ENCON Group Inc.
Telephone 613-786-2000
Facsimile 613-786-2001
Toll Free 800-267-6684
www.encon.ca

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Managing Delay Claims: A Basic Guide for Architects and Engineers

by Darrell C. May, Monette May & Associates, and Richard B. Darke, Barnes Craig & Associates

Introduction

The following Bulletin was prepared for ENCON by Darrell May, Monette May & Associates, and Richard Darke, Barnes Craig & Associates, adjusting firms specializing in the resolution of construction-related claims. The article is intended to demystify some of the more esoteric issues surrounding delay claims brought by contractors on construction projects. It should not be construed as a template for resolving such claims on your own without outside assistance. We continue to urge you to report potential claims to ENCON early and to deal with construction issues such as change orders when they arise. Not only does this constitute the most effective risk management approach but will ultimately result in a more expeditious and cost-effective dispute resolution method.

Traditionally, the most difficult and complex construction liability claims are those based on allegations of interference causing delay and/or productivity loss. Claims of this sort are primarily advanced by a contractor against an owner or an owner against a contractor, with the design consultant(s) often implicated somewhere in the middle by one (or both) of the other involved parties.

Although the focus of this paper is to provide consultants with a step-by-step approach for identifying the strengths and exploiting the weaknesses of a contractor- or owner-initiated delay claim, it will also touch on suggestions intended to assist the consultant manage the risk of delay. As a first step, it is essential that the consultant understand what a delay claim is, how it differs from other impact claims, and the kinds of delay that are (or are not) compensable.

What is a delay claim?

Essentially, it is a claim to recover time related costs from the party(s) deemed responsible for an interference that causes a project schedule to be pushed beyond its planned completion date. For example, consider the situation where a contractor bids on a project on the basis of having rented construction equipment on site for six months. If, as a consequence of a third party interference, a hold is placed on the work such that the planned duration is extended to ten months, the contractor will claim entitlement for the unplanned cost of renting construction equipment for the four month difference.

A serial delay arises where one delay causes another.

A concurrent delay is where two or more activities are delayed at the same time.

Productivity claims are to be distinguished from delay claims in that they seek to claim for losses in the productivity of labour or equipment, rather than for the time costs created by a delay. Similarly, acceleration claims, which are another type of "impact claim", seek to claim the costs of recovering time lost because of a delay or loss of productivity. Such claims represent the costs of mitigating or attempting to mitigate the effect of delays or productivity loss.

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Which delays are compensable?

A contractor is entitled to compensation and an extension of contract time if the event causing the delay is not the contractor's fault. The exception to the rule is a situation where the delay is nobody's fault such as a strike, abnormal weather, or earthquake. In these circumstances, known as force majeur events, the contractor is entitled to an extension of the contract time, but without compensation. The delay is said to be "excusable" but not compensable.

Consultants should be aware that their work is often cited as a delay causing event, "excusable and compensable" to the contractor. Examples of these events are incomplete/inaccurate/untimely drawings which result in numerous/untimely design-related Change Orders/ Site Instructions/Requests for Clarification/information. If the contractor is able to demonstrate such failings, it is inevitable that the consultant will be looked to for payment of any relatable 'compensation' paid to the contractor for the delay.

Where an event within the contractor's control delays planned completion, the contractor is not entitled to compensation or a schedule extension. In fact, in these 'non-excusable' (chargeable) situations, the contractor may be required to pay liquidated damages or, if none are deemed recoverable under the contract, the contractor will likely find itself on the receiving end of an owner initiated delay claim.

Of course, it is often the case that at any given time on a project there are a number of delay causing events occurring. Such delay events are said to be concurrent and it is essential that any combination of concurrent delays on separate activity paths be evaluated on a one off basis to determine which, if any, of the delays are "excusable" and/or "compensable." More often than not, concurrent delays will be comprised of more than one type of delay. That is, some combination of compensable, non-compensable and chargeable delay. The challenge is to determine which of the delayed activities had the most significant impact or occurred first in time. This can only be done by performing a network schedule analysis.

In general, with respect to delay claims, courts recognize a contractor's entitlement as being the length of time that is the difference (expressed in dollars) between the actual duration and what the contract duration would have been but for 'excusable' (compensable) delay(s).

A Step By Step Approach to Delay Claim Analysis

The "Achilles heel" in any delay claim is its assumptions. Even where the employed methodology is sound, the assumptions can usually be challenged. If you can disprove key assumptions, and/or replace them with more plausible assumptions of your own, you can usually knock the legs out from under the claim.

Step 1: Review the claim document

- Summarize the claim logic, identifying the "cause and effect" links alleged.
- Identify key issues.
- Isolate assumptions.
- Identify strengths and weaknesses in methodology.

Things to look for:

- Does the claim document identify the real issues? Does it reflect what actually occurred at site in a fair and objective way?
- Have other problems been ignored?
- Is the claim logic reasonable? Does it account for the claimant's own inefficiencies and/or delays? The use of a Total Cost Method for calculating entitlement should be viewed as a 'red flag'. It demonstrates that the Contractor (for example) has taken the position that it would have performed exactly as planned if not for a third patty interference.
- Are activity interrelationships clearly demonstrated?
- Is the claim logic supported by a dynamic network schedule (i.e. CPM)?
- Has supporting cost documentation been provided?

Step 2: Review the contract

The contract, which includes the formal agreement, general conditions, drawings, specifications, addenda, changes and instructions to bidders, is the standard by which the merits of any construction claim will be determined. The most important contractual provision to review in response to a delay claim is the notice requirement.

A contractor is normally required to notify the owner and/or the consultant, in writing, within a specified period of time, of its intention to claim for delay.

If notice requirements are not met, a court may reject a Contractor's claim. In *Corpex Inc. v. Her Majesty the Queen in Right of Canada* (1977), the Court, in addressing an absence of notice, stated:

> In order to preserve his rights, he had to notify the owner. With such notice his claim might have been more sure of success once the failure of the consulting engineers to provide him with all the information they had on the nature of the soil had been established. Without such notice, however, his claim, in my opinion cannot succeed, whether such a claim is based on a reasonable assumption on the basis of the information he was given or on the fault of the consulting engineers.

The contract should also be reviewed with the intention of determining what the parties contractual obligations were in relation to services provided, and an assessment made as to whether those obligations were fulfilled.

In addition, the contract will usually delineate a mechanism for handling the claim and for establishing entitlement (i.e., unit rates for equipment and/or all inclusive labour rates).

Things to look for:

- Were notice requirements met?
- Did the consultant conform with all required turnaround time frames for reviewing shop drawings, responding to requests for information/clarification and for processing contemplated change orders?
- Did the contractor comply with milestone dates for submitting shop drawings, for procuring materials and equipment, and for quoting proposed changes to the work?
- Are specific adverse site conditions (which form the basis of a claim) adequately described in the contract? For example, where several contractor's are compelled to simultaneously complete different contracts located in the same general vicinity, does the contract advise that congestion is to be expected?
- Did the contractor comply with mitigation requirements?

Step 3: Key document review

As with most construction disputes, the best tool for analysis and resolution will be the job records. This is the best database for obtaining information about how a job progressed. Clearly, a consultant who has conscientiously maintained a job record or project file will be in the best position to properly assess any delay claim submitted.

Meeting minutes are a good starting point for researching a claim submission. They provide an overview of the project that can be used to establish a context for claim issues. They typically record (in summary form) the position/opinions of site personnel regarding claim issues, the action to be taken to resolve an interference, the parties responsible for taking the required action, and a general time frame of the event(s) that can be used as a guideline for a more probative investigation. They should also be reviewed for other issues or event related circumstances that contradict the contractor's (or owner's) version of events.

A delay claim is almost always predicated on a contractor's contention that its plan for executing the work was reasonable and could have been achieved but for the alleged interferences of others. Accordingly, since the "reasonableness" of the contractor's plan is one of the cornerstones of a successful delay claim, it is imperative that the contractor's original and updated As-Planned Schedules and Bid (including the bid workup) be reviewed and assessed with an eye to determining whether the plan was realistic. How many man-hours did the Contractor estimate for completing each activity? What level of productivity per man-hour did the Contractor have to achieve for a given trade in order for the activity to be completed within the estimated duration? In what other ways is the contractor's bid deficient? Have adjustments been made to the as-planned schedule to account for bid deficiencies?

Once adjusted, the contractor's plan must be compared with how the contractor actually performed at site. Accordingly, using daily activity reports, site diaries, site review and deficiency reports, correspondence and other event specific documentation, actual activity commencement, completion and 'impacting' event dates should be plotted on a network based As-Built Schedule. The contractor's actual man-hour expenditures for each activity and trade should also be plotted.

Step 4: Determine what actually happened: schedule analysis and fact interpolation

By overlaying, and thereby comparing, the as-planned with the as-built schedule, the contractor's performance, both with respect to impacted and unimpacted work, can be measured.

This step determines whether or not alleged interferences actually contributed to the overall delay and, if so, to what extent. As previously mentioned, for a delay claim to be successful, it must establish a link between the 'cause' of a delay (and/or productivity loss) and the "effect" that delay has on the projects planned duration.

The purpose of plotting man-hour expenditures is to determine whether planned manpower loadings were achieved and whether productivity levels were accomplished in unimpacted areas.

Things to look for:

- Does the contractor's as-planned schedule comply with contract requirements in terms of its format, and does it incorporate milestone dates appropriately?
- Does the as-planned schedule accurately reflect the relationship between activities with respect to dependency, concurrence, access restrictions, and work flow? In reviewing dependency, it is important to consider other potentially impacting conditions such as equipment and labour availability, seasonal weather, staging areas, material procurement, etc.
- Did the contractor achieve and sustain planned manpower levels? If so, were planned productivity levels achieved in unimpacted areas? If the contractor's claim submission includes a cost differential analysis, ensure that its baseline (i.e. 'measured mile') is the measure of an activity that is exactly the same as the impacted activity.
- Do cessations in the contractor's execution of the work correspond with plotted impact dates?
- Was an impacting event material in terms of its affect on the critical path?
- Was there a critical path or was the project resource driven?
- Were there concurrent delays?
- Were the other concurrent delays contractor initiated? If so, are they more significant than the 'excusable' (compensable) delay? Which occurred first in time?

In summary, particular attention should be given to the type of schedule used, the validity of the as-planned schedule, the accuracy of the as-built record and the reliability of the method used to demonstrate impacts to the schedule.

Step 5: Assessing entitlement

Once the consultant is satisfied that the contractor's claim logic is reasonable with respect to having demonstrated "cause" and "effect" linkages, and that the claim has conformed with contractual requirements, claimed damages must be evaluated.

Entitlement for labour overruns is usually based on an all inclusive labour rate set out in the prime contract. To avoid 'double accounting', ensure that productive labour time on contract work expended during a delay period is deducted from total labour costs claimed.

The cost of idle labour is recoverable where the contractor can demonstrate that the release of key personnel, including skilled tradesmen, would result in future unavailability. Also recoverable are equipment and idle equipment costs and increases in material costs or wage rates for hours actually worked.

Differential Cost Method is the most common method of calculating productivity loss. The contractor is entitled to the difference between the rate of productivity achieved on unimpacted work versus impacted work. The result is typically cross-corroborated with an applicable statistical study that charts the effect of various factors such as inclement weather, stacking, overtime, etc. on productivity. Make sure that alleged unimpacted work is comparable to the impacted work with respect to complexity and/or method of execution.

Where there is a demonstrated "excusable" (compensable) delay period, the contractor is entitled to recover all field office overhead costs for the entire period. These include site personnel (i.e. administration, project managers), additional utility, maintenance, trailer, temporary storage, communication charges (i.e. fax, phones) and site security costs. A daily overhead rate is calculated by dividing the total of all fixed costs by the total number of days the costs were accrued. The daily rate is then multiplied by the total number of compensable delay days.

Indirect home office overhead costs are also recoverable. These include home office rent or lease payments, insurance, real estate taxes, office staff salaries, and office equipment rentals/leases. There are many formulas for calculating home office overhead entitlement. The most common is the Eichleay Formula. This formula seeks to calculate home office overhead on the basis of a relationship between these costs and the contractor's total billings.

Weaknesses in Eichleay:

- The contractor is not required to prove actual increased overhead costs for a specific delay period.
- The formula assumes that all overhead activities are dispersed to the contractor's jobs in proportion to that project's contribution to the contractor's total billings for all of its projects.
- It assumes that overhead costs accrue at a fixed rate and that overhead activities are provided to the project in equal amounts on a daily basis.
- The contractor is compensated for unabsorbed overhead whether or not the Contractor's overhead rate has increased for reasons other than delay (i.e. additional business, bad management, etc.).
- Overhead costs are apportioned equally to all of the contractor's projects. Accordingly, if a contractor only has one project, the formula will allow the contractor to recover all of its home office overhead.

Things to look for:

- If change orders are the alleged cause of delay and they were issued on a cost plus basis, the contractor will likely have been compensated for all unabsorbed home office overhead plus profit in the applicable all inclusive rate. Make sure the contractor does not claim overhead and profit twice.
- Make sure that bid amounts for claimed items (i.e. heat and hoarding) have been deducted from the total claimed amount.
- Where more than one party is alleged to have caused a delay and/or impact, the claim documents author will have apportioned a percentage of responsibility to each party. This apportionment is always a potential "weak link" because it is a subjective approximation stated in percentages.

Preventing Delay Claims: A Risk Management Perspective

The following suggestions have been culled from various technical publications* and are paraphrased here as potential tools for a consultant to either reduce the likelihood of a delay claim occurring, or to simplify the process of determining entitlement when a claim does occur.

Independent design review

Have an independent design team review the authoring teams plans and specifications before they are put out to tender. The purpose of the review is to scrutinize the bid documents from the contractor's perspective with a focus on determining whether there is sufficient information to construct the project. The more complete the tendered design documentation, the fewer the number of change orders and/or information/clarification requests will be generated.

Scheduling specification

Specify detailed scheduling requirements. A CPM or other network based schedule should be mandatory. The specification reference should dictate schedule update intervals, milestone dates, the level of schedule detail required, and the ownership of float etc.

Information/clarification estimates

Delay and/or productivity loss claims related to excessive requests for design information and/or clarification could be reduced or eliminated by including a statement in the bid documents that advises the contractor to expect to make a specified number of requests for information/clarification. The approximate number of requests would be determined from calculating the average number of information/clarification requests that occurred on a sampling of other similar type projects.

Bid price for delay time

Past projects of like kind are analyzed to determine the average number of "excusable" (compensable) delay days to be expected. A bid item is included in the bid documents requiring the contractors to fill in a daily delay cost which is then multiplied by the average number of delay days estimated. The total is added to the bid cost as an allowance. Bidders are instructed that the daily rate bid is the only amount the contractor

can recover if delayed. The competitive nature of the bidding process will ensure that the daily rates are low. When a claim is made, there would be no dispute over the amount the contractor is entitled to recover for each day of delay.

Time-lapse video photography
To avoid disagreements about what actually occurred on site with respect to the contractor's performance, the impact of changes, and/or the actual duration of activities, etc., an automatic time-lapse video system (with date stamp) is set up with cameras placed at various locations around the project. Disputes over factual matters would be avoided since a review of the videotape would establish the exact duration of a particular activity, how many hours were actually expended completing a given change order, or how long a crane stood idle, etc.

Partnering
Partnering is a project management technique. Although claims are not eliminated, a "teamwork" approach will reduce the traditional adversarial dynamic that exists between a contractor and the consultants/owner. Simply stated, problems are resolved more efficiently when the parties co-operate in finding solutions to problems, as opposed to positioning themselves to protect (or further) their own interest when problems occur.

* The primary source for these suggestions was a technical article entitled "Practical Dispute Management" by James G. Zack Jr. (Cost Engineering Vol. 37/No. 12 Dec. 95).

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