stated below.

3.1. Public Procurement Law no. 4734

The Public Procurement Law No. 4734 (PPL), which replaced the State Tender Act No. 2886 (STA), was published in the Official Gazette dated January 22, 2002 and numbered 24648 and entered into force on January 1, 2003. In the Public Procurement Law No. 4734, tenders can be made in three different methods for construction works: open tender procedure, negotiated tendering and restricted tender procedure.

3.2. Public Procurement Contracts Law no. 4735

Provisions related to the contracts were sentenced with the articles between 50th and 70th of STA. However, in order to comply with the international procurement legislation, the Law No. 4734 and the Public Procurement Contracts Law No: 4735 (PPCL) have been used as separate laws in the tender and contract processes (Köksal, 2005).

The type of contracts to be signed with the bidder who won the tender according to Article 6 of the PPCL numbered 4735 can be qualified as follows:

a) In construction works; based on application projects and their respective list of sites, turnkey lump sum contract on the total price offered by the tenderer for the whole work,
b) In the purchase of goods or services, the lump sum price is calculated over the total price offered by the tenderer for the whole work, with the detailed specifications and the amount determined by the administration.
c) Construction works; unit price contract based on the amount of each item in the unit price table prepared by the administration and multiplied by the unit price offered for each item by the bidder.
d) In construction works; mixed contract in which, for some of the work items total price is calculated from turnkey lump sum price, and for the rest of work items total price is calculated from unit price
e) The individual contract signed between the administration and the contractor, based on the framework agreement.

3.3. Responsibilities of the contractor according to PPCL

The contractor's responsibilities are regulated in PPCL, General Conditions for Construction Works and Turkish Code of Obligations No. 6098. The responsibilities of the contractor can be listed as follows:

1. Submitting performance guarantee
2. Construction of the work
3. Informing the employer
4. Carrying out the work with loyalty and care.
5. Provision of appropriate appliances and staff
6. Handing over the work
7. Warranty of the work against deficiencies

3.4. Settlement of disputes with respect to PPL

Article 53 of Public Procurement Law states the structure of Public Procurement Authority. This institution takes part in the solution of the dispute between the tenderer and the administration in the process from the tender to the signing of the contract. A tenderer participating in the tender submits a written complaint to the related administration within 10 days of the notification of the tender committee decision. If the Administration finds that the tenderer is wrong and rejects his complaint, this time, the petitioner makes a complaint to the Public Procurement Authority. The Public Procurement Authority requests the related tender documents from the administration, examines the tender dossiers which are subject to the complaint of the tenderer. The Public Procurement Authority decides to establish a corrective action by the administration if the tenderer's complaint is justified, otherwise, it rejects the appeal of the tenderer. The Public Procurement Authority does not have the authority to decide for a signed contract. In this regard, the court and enforcement offices, stated in the draft contract, are authorized.

4.COMPARISON OF THE TENDER DOCUMENTS OF TWO PROJECTS AWARDED BY FIDIC AND PUBLIC PROCUREMENT CONTRACTS

In this section, a construction work contracted by a public institution according to the Public Procurement Legislation and a similar construction work, funded by the Instrument for Pre-accession Assistance (IPA) and tendered according to FIDIC specifications, will be compared in Table 1.

Table 1. Documents requested before tender

PPL	FIDIC
Proposal form	Proposal form
Unit Price Proposal Table	
statement of signature or circular of signature	Form 4.3- Warrant of attorney and Signature statement
Warrant of attorney and Signature statement of attorney	
Tender guarantee	Tender guarantee
Balance sheet	Form 4.4- Financial statement of the firm
Income statement	Form 4.5- Financial identity and legal personality forms
The certificate showing that the partner, who will use the graduation certificate, has more than 50% shareholding of the company over the course of five years prior to the issuance of the document.	-
The certificate showing that the partner, who will use the work experience certificate, has more than 50% shareholding of the company over the course of one year prior to the issuance of the document.	-
-	Form 4.2-Organization chart
-	Form 4.6.1.1-Overview of the tenderer's staff
-	Form 4.6.1.2-Listing of the personnel in the contract
-	Form 4.6.3-Work Plan and Schedule
-	Form 4.6.3-Form with sub-contractor information
Work experience certificate	Form 4.6.4- Contractor's work experience
Business partnership declaration	Form 4.6.5- Presentation of the partnership statement with the signature of all partners
In case of legal entity, trade registry gazette	-

Table 1. (Continued) Documents requested before tender

-	Form 4.6.6- Litigation history form
-	Form 4.6.7-Quality Assurance System form
-	Form 4.6.8-Accommodation for the engineer
-	To sign and submit a copy of FIDIC General Conditions in Part 2 of Volume 2
-	Submission of site visit certificate
-	Tenderer and subcontractor to be chosen from qualified countries
-	Form 4.6.9 - Eligibility statement: All of the materials, equipment and services used are from qualified countries.

-	Form indicating that the tenderer does not participate in any other tender with the companies or partners of the consortium.
-	Submission of signed documents indicating that the company is not in any of the export cases specified in Section 2.3.3 of the Practical Guide
-	The average annual turnover of the tenderer in the last three years must be at least 5 500 000 EURO.
-	Construction cash flow for the contract must be at least 2 750 000 EURO per month.
-	The report, prepared by sworn-in certified public accountant for the last 3 financial years, should have a long-term profitability and the bidder should have provided positive net profit for at least two of the last three years.
-	To submit the work experience certificate of the tenderer, which is a wastewater treatment plant with nitrogen and phosphorus removal and has a daily average of at least 8 000 m3 flow rate
-	To submit the work experience certificate of the tenderer, at least one water distribution and/or wastewater/storm water collection network and/or pipeline and/or irrigation and/or natural gas pipelines construction project with a value of minimum **EUR 3,250,000** or equivalent, or two water distribution and/or wastewater/storm water collection pipeline network and/or irrigation transmission pipelines construction projects each with a value of minimum **EUR 2,000,000** or equivalent each. Rehabilitation and/or extension works shall not be accepted as similar works.
-	The tenderer or its nominated sub-contractor must have successfully completed, as prime designer, the process design of at least one wastewater treatment plant with nitrogen and phosphorus removal with a minimum of 8,000 m3/day average waste water flow rate. Rehabilitation and/or extension works shall not be accepted as similar works.
-	The leading member shall meet not less than 50 % of the turnover criteria and financial resources criteria as specified
-	Each member shall meet not less than 25 % of the turnover criteria and financial resources criteria specified

Table 1. (Continued) Documents requested before tender

-	Each individual member must be a registered firm or natural person legally capable of carrying out the specified works. The Joint Venture/Consortium as a whole must be in positive profit account at least 2 of the last 3 financial years
-	The Joint Venture/consortium must satisfy collectively turnover and financial resources and the works experience criteria stated under 12.2.2.a, 12.2.2.b, 12.2.2.c and respectively 12.2.3. (IPA, 2015).

- In FIDIC tenders, the organizational chart of the tenderers and the resume of the personnel to be employed should be presented while the PPL tenders do not require such a condition.

- While quality control documents are requested in FIDIC tenders, for the PPL tenders, when the tender document is prepared in Electronic Public Procurement Platform (EPP), it is left to the selection of the contracting entity.
- In FIDIC tenders, tenderers must fill out the Declaration of Conformity Form 4.6.9, which states that all materials, equipment and services they will use in the construction business are from a qualified country. However, while preparing the tender document in EPPP for PPL tenders, it is left to the selection of the contracting entity.
- In FIDIC tenders, "proper filling and submission of the business plan and program, proper filling and submission of construction application method, submission of the bar graph of critical milestone works, proper filling and delivery of the cash flow calendar" are compulsory. However, such documents shall not be required from tenderers during the PPL tender stage. The winning bidder submits these documents to the administration after the construction site delivery.
- In FIDIC tenders, the tenderer must submit a subcontractor statement during the tender and declare that the subcontractor to be employed is from a qualified country and also has a qualified work experience certificate. In the case of PPL tenders, the subcontractor statement is not generally requested. The winning bidder declares the subcontractor to the contracting entity.
- Tenderers, who are filed a criminal case against or prohibited by other administrations, are identified from EPPP and their tender guarantees are recorded as revenue. In FIDIC tenders, tenderers must submit past court files under the tender dossier before bidding. In addition, before signing the contract, the following documents will be requested from the winning company to obtain information about the company's legal and business register:

1. Submission of the certificate issued by the Trade Registry Office showing that the tenderer did not go bankrupt or the decision about liquidation has not been given and has not been under court administration due to his debts.
2. Presentation of the document received from the Social Security Institution, indicating that the tenderer has no social security premium debt as of the tender date
3. Submission of a document indicating that there is no tax liability in accordance with the provisions of the law of the bidder's country
4. To submit a document, to be taken from General Directorate of Criminal Register and Statistics or Ministry of Justice units, indicating that the tenderer has not been punished within the period up to five years prior to the tender date due to his professional activities
5. Submission of the certificate that the tenderer is not prohibited from professional activities by the trade or professional chamber to which he/she is affiliated as of the tender date (PPL, article 10).

- In FIDIC tenders, a table is asked about the accommodation of the engineers. But, there is no such requirement in the PPL tenders.
- Tenderers participating as a joint venture in PPL tenders may involve in other tenders simultaneously with their partners of the joint venture. However, in FIDIC tenders, tenderers are required to submit a document proving that they have not entered into another tenders with the same partners as a joint venture or consortium.
- In PPL auctions according to Communiqué on Similar Work Groups in Construction Works, to certify the business experience a single business experience certificate or a graduation certificate can be submitted. However, more than one work experience certificates are required for a job in FIDIC auctions. These business experience certificates must be relevant to both design and construction.
- In PPL tenders, the pilot partner of the joint ventures, shall submit a similar business experience certificate that meets at least 80% of their bid, while the other private partners shall provide a similar business experience certificate providing at least 20% of their bids. However, if the private partners do not provide a similar business experience certificate, they must provide 40% of their bid, while the pilot partner will have to submit a business experience certificate that provides 100% of the bids. In the case of FIDIC tenders, each partner is obliged to provide the same amount of business experience certificate.

- While turnover and financial resources are calculated in proportion to the business partnership in PPL tenders, these rates are 50% for the pilot partner and 25% for private partners in FIDIC auctions.

5. RESULTS AND RECOMMENDATIONS

Many public institutions in Turkey, makes tender with respect to PPL specifications. Recently, many innovations have been made in PPL tenders. With the adjustments made, public tenders were started to be made in a healthier environment. For the following matters which are not taken into consideration in PPL tenders and which may lead to disruptions, making changes in tender legislation will be more appropriate.

In FIDIC tenders, the tenderers must visit the site where the construction work will take place before the tender. PPL tenders do not have such a requirement. Therefore, many companies participate in the tender without knowing the characteristics of the field where the work will be carried out and cause the job to be terminated because they cannot handle the job. For this reason, wasting of public resources and time losses occur. For the solution of this problem, field visits should be mandatory for all construction works in small or large scale with the amendments to be made in legislation. In this way, the winning bidder will be someone who sees the challenges of the field and gives a more consistent bid. Thus, premature termination of work and the loss of time and money of the state can be prevented.

In the FIDIC tenders, requesting an extremely low bid description for each item in the unit price bid sheet separately, makes the proposals more realistic. In our country, extremely low inquiries are made over the total price. In recent years, non-price elements method has been used by the administrations in some of the construction work tenders. Thus, with the scoring obtained by the ratio of each item in the bidder's bid to the total price, it is aimed that the more qualified bids of the tenderers can be able to be win, because bidders receive zero points for that item when they offer the bids below or below the normal range.

In FIDIC tenders, contractors and subcontractors, who will do some part of the work, are requested to be from qualified countries. In the case of PPL tenders, no declaration is usually required for the subcontractor. In the case of FIDIC auctions, the portion of the work that can be done by subcontractors is limited to 30% of the work, while almost all of them can be made by subcontractors in PPL tenders. By making regulation in public procurement legislation, the amount of the work done by the subcontractor should be limited and ensuring that the majority of the work is done by the contractor.

In the FIDIC tenders, tenderers are also required to have project design certificates as well as work experience certificate for construction works. In the case of PPL tenders, large-scale projects above the threshold value, or for works requiring specialization, project design certificates should also be requested for higher quality firms to participate in the tender.

In FIDIC tenders, the quality control certificate must be submitted by the tenderers. If this is applied also in PPL tenders, more qualified companies will participate in the tender.

In FIDIC tenders, tenderers are required to present the origin of the materials and equipment, and the brand and model of the construction machinery, used in the construction, under the proposal file. To ensure more qualified works in PPL tenders, these information also should be asked from tenderers.

In FIDIC tenders, firstly amicable solutions is used for the solution of the problems between administration and contractor. If there is no solution with amicable solutions, the dispute adjudication board steps in. In other words, the parties can resolve their problems without going to administrative courts or arbitration. With an arrangement to be made in the public procurement legislation, amicable solutions and dispute adjudication boards should be established before the administrative courts. Thus, the problems will be solved in a shorter time without entering the court process, the long court processes that can go to the termination of work in possible disputes will be eliminated.

PPL legislation is updated every year and needs to be improved. When the deficiencies mentioned in the study are eliminated with the amendments to be made in the legislation, the tenders will be made in a healthier and more efficient atmosphere.

REFERENCES

Akın, Ş. (2006). *FIDIC Kurallarına Göre Mühendisin Görev, Yetki ve Sorumlulukları,* Yüksek Lisans Tezi, Ankara Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, 99.

Akıncı, Z. (1996). *Milletlerarası Özel Hukukta İnşaat Sözleşmeleri*. İzmir: Dokuz Eylül Üniversitesi Hukuk Fakültesi, Döner Sermaye İşletmesi Yayınları, 223.

Akıncı, Z. (2007). *Milletlerarası Tahkim*. Ankara: Seçkin Yayıncılık, 29, 104-105.

Alpkökin, P. (2017). Türk İnşaat Sektöründe Uyuşmazlık Çözüm Kurulu Uygulamaları. *Karaelmas Fen ve Mühendislik Dergisi,* 7(2), 674-683.

Atagündüz, B. (2016, 22 Aralık). *Yapım İşleri İhale ve Sözleşme Mevzuatının FIDIC Şartnamelerine Göre Değerlendirilmesi.* Yapım İşlerinde Kamu İhale ve Sözleşmeleri Mevzuatı ve Uygulamaları Konferansında sunuldu, Ankara.

Atamer, M. Y., Süzel, E. B., & Geisinger, E. (2016). *Uluslararası İnşaat Sözleşmeleri ve Uyuşmazlık Çözüm Yolları.* İstanbul: On İki Levha Yayıncılık, 66-67.

Aydın, Y. (2010a) FIDIC Sözleşmeleri. *Dış Denetim Dergisi, 1(2),* 230-241.

Aydın, Y. (2010b). *FIDIC Esaslı Yatırım Projelerinde Uyuşmazlık Çözümü,* Yüksek Lisans Tezi, İstanbul Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul, 38, 50, 54-55.

Bunni, N. G. (2005). *The FIDIC Forms of Contract*. Oxford: Blackwell Publishing, 209, 222.

Dalmaz, Ç. (2012). *Uluslararası FIDIC Sözleşmelerinde Tahkim Hususunun İncelenmesi ve Bir Kavramsal Model Önerisi*, Yüksek Lisans Tezi, Sakarya Üniversitesi Fen Bilimleri Enstitüsü, Sakarya, 47.

Helvacı, İ. (2001). Türkiye'de FIDIC Uygulamaları. *Türkiye Mühendislik Haberleri Dergisi*, 46(411), 28-29.

İnternet: IPA, (2015). T.C. Çevre ve Şehircilik Bakanlığı AB Yatırımları Dairesi Başkanlığı http://www.ipa.gov.tr/IhaleDetay/Construction-of-Aksehir-Wastewater-Treatment-Plant-and-Wastewater-Infrastructure_16 adresinden 15 Ocak 2018'de alınmıştır.

Kamu İhale Kanunu (4734 Sayılı). Resmi Gazete 22.01.2002/24648, Ankara.

Kodakoğlu, M. (2007). *FIDIC Standart Kuralları'na Göre Hazırlanan Milletlerarası İnşaat Sözleşmelerinden Doğan Uyuşmazlıklarda Tahkim*, Yüksek Lisans Tezi, Başkent Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, 46.

Köksal, E. (2005). *4734 Sayılı KİK ve 4735 Sayılı KİSK Çerçevesinde, Yapım İşlerinde, Sözleşme Aşamasına Kadar Geçen Sürede Karşılaşılan Sorunlar, Belirsizlikler ve Uygulama Farklılıklarının İncelenmesi,* Yüksek Lisans Tezi, Osmangazi Üniversitesi Fen Bilimleri Enstitüsü, Ankara, 5.

Köksal, T. (2013). FIDIC İnşaat İşleri Şartnamelerine Göre Taraflar Arasındaki Uyuşmazlıkların Çözümü Mekanizmaları. *Türkiye Barolar Birliği Dergisi*, 0(106), 411-428.

Koldaş, B. (2008). *FIDIC Kapsamında Uyuşmazlıkların Çözümü,* Yüksek Lisans Tezi, Gazi Üniversitesi Sosyal Bilimler Enstitüsü, Ankara, 56-57, 59.

Ndekugri, I., Smith, N., Hughes. W., (2007, July). The engineer under FIDIC's conditions of contract for construction, *Construction Management and Economics,* 0(25), 791-799.

Uğur, L. O., Erdal, M. (2008). FIDIC İnşaat İşleri Genel Şartnamesinde sorumluluk ve risklerin işveren, mühendis ve yükleniciye dağılımının inşaat süresine etkisi. *Selçuk-Teknik Dergisi,* 7(1), 18-33.

Seppala, C.R., (1986 June). Contractor's claims under the FIDIC international civil engineering contract, *International Business Lawyer*, 14(1), 179-187.