SBS5224 Engineering Management

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Lecture Notes

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References

Claim Management and Settlement (CMS)

When using the HK Standard Form (HKIA, 1997), most claims submitted by the main contractor during progress of the contract will be in the form of *bona fide* claims, such as claims for direct loss and/or expense and claims for extension of time. Such claims if not submitted, will not be paid or granted, as the case may be. However, in practice, the main contractor may also have to submit claims for payments which should be made automatically by the employer, but which may be overlooked. Fluctuation falls into this category.

1. Fluctuations

Fluctuations may be defined as adjusting the contract sum for subsequent increases or decreases in wage rates and/or materials during the contract period; depending on the contract being used. The HK Standard Form allows for increases or decreases in wage rates only, by the provisions of Clause 36 - Fluctuation in wage rates.

Fluctuation in wage rates is based on the *Index of Wage Rates for the Building Industry* (referred to in Clause 36(1) as the *Wage Index*), an edition of which is published each month by the Census and Statistics Department of the Government of Hong Kong. The index for each of the eight selected trades listed under Clause 36(2) - 1. Labourer (male); 2. Concretor, Bricklayer, Drainlayer; 3. Steel Bender; 4. Blacksmith; 5. Carpenter & Joiner; 6. Plasterer; 7. Glazier; 8. Painter – is taken from the *Wage Index* and averaged to give an *Average Wage Index*.

The edition of the *Wage Index* which will form the basis for comparing the average wage index of each subsequent month, is the edition issued in the same month in which the employer receives the tender from the main contractor. This month is referred to as the *base month*.

At monthly intervals the architect is required to review the *Wage Index* and calculate, as a percentage, any increase or decrease in the *Average Wage Index*, when compared to the base month. If the percentage increase or decrease is less than 10%, no adjustment to the Contract Sum is made – Clause 36(4)(a). If the percentage increase or decrease is greater than 10%, the Contract Sum should be adjusted by the amount that the percentage exceeds 10% - Clause 36(4)(b).

The monetary amount by which the Contract Sum is adjusted is calculated in the following way:

- Ascertain from the appendix the Percentage Labour Content for the contract. This is expressed as a percentage of the Contract Sum; usually 25%.
- Calculate the percentage increase or decrease in wage rates which exceeds 10%.
- Determine the gross value of work executed during the particular month concerned after deducting the following items listed under Clause 36(5)(a)-(f):
 - (a) Nominated suppliers and main contractor's profit on the work valued
 - (b) Nominated sub-contractors' and main contractor's profit on the work valued
 - (c) Payments to third parties expended against provisional sums
 - (d) Unfixed materials
 - (e) Preliminaries

(f) Any variation valued using wage rates for labour, that were not based on wages contained in the Wage Index.

These three figures are multiplied together to produce a figure which is the amount by which the Contract Sum should be adjusted for increases or decreases in the cost of labour. Fluctuation payments must be made to the main contractor (if it is an increase) or allowed to the employer (if it is a decrease) in *Interim Certificates*.

It should be noted that the *Fluctuation in Wage Rates* clause in the HK Standard Form, will be deemed part of the contract only if specifically so stated in the Contract Bills. It is common practice in Hong Kong not to include the clause as part of the contract. However, employers will rarely save costs by not including the *Fluctuation in Wage Rates* clause, as contractors when tendering, will include an allowance in their tender figure for possible increases in the cost of labour. Such an allowance may well be much greater than the actual cost of eventual increases.

2. Delay

Delay in the completion of the works is one of the most common causes of dispute between the two parties, and of subsequent claims. Delays may be considered under three headings:

2.1 Delays Caused by the Main Contractor

Delays caused by the main contractor are usually due to bad management in executing the works, such as insufficient labour on site, late ordering of materials, insufficient or unsuitable plant.

It states in the HK Standard Form that the main contractor is to proceed regularly and diligently with the works. If the main contractor fails to complete the works by either the Date of Completion or any extended period of time that has been granted, then the main contractor shall pay or allow the employer liquidated and ascertained damages. If delays caused by the main contractor are of a serious nature, the employer may determine the employment of the main contractor under the contract.

If the delay is caused by a domestic sub-contractor, then this is treated as a delay caused by the main contractor. However, if the delay is caused by a nominated sub-contractor and the main contractor has done all he can to prevent the delay, this is treated as a delay caused by neither party to the contract. Therefore, the main contractor will be entitled under Clause 23(g) to be granted an extension of time and the employer cannot claim liquidated damages for the period of delay caused.

2.2 Delays Caused by the Employer

Delays caused by the employer may be summarised as follows:

Where delays of this nature occur, the architect has an obligation to issue an architect's instruction awarding an *extension of time*.

Furthermore, if delays from these causes involve the main contractor in direct loss and/or expense for which he would not otherwise be reimbursed, he will be entitled to recover such direct loss and/or expense by submitting a claim under Clause 24 – *Loss and Expense caused by Disturbance of Regular Progress of the Works*.

- Issue of architect's instructions which: requires the main contractor to complete substantial extra work; involves the main contractor executing substantial amounts of work out of sequence; or is concerned with a postponement of the works.
- Issue of drawings, instructions, details or levels which the architect has either failed to supply or is late in supplying, which the main contractor has specifically requested in writing.
- Delay on the part of artists, tradesmen or others engaged by the employer to carry out work which delays the main contractor.

• Delays caused by the architect requiring completed work to be opened up or materials tested, provided such work or materials are found to be in accordance with the contract.

2.3 Delays Caused by Neither Party to the Contract

There are occasions when delays arise due to circumstances over which neither party to the contract have any control. These may be summarised as: *force majeure* (something caused by nature totally unconnected with man, or war, or epidemics, or legislative interference); inclement weather; insurance matters (such as fire, lightning, explosion); strikes affecting the works; delay on the part of nominated sub-contractors or nominated suppliers; and unforeseeable shortages in materials and labour. For any of these matters the architect has an obligation to grant an extension of time to the main contractor.

3. Extension of Time

If failure to complete the works by the original date for completion is caused by a delay which is outside the control of either party or a delay which is the architect's or employer's fault then the main contractor may, under Clause 23 – Extension of Time, apply for an extension of time. The original date for completion would then be revised to take into account the delay, so relieving the main contractor from liability for liquidated damages based on the original date for completion.

If the delay is the fault of neither party, the main contractor is entitled to an extension of time, but is not entitled to receive any payment for direct loss and/or expense that he may have incurred due to the cause of the delay. However, if the delay is the fault of the employer or the architect, the main contractor is entitled to submit a claim, under Clause 24, for direct loss and expense in connection with the cause of the delay. (See **4. Claims for Direct Loss and/or Expense**)

It should be noted, that under no circumstances will the contractor be entitled to receive financial compensation from the employer, for the delay itself. The only entitlement for monetary compensation from the employer is for direct loss and/ or expense suffered by the main contractor as a direct consequence of the cause.

The causes of delay for which the main contractor is entitled to be granted an extension of time by the architect are listed under Clause 23 (a)-(k). The following is a summary of the causes of delay (with sub-clause letter references) categorised as either the fault of neither party, or the fault of the employer or the architect.

Causes of delay which are the fault of neither party:

- (a) *Force majeure* something completely beyond the control of either party such as earthquake, or war.
- (b) **Inclement weather** if the weather is exceptionally bad, this means 20 mm of rain in 24 hours or typhoon signal No.8.
- (c) **Insurance** loss or damage for which the main contractor is insured under Clause 20 [A] or [B] which is *Insurance of the Works against Fire, etc.*
- (d) Strikes, etc. protects the main contractor from unions and protects the employer from increased costs.
- (g) **Delay of nominated sub-contractors or nominated suppliers** the main contractor can claim for extension of time if they are late with their work.

- (j) **Unforeseeable material and labour shortages** this sub-clause will only be a part of the contract if specifically stated to be so in the Contract Bills.
- (k) Antiquities the main contractor can claim if a delay is caused due to the discovery of antiquities.

Causes of delay which are the fault of the employer or the architect:

- (e) Architect's instructions may cause an extension. of time if the main contractor incurs extra work.
- (f) Lateness of drawings the architect must give the main contractor the drawings within a reasonable time.
- (h) **Delay of artists or tradesmen** the main contractor can claim for extension of time if they are late with their work.
- (i) **Inspection and testing of work** protects the main contractor against unreasonable inspection and testing.

Note: Clauses (a), (b), (c), (d), (g), (j) (k), *do not* entitle the main contractor to submit a claim for direct loss and/or expense; causes (e), (f), (h), (i), *do*.

3.1 Procedure for Claiming an Extension of Time

The main contractor must take the initial action by giving notice of delay and stating the cause of delay. He must be prompt, or the architect may justifiably refuse to consider the extension where notice is given long after the delay in. question was apparent; however, there is no stipulated time period stated in the contract. The main contractor may estimate the length of delay although the architect will make the final decision.

When the architect has received notice of delay from the main contractor, he must decide whether the delay is caused by one of the matters for which the main contractor is entitled to an extension of time under Clause 23 - Extension of Time, and whether the delay, if valid, is going to result in late completion.

The architect is under an obligation to give an extension of time as soon as he reasonably can, so that the main contractor is not left in doubt as to the required completion date. Also, if the architect fails to make a decision concerning an extension of time before the contract completion date, the employer may lose his right to liquidated damages. However, in some cases (such as strikes, inclement weather, *force majeure*) the architect may not be able to estimate the extension of time until after the original date for completion and so Clause 23 recognises this with the phrase: ...so soon as he is able to estimate the length of delay.

3.2 Estimating the Length of Delay

Fair and reasonable is the measure of the extension of time to be granted; meaning that it should be fair and reasonable in relation to the cause. In order to assist in his assessment of a claim for an extension of time, the architect should check the progress of the works compared with existing programmes, and seek the opinion of the clerk of works. Although, in most cases, it is very difficult to assess an extension of time, the architect should nevertheless endeavour to see that neither party suffers unnecessary loss as a result of his assessment.

The main contractor is obliged to co-operate with the architect to reduce the effects of any delay which is not his fault, and for which he is claiming an extension of time. It is the main contractor's

responsibility to co-ordinate his own work and that of sub-contractors, which will involve holding regular meetings to review progress, and making changes to the master programme, as necessary, to prevent likely delays.

However, the main contractor is not obliged under the contract, to work overtime or bring in extra plant or take other expensive steps to regain lost time. If the architect requests the main contractor to take special measures to catch up the lost time, and the main contractor agrees, then the employer is required to pay for the cost of such measures.

Where the architect decides that-no extension of time is necessary, and the main contractor is dissatisfied with the decision, or where the main contractor is dissatisfied with the period of time granted, the parties may refer such dispute to the decision of an arbitrator.

As previously stated, under no circumstances does an extension of time allow for additional payment to the main contractor as compensation for the extra time involved. However, the cause of the delay may result in a separate claim under Clause 24 – Loss and Expense Caused by Disturbance of Regular Progress of the Works.

Causes of delay for which the main contractor may claim direct loss and/or expense are listed under Clause 24(1) (a)-(e); these are:

- (a) The main contractor not having received in time> instructions, drawings, details or levels.
- (b) Opening up for inspection of work.
- (c) Discrepancy in or divergence between the Contract Drawings and/or Contract Bills.
- (d) Delay on the part of artists, tradesmen or others engaged by the employer.
- (e) Architect's instructions issued in regard to postponement of any work.

4. Claims for Direct Loss and/or Expense

Loss may be defined as where the main contractor will not recover what he could have expected to as a direct result of disruption (disturbance of regular progress), variation, or the discovery of antiquities. *Expense* may be defined as where the main contractor has had to increase his expected expenditure on an item of work to produce the same result, also as a direct result of disruption, variation, or the discovery of antiquities.

The main contractor may, under the HK Standard Form, make a separate claim for direct loss and/or expense where the cause is either one of disruption, set out in Clause 24(1) – Loss and Expense Caused by Disturbance of Regular Progress of the Works; or variation, set out in Clause 11(6) – Variations, Provisional and Prime Cost Sums, or the discovery of antiquities, set out in Clause 34(3) – Antiquities.

It should be noted that the term *direct loss and/or expense*, is used in the text of each of the clauses under which the main contractor is entitled to submit such claims. The word direct is used in order to make it clear that such claims are directly related to the cause, and are not incidental losses or expenses.

4.1 Submission and Payment of Direct Loss and/or Expense

• The main contractor must submit a written application within a *reasonable* time of the loss and/or expense becoming apparent. As there is no definition of a reasonable time, it will be for a

court or arbitrator to decide in the event of a dispute.

- The responsibility for producing evidence to support the claim is that of the main contractor's staff who should keep records and reports such as weekly and variation reports, and dayworks records. From this information a claim may be built up by the main contractor's quantity surveyor.
- The claim will be assessed by the quantity surveyor who will negotiate with the main contractor's quantity surveyor until an amount acceptable to both is arrived at. Before approving the claim the architect must be of the opinion that the direct loss and/or expense is due to one of the following: disruption causes listed under Clause 24(1)(a)-(e); variation covered by Clause 11(6); or the discovery of antiquities Clause 34(2).
- Once approved by the architect the claim should be-included in the next *Interim Certificate* and not await final settlement. All payments for loss and/or expense claims are subject to retention.

4.2 Evaluation of Direct Loss and/or Expense

The process of arriving at a monetary figure which will accurately reflect the true direct loss and/or expense suffered by the main contractor is difficult, as there are so many different factors involved. In order to facilitate the process of evaluation, claims may be considered under the following headings:

- *Materials*. The common elements of a claim for the reimbursement of the extra cost of materials are:
 - Surplus materials due, for example, to a variation order requiring a smaller quantity of a particular material.
 - The extra cost of purchasing materials in small quantities due, for example, to the issue of a variation order.
 - Materials having to be replaced due to deterioration during the prolongation of the contract. This can only be considered if the cause of the delay is the fault of the employer or the architect.
- *Labour disruption*. In practice the ascertainment of claims is often left until the end of a contract. Probably no area of a claim is more difficult to assess alter a long delay, than the loss of output due to disruption of the regular progress of the works. There are four approaches to assessing the disruption of labour:
 - An evaluation of the records of labour output specifically kept for this purpose.
 - A review of labour activity on site at the time.
 - A review of the implications of any extensions of time that may have been granted.
 - The application of a general productivity formula.
- *Attraction money and bonus payments*. When preparing the tender, the main contractor will make allowances for labour market conditions. Once the contract is awarded and work starts on site, a much more detailed appraisal of costs is made. These detailed costs more accurately reflect the main contractor's direct losses and/or expenses that will almost certainly be claimed.
- **Preliminaries and supervision**. The preliminaries section to the bills of quantities can be described as the project overheads to the main contractor and will only be for the contract period. Therefore, if a claim for direct loss and/or expense in connection with an extension of time is payable under Clause 24 Loss and Expense Caused by Disturbance of Regular Progress of the Works, then such recurring costs, as the main contractor may have to pay on a time basis, should be reimbursed.

• **Inflation**. Neither Clause 11(6) – which allows claims for direct loss and/or expense due to variation, nor Clause 24(1) – which allows claims for direct loss and/or expense due to disturbance of regular progress of the works, gives the main contractor the right to challenge the adequacy of a fluctuations clause; this is a risk which the main contractor accepts once he has signed the contract. It is only the increase in the burden of that risk, due to an extended contract period, that is relevant in relation to a claim for direct loss and/or expense.

Care must be taken to ensure that any reimbursement under the fluctuation clause is not duplicated when evaluating direct loss and/or expense.

- *Head office overheads and profit*. Head office overheads and profit are usually allowed for in a tender by means of a percentage on the value (or part value) of the contract. The payment of additional money in respect of head office overheads and profit is the subject of much debate.
- *Finance charges.* The cost of financing an individual project is usually included in the head office overheads, therefore, any adjustment of the overheads will automatically include finance charges. Occasionally, however, finance charges are treated separately.

5. Cross Claims

The plaintiff will make the original claim and a cross claim then may be made by the defendant. A cross claim may take the form of a set-off or the form of a counter claim.

Set-off is where a defendant, whether it be the employer, main contractor or a sub-contractor, makes a cross claim against the plaintiff and asks that it be used to diminish the plaintiff's claim.

Contra charge is a term used exclusively where the employer is pleading a *set-off*, which will have the effect of reducing the value of the plaintiff's claim by the amount of the employer's contra charge.

Counter claim simply means that the defendant is making his own independent claim against the plaintiff.

• **Distinction between set-off and counter claim**. A set-off is a defence and as such can be used only as a shield, not as a sword. Consequently a defendant must counterclaim if he hopes to obtain more on his cross claim than the plaintiff will obtain on his claim, or if the defendant desires to be in a position to continue his cross claim in the same proceedings, even though the plaintiff's claim is discontinued.

A cross claim by a defendant can always be presented as a counter claim but not necessarily a set-off. The court will decide on the acceptability of the form of presentation. Whether a cross claim can be relied on as an equitable set-off seems to depend on whether it is sufficiently closely connected with the claim, although the parties by agreement may limit their right to set-off. Subject to such an agreement requests for claims to be set-off may be treated as follows:

- *Claim under another contract*. An employer cannot set-off a claim arising under another contract with the same contractor, unless he has been given express power by the contractor to do so, or there are special circumstances connecting the two claims.
- *Liquidated damages.* If they do not exceed the amount of the claim and arise under the same contract, they may be set-off against the claim.
- **Defects**. Where there is a claim on a lump sum contract and the defendant alleges that there are defects, he may either set-off his loss to diminish the claim or he may counter-claim for damages.

• *Costs*. A set-off may reduce a plaintiff's claim to a sum which does not normally carry costs; payable by the defendant if the plaintiff succeeds. This is the main reason for a defendant asking that a cross claim be set-off. In the case of a successful claim and counter claim, both plaintiff and defendant would be ordered to pay costs.

[Review Questions]

- (1) Briefly explain how the Contract Sum is adjusted to cater for fluctuations.
- (2) Under what type of delays will be main contractor be granted an extension of time?
- (3) Briefly explain how direct loss and/or expense are evaluated. What are the important factors to consider?

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