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DO YOU HAVE THE MEASURE OF DISRUPTION?

Disruption does not have definitive case law precedence or systems of calculation to be able to prove, assess and quantify any loss in a standard format. Whilst it has been addressed in certain books and reported case law every project is different.

I have set out below some of my experiences of dealing with disruption.

What are you trying to prove?

Disruption is usually about money not recovered as part of the direct cost of a variation(s). It is the loss that has been caused by the indirect effect of a variation(s) that would not have been incurred but for the variation or through the cumulative effect of several variations. It is usually very difficult for the contractor to allocate this loss to a variation(s) because the linkage is not always obvious; for example multiple changes to reinforcement bar bending schedules whilst the reinforcement is being fixed cannot always be adequately compensated by re-measuring the as-built quantities. There is no compensation for the contractor's loss from having to site cut and bend varied bars or for his engineers' time receiving and copying the information and explaining it to his foreman and then the foreman explaining it to his steel fixer gang. Also the steel may be for a large pour which cannot be delayed and the steel fixer subcontractor may relocate some fixers from another part of the site to ensure the steel is ready for the pour. What about the increased time that the tower crane is servicing the steel fixers shouldn't it have been servicing some other part of the project? On very large contracts it is commercially and logistically not viable for the contractor to keep separate records of all one off movements of steel fixers, daily measures of tonnages fixed and the effect of the restricted use of a tower crane. So the person trying to capture this loss and demonstrate it is linked to the combined effect of several variations to the reinforcement is in a difficult position. So how do you do it?

It is always well to remember that any other professional looking at the same problem will understand the predicament of proving this loss. That is why it is very easy to criticise a disruption submission because there are plenty of arguments to put forward that cause and effect has not been proved. You must prepare your disruption submission for an adjudicator, arbitrator or judge to review and be prepared to stand your ground with the negative comments from a party that will endeavour to criticise your submission as they have no intention of certifying any payment for disruption. Any submission must be persuasive to the extent that a reasonable person would accept firstly that disruption has occurred and secondly that a reasoned explanation of the calculation of the loss has been given.

How do you analyse disruption?

Below I have detailed two methods which I have used to identify and / or analyse disruption.

Weekly working analysis:-

On live contracts contractors would be well advised to consider some techniques for establishing that disruption is occurring. One of the most effective ones I have used is the weekly working analysis.

What I do is to analyse a contract for a week. Initially at the commencement of a week I attend the weekly planning meeting with the engineers and record the engineers planned intent. Then each day of that week I would meet with the engineers and discuss what happened during that day. It would come to light they had received some instructions from the client some urgent and some that weren't. The urgent ones required resources to be redirected. At the end of the week I would again attend the weekly planning meeting where last week's progress was compared against last week's planned programme and reasons noted why progress had not been achieved as planned. This is micro managing the effect of change on progress but is very persuasive to the fact that disruption has occurred. If you analyse 1 week in every 4 during a prolonged period of disruption then a recurring pattern of disruption can be seen. A detailed report for the analysed week is produced comparing original work planned against actual planned work completed, actual varied planned work completed and actual new work completed. This can be analysed by volume of work that gives a further comparison of earned labour allowance to actual labour cost to show the loss during that week.

The 'measured mile' analysis

On contracts that have been completed the most effective form of disruption analysis I have used, which is also the most acceptable in the courts or arbitration, is the 'measured mile' analysis. Here the analysis of delay should compare outputs from an undisrupted period against a disrupted period. Using this analysis there is no need to rely on tender outputs as your benchmark against which you will demonstrate your loss will be against the outputs obtained in the undisrupted periods. This analysis does require good records to be kept.

Problems?

What happens when there are insufficient records or you cannot find periods of undisrupted work to use as a comparable? This is when the analysis becomes personal to the circumstances. It is worth noting at this time that if there are little or no records the claim becomes "global" and while there is some authority on presenting such claims it is my belief that the more detailed the analysis of causation of disruption the greater the chance of success.

The initial check to be carried out is that the contractor has recovered the maximum amount of his additional cost through the variation(s) i.e. through his direct cost submission. This direct cost submission should identify as much of the 'indirect costs' as possible thus reducing the amount to be recovered as disruption.

A high level analysis has to be undertaken to understand where the loss has been incurred; for example is it in labour or site preliminaries. This is very important because if you do not know where you have incurred the loss then you will never be able to demonstrate how you incurred the loss.

Once you have factually demonstrated to yourself where you have incurred the loss then and only then can you start to analyse cause and effect for disruption. The loss will be factual the cause has to be proven by linking the changes instructed by the client or his representative / agent to the loss.



Expert Witness View

When I undertake the role of quantum expert I always advocate working closely with the expert for programme and time issues as the evidence to link the cause of the loss to the client instructed changes usually lies within the time analysis. When you do carry out a detailed analysis of the loss and co-ordinate this analysis with your programmer you will usually find some measure to demonstrate the extent of disruption and the linkage to the client instructed changes. The question is always is it sufficient to persuade an adjudicator, arbitrator or judge. Unfortunately you will not know this until you read the decision, award or judgment!

Disruption is a massive topic area and this article only touches on some of my experiences in dealing with this thorny issue. Disruption is personal and unique to each project and so is the strategy for dealing with it.