

**SOUTH AFRICAN ROAD FEDERATION
SYMPOSIUM ON THE PREPARATION AND ADMINISTRATION
OF CIVIL ENGINEERING CONTRACTS
CHAPTER 11: CONTRACT ADMINISTRATION**

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CONTRACT ADMINISTRATION**

1. INTRODUCTION

These notes on contract administration, which focus mainly on the site administration, have been prepared to a large extent from a consulting engineer's perspective. The reasons for this are that they relate to how the documentation in the Contract is applied in order to achieve the objectives of the Contract. The way the Contractor manages his resources is an organizational issue which is his sole responsibility and the Engineer may only become involved if performance of the Works is affected. The objectives of sound contract administration are essentially the same whether you are a consultant or a contractor. Similarly the principles discussed in this and following chapters apply equally to contracts that may be administered by a resident site team and contracts that may be administered on an itinerant basis by office based staff.

Although a resident engineer and his staff will have been appointed in advance, it can be said that site contract administration commences officially on the day that the site is handed over to the contractor in accordance with the contract.

2. WHAT IS CONTRACT ADMINISTRATION?

Contract administration is a clearly defined management function. It requires the application of all good management principles i.e. sound planning, good site organization, tight controls and feedback in order to ensure that objective are achieved.

There are three main objectives which have to be satisfied in the successful execution of a contract and these form the background to contract administration both in the office and on site. These objectives are:

- a) To ensure that the work is done in accordance with the drawings and specifications of the Engineer so that the end project is able to perform the functions for which it is intended.
- b) To ensure that the Employer is getting what he has paid for at the price he expected to pay and at the time he required completion.

- c) To ensure that the Contractor receives the appropriate remuneration for the work he has done within the parameters of his offer and the conditions which he actually encountered during the course of the contract.

While these objectives may at first sight appear to be contradictory it should not be the case in practice. Under our system of Employer, Engineer, Contractor relationship the Engineer plays a vital part in ensuring that all three objectives are met. The Employer and the Contractor may well place a different emphasis on one or other of the objectives depending on their own self interests but ultimately compromise is necessary to achieve the correct balance.

There may be and often are instances where many interested parties other than the three major players are affected to a greater or lesser extent by a contract. Unless there is proper control there is a real risk of the various parties interfering with the administration of the contract to the detriment of the works as a whole.

Experience suggests that the administration of the contract be left in the hands of a relatively small group of people who are directly concerned with the work on a day to day basis. This means the Resident Engineer and his staff and the Contractor's Site Agent and his staff in the first instance. They are backed by the head offices of the respective organisations.

3. THE RESIDENT ENGINEER

It should be noted that the Conditions of Contract make no reference to the "*Resident Engineer*". This individual is referred to in GCC2010 as the "*Engineer's Representative*," in GCC2015 as the *Employer's Agent's Representative*, and in FIDIC 1 as an assistant. These notes will use the term "Resident Engineer" for ease of reference.

The following excerpts from the respective conditions of contract are relevant with regard to the Engineer's Representative and the Engineer's assistant:

Clause 3.3.1 in GCC 2015 states that "*The Employer's Agent shall be entitled, by written notice to the Contractor, to appoint a person as Employer's Agent's Representative and shall have the power by further written notice from time to time to terminate or change such appointment.*"

Clause 3.3.2.1 in GCC 2015 then proceeds to define the duties of the Resident Engineer as being "*...to observe the execution of the Works, examine and test materials and workmanship, and receive from the Contractor such information as he shall reasonably require.*" The subsequent sub-clauses contained in 3.3.2.2 to 3.3.6 in GCC 2010 provide further details regarding the extent of the authority of the Engineer's Representative.

FIDIC 1 has a similar approach, although the wording is slightly different:

Clause 3.2 in the Red Book states that *“The Engineer may from time to time assign duties and delegate authority to assistants, and may also revoke such assignment or delegation. These assistants may include a resident engineer, and/or independent inspectors appointed to inspect and/or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Engineer shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.5 [Determinations]. Assistants shall be suitably qualified persons, who are competent to carry out these duties and exercise this authority, and who are fluent in the language for communications defined in Sub-Clause 1.4 [Law and Language].”* The balance of the Clause then further defines the duties of the Engineer’s assistant.

It follows logically that for both GCC 2015 and FIDIC 1 the extent of delegation will be dependent on the experience of the individual appointed as Resident Engineer. In order to properly fulfill these duties the Resident Engineer requires a sound knowledge of the work, sufficient experience, judgement, tact, firmness, patience and several other attributes in order to carry out his duties satisfactorily. It is, therefore, essential that the Resident Engineer be carefully selected for the job. It is regrettable in many instances particularly in the private sector, that Resident Engineers have been put into jobs for which they are not sufficiently experienced. This is unfair to both the Employer and the Contractor let alone to the Resident Engineer himself. It is also a great disservice to the professional at large. The same can be said for Contractor’s Site Agents who do not have the experience or the skill to adequately plan and control the construction.

The Site Organisation of the Resident Engineer’s staff can vary from one man on smaller projects (ie. the Resident Engineer himself) to a major project involving a Resident Engineer with many engineers and technicians below him. It is quite clear that the Resident Engineer’s functions are managerial to a very high degree in major projects.

4. SITE ADMINISTRATIVE PROCEDURES

At the outset the Resident Engineer and the Contractor’s Construction Manager, (also known as the Site Agent) should agree on the methods by which the following procedures will be executed.

1. Site requests and instructions.
2. Drawings issue and further information.
3. Prime Cost and Provisional Sum expenditure.
4. Measurement of the Works and monthly certificates.
5. Variation orders and claims.

6. Notification of unforeseen conditions.
7. Insurance.
8. Day works authorization and returns.
9. Labour plant and accident returns.
10. Materials on site.
11. Certificates of completion.
12. Compliance with Employer's Procedures.

The timeous attention to all these issues as and when they arise by the two parties on site is an essential prerequisite for site administration.

5. CONTROLS

As already indicated the Resident Engineer is required to observe the works and test materials and workmanship. To achieve these, checks and controls have to be instituted at all stages of the work. Among the checks and controls will be:-

- Approval of Programme and Method Statements [It should be noted that in FIDIC I Conditions of Contract the Engineer does not 'approve' the Contractor's programme, but is required to indicate within 21 days after receiving it if there are any elements of the programme that do not comply with the Contract. If the Engineer does not respond in this manner within the 21 days then the Contractor is entitled to, and is required to, proceed in accordance with his programme.]
- Daily Record of Construction.
- Approval of Materials including Sources.
- State by Stage Checking Procedures and Records – setting-out, compaction, etc.
- Testing and Approval of Materials and Workmanship.
- Progress Monitoring and Delays.
- Quantity Records and Materials installed.
- Quality Assurance (if required).
- Updated Cost Estimates to Completion.
- Record Drawings.

The maintenance of records is a laborious procedure but essential for good site administration. It avoids arguments at a later stage. Agreed records are not questioned and in the case of disputes (and these are becoming more common) it also enables the kernel of the dispute to be isolated and addressed more easily. Remember that the three most important things on a site are: records...., records... andMORE RECORDS. Rather have too many records than too few.

Sound knowledge of the Scope of Work (Specifications) is necessary for proper control. At the same time the overzealous application of specifications in certain circumstances is also not warranted. It is here where the judgement of site staff becomes so important. While the vast majority of Contractors will not attempt to short cut the specifications there are those who still regard the Specification simply as a guide to how the work should be done (whereas it should start as the book of rules). Departures from the specification must also be very clearly recorded together with the reasons for doing so.

6. COMMUNICATION

When the various procedures are studied it is clear that they rely essentially on clear communication. Three important feature of on site communication should be noted.

1. All instructions and other transfer information etc. must be done in writing.
2. All correspondence to and from the Contractor must be routed through the Resident Engineer.
3. The levels of responsibility on the site determine the type of communication that assistant site personnel can issue to the Contractor. An arrangement whereby the Resident Engineer signs all outgoing correspondence is to be preferred.

For reasons of proper control all correspondence should be routed through the Resident Engineer. There is hardly any situation where correspondence can not go through the Resident Engineer. This avoids instances where Contractors have approached the Employer directly and obtained approval for courses of action and have then informed the Resident Engineer. Driving a wedge like this between the Engineer and the Employer can place the Resident staff in an impossible situation.

The mechanisms for communication are generally site requests, the site instruction book, daywork orders, drawing issues and checking procedures. On larger Contracts where secretarial staff is available on site the use of letters is the preferred procedure. The use of computers and appropriate software on Site is an essential element of contract administration in this day and age. This also has the effect of making communications and record keeping that much easier than it used to be in the days before computers were available. These facilities should therefore be put to optimum use.

The Resident Engineer and the Contractor will also need internal procedures, usually daily site staff meetings of short duration in which staff are advised of any developments which required attention.

Where the Employer works in close association with the Engineer there is also a need for the Resident Engineer to meet informally with the Employer to keep him informed of

developments and if necessary advise him timeously of any impending problems or possible additional costs which may arise.

Where necessary, approvals for additional expenditure must be motivated and follow Employer procedures to expedite approvals. The question of whether technical or non technical approaches are to be adopted in the motivations depends on the depth of technical resources at the disposal of the Employer. It is important to note that under GCC 2010 the Engineer cannot delegate powers to the Resident Engineer with regard to the following:

Clause 2.2 – Adverse physical conditions

Clause 5.12 – Extension of time for Practical Completion

Clause 5.14 – Completion

Clause 5.16 – Approval (Final Approval Certificate)

Clause 9.2 – Termination by Employer

Clause 10.1 – Contractor's claim

Clause 10.2 – Dissatisfaction claim

These extensive restrictions is not present in FIDIC I apart from the restriction to delegating authority to determine any matter in accordance with Sub-Clause 3.5 [*Determinations*].

7. MEASUREMENT

Measurement is an area where many problems arise in contract administration. It is essential that as much measurement as possible is agreed to each month and as disagreements arise these should be recorded as early as possible and resolved if at all possible at site level. In this regard it is good practice for the Resident Engineer to maintain a "Variance Schedule" recording for each month end measurement which items or measurements are in contention. These items should not be allowed to "fester" but should be revisited during subsequent month end measurement sessions with the intention of resolving them or having them dealt with as otherwise provided for in the Contract (i.e as a Contractor's claim).

The Engineer should agree the format of presentation of monthly statements with the Contractor at the outset of the job. Cut-off dates for measurement should be agreed and the Contractor should prepare the final statement. An agreement of quantities prior to presentation of the statement obviates much delay. Note that what the Contractor presents is a statement, which is an indication of what he believes he is entitled to in terms of measurement and payment for any particular month. That document is not the Monthly Certificate. In terms of the Contract the payment certificate is issued by the Engineer to the Employer.

The Employer's Agent (also known as the Engineer), (and his Resident Engineer) has a duty to expedite the preparation of the payment certificate, which, in terms of Clause 6.10.4 in GCC 2015, must be delivered to the Employer within 7 days of the receipt by the Engineer of the Contractor's statement. The Employer is then required to pay the amount due to the Contractor within 28 days of receipt by the Employer of the payment certificate signed by the Engineer.

The time frames in FIDIC 1 differ insofar as Clause 14.6 thereof requires the Engineer to issue to the Employer an Interim Payment Certificate within 28 days after receiving the Contractor's statement and supporting documents. The Employer is then obliged to pay to the Contractor the amount certified in each Interim Payment Certificate within 56 days after the Engineer received the Contractor's statement and supporting documents.

It is wrong and unfair on contractors that certificates are not forwarded to the Employer at the earliest possible date for payment. There have been instances where certificates have been delayed unnecessarily purely because the Engineer went on holiday. This is unprofessional and unethical in today's contracting climate.

It is thus apparent in the case of both GCC 2010 and GCC 2015 and FIDIC 1 that the recording of the date of the receipt by the Engineer of the Contractor's statement is an essential requirement, as any delay in payment will entitle the Contractor to interest on the amount in delay.

8. CLAIMS AND VARIATIONS

The Resident Engineer needs at all times to be alert to potential claims for additional payment from the Contractor. The GCC 2010 (and GCC 2015) has a detailed claims procedure set out in Clause 10 and the Contractor must be encouraged and compelled to follow the correct procedure. FIDIC I Sub-Clause 20.1 contains a similar claims procedure. In both of these Conditions of Contract the consequences of the Contractor failing to comply with the required notice period for advising the Engineer of intention to claim are serious – the Contractor essentially forfeits the right to submit a claim and the Employer is discharged of all liability in connection with the claim. The clauses dealing with the aspect of time-barring are extremely powerful and it is therefore essential that the Contractor and the Engineer observe and administer this element of the Contract correctly.

The most important aspect is the need for the earliest possible notification by the Contractor of impending claims. This is particularly important in respect of claims for unforeseen conditions or delays. Should the Contractor fail to comply he may prejudice himself in respect of

payment or even consideration of the claim. The Engineer must be given every opportunity to obtain such records as are necessary to ascertain the fair valuation of additional work.

The Resident Engineer plays an important part in the recording and evaluation of claims although the final responsibility for ruling on claims and variations rests with the Engineer.

9. COMPLETION

This matter is most important and is being dealt with separately in this Symposium. The Resident Engineer will work closely with the Engineer in determining the substantial completion of work precedent to the issue of the Certificate of Completion. This is one of the most important documents that is issued during the course of a contract and all uncertainties must be removed prior to its issue.

10. HUMAN RELATIONS

It is all very well to have a multitude of procedures and systems in contract administration but they only function to the benefit of the parties if they are correctly administered.

The administrative procedures typically applied are, at best, imperfect and at times tend to have scant regard for the Conditions that govern the Contract. It has been proven many times over that the smoothness with which a contract is administered is largely dependent on the willingness of the parties to the contract to make it work. It will serve well both parties to the Contract, the Contractor's Construction Manager, (Site Agent), and the Resident Engineer, to remember that generally the people involved in construction contracts are professionally qualified and, as such, should be respected by one another.

Much will also depend on the relationship between the Site Agent and the Resident Engineer. It is also important that the Employer's Agent (Engineer), and the Contractor's senior off-site personnel be alert to potential problems in the on-site relationships. Many problems can be overcome by fair attitudes, a realistic interpretation of the documents, and a thorough grasp of what is obtainable in the Contract circumstances. Appreciation by both sides of what each is trying to do and avoidance of acrimonious arguments are the key factors in successful contract administration.

11. SUMMARY

These notes outline in general terms what are considered to be the essential feature of contract administration. It is a vast subject and no two contracts are the same which makes contract administration both interesting and sometimes controversial. If in South Africa more credit and recognition is given to men and women who wish to make contract administration at site level a permanent career then we shall see a great improvement in the standards and

quality of contract administration and possibly a reduction in the level of claims which tend to arise. Clients should be made much more aware of the financial advantages of paying a little more for good Resident Engineers and Site staff.