

## AT OUR TWENTY-FIRST ANNIVERSARY



by Steve Revay

On January 2 of this year we started our twenty-second year of offering the same basic services to our clients. It is often said that by passing the twenty-first birthday one enters adulthood. Whether this applies to us will have to be decided by our past and current clients. It is a fact, however, that we have grown both in size and knowledge since January 1970 and today we are, without doubt, more skilled, experienced and better prepared to serve our clients.

Today the company has ten times as many employees as it did then, distributed in five offices as opposed to being limited to one. Many of us are active in

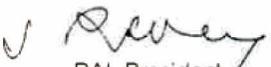
various professional and trade associations and some of us served in the highest office of our chosen Society or Institute, for example, two of our consultants served as both President and Chair of the Project Management Institute. A number of us appeared, as guest lecturers, at various universities from coast to coast, and in an average year our employees lecture at twelve to fifteen seminars. Six of us are members of the Arbitrators' Institute of Canada and acted as arbitrators in a number of disputes. We have, for instance, participated either as an arbitrator or as the umpire in a number of ADR's described further on in this report.

Since our incorporation, we have either prepared or evaluated over sixteen hundred claims ranging from a low of \$5,000 to a high of \$137 million in face value. Seven of us have been admitted as

experts, some in a number of jurisdictions. Although dispute resolution represents our principal line of business, we are often involved in other types of services, such as:

We have prepared budget estimates well over a billion dollars in total value. We had scheduling assignments both from contractors and owners on a number of projects of all types. We have performed cost control and progress monitoring on behalf of owners and a number of Surety Companies on several projects. We had PMO assignments, besides all of the conventional management consulting mandates.

Yes! We have grown but have never failed to recognize that our existence depends on you, our clients. Thank you for your support.

  
RAL President

## QUANTIFYING CONSTRUCTION CLAIMS!

### INTRODUCTION

In the most recent release (December 1990) of the book, *Damages for Breach of Contract*, by Harvin Pitch and Ronald Snyder, the authors have extended significantly Chapter 15 by introducing a section: *The Role of the Litigation Accountant*.

This section, written by an accountant, describes the litigation accountants, once merely foot soldiers, as generals reporting to the field marshal, the lawyer. The author states that litigation accounting is both a science and an art providing the following services:

- initial assessment of a case;
- assisting with the examination on discovery;
- developing case strategy with counsel and other experts involved;
- assisting in settlement negotiations;
- assisting in evaluating offers to settle and judgement.

These are, without doubt, some of the services most lawyers may need in com-

plex cases. In a paper presented to the Construction Law Seminar of the Canadian Bar Association in Toronto on April 8, 1988 (reproduced in 31 C.L.R. 180), I described these services as follows:

- consultation;
- assistance in the preparation of the case;
- assistance at the trial, and
- giving evidence.

To this extent, I agree with the author of the above-mentioned section. I would like to go a step further and state that not all accountants can offer these services; in construction litigation few can, unless they team up with construction experts (e.g. experienced claims consultants).

These are not fighting words. Accountants and claims consultants do not and cannot compete with one another. A damages calculation that can be carried out pursuant to the generally accepted accounting principles belongs to the accounting profession, and claims consultants ought to leave it alone. On the other hand, calculations for delays,

acceleration or impact costs which involve estimating, engineering evaluations or statistical analysis, and cannot be performed using accepted accounting principles, are outside the expertise of accountants. This is not to say that accountants cannot develop that type of expertise — in fact, some did. But the qualifications of those accountants who advertise those skills are to be judged in the same way as those of the claims consultants, that is, hands-on construction experience either as an estimator, scheduling consultant or construction manager, or actual preparation and/or evaluation of a number of complex delay and impact cost claims. The same prerequisites apply to construction engineers and "instant" claims consultants.

ROUTE TO/OR FILE: _____	

## **ACCOUNTANTS v. CLAIMS CONSULTANTS**

The significance of the difference between an accountant and a claims consultant is not always understood particularly by those without prior involvement in large construction claims. Delay analysis and lost productivity calculations are seldom objective and almost always involve subjective evaluations. This is where experience and thorough understanding of the construction process become essential.

### **DELAY ANALYSIS**

I cannot deal, within the limits of this article, with all the intricacies of delay and impact cost calculations. I would, nevertheless, like to highlight some of the choices the analyst has when trying to select the most appropriate means of quantifying delay damages.

I chose delay calculation, as opposed to impact cost calculation, to illustrate the above contentions, because:

1. impact cost calculation is too complex an issue to deal with in a summary manner; and,
2. delay, one way or another, is present in nearly all construction claims; and,
3. many people (including lawyers and engineers) believe that they know how to quantify delays without realizing what a difficult task it is.

In simplistic terms: a delay is said to have occurred on a construction job when the duration extends beyond the achievable duration. This so-called achievable duration can be, but is not necessarily, defined by the contractually agreed-upon duration. The contractor may have a valid delay claim even if the job was finished ahead of the specified date of completion; on the other hand, a job may have extended well beyond the agreed-upon date of completion without anything or anybody having delayed it, such as when the original schedule was unattainable. The determination of the achievable duration is, therefore, not automatic and at times may require total rescheduling.

### **CATEGORIES OF DELAYS**

In a classical sense one ought to distinguish three categories of delays:

- a) chargeable: neither excusable nor

compensable;

- b) excusable but not compensable; and

- c) compensable.

All contractor-caused delays, as well as those which are deemed to be the risks of the contractor (pursuant to either the express or implied terms of the contract) fall in category one.

In a situation where the achievable duration is longer than the contractually specified one, in Canada, the delay would probably fall in category one, but not so in the United States, where the contractor could claim compensation pursuant to the theory of defective specification. In the future this trend may be followed in Canada with respect to prime contractors on construction management type of projects.

To complicate matters further, delays due to shortage of labour or inclement weather, which are usually considered the contractor's risks, may be compensable if they occurred beyond the achievable date of completion on jobs where the initial delay is compensable. In similar circumstance a strike, which is normally considered an excusable, i.e. category 2 delay, would also be compensable.

Other causes falling in the second category are "act of god", and delays beyond the control of either party, e.g. when the manufacturer supplying long lead items declares bankruptcy, etc.

Compensable delays are normally those which result from either an act or neglect of the owner or his agents. Delays resulting from change or extra work orders usually fall into this category. Whether a cause gives rise to compensable delay depends on the terms of the contract, but in general, if an occurrence, which otherwise entitles the contractor to additional compensation (e.g. changed soil condition), causes the delay, then the cost of that delay is also compensable. Subject of course to the contractor's compliance with the prescribed notice provisions. In the case of change orders the issue of "accord and satisfaction" may also affect the contractor's entitlement to the compensation for the related delay damages. If a contractor signs off a change order without dealing with the costs inherent in the resulting delays (if any), he will probably lose his right to such an additional compensation as

otherwise would have been available.

The thorough understanding of the facts (i.e. the detailed history of the job) and their interaction as well as the above-described principles are essential ingredients of any delay analysis. The major difference between a construction claim and most other forms of breach of contract claims is that the damages incorporated in a construction claim seldom, if ever, result from a single event. The same applies to delays which may have resulted from a number of concurrent or at times countervailing events. Additionally, a given delay caused by a single event may start a chain reaction leading to consequential delays down the road, rendering the quantification of the contractor's entitlement that much more difficult.

### **PARALLEL v. CONCURRENT DELAYS**

Delay caused by more than one event may be called either parallel, when the causes are within the control or the risk of the same party, or concurrent when the responsibility for the delay is shared by both parties. Dealing with parallel delays is less difficult than with concurrent delays. With respect to the truly concurrent delays, both Canadian and U.S. courts have taken similar positions: "leaving the parties where they have found them", that is, each suffering the burden of its own wrongdoings without right of recourse. Such a determination, or lack of determination, of responsibility is usually supported by arguing that only he who comes "with clean hands" to the bar deserves remedy. Unfortunately a construction job seldom can be divided into neat little parcels to justify such an argument. Causes of delays can differ in their importance, or may yield different durations. Causes giving rise to delays often go unattended because some other "overriding" delay would prevent progress anyway.

These and many similar combinations of parallel acting delays make such an analysis an art and not a science. Every reasonable litigation accountant would agree that such an exercise is well beyond the scope of accountancy and requires extensive construction experience.

### **WHAT ABOUT THE FLOAT?**

If the possible permutations of the above

scenarios presents difficulties for the uninitiated, then the next hurdle on the road to the equitable solution may be insurmountable, perhaps even for those who are familiar with the theory but not the practice of scheduling. This hurdle is the disposition of the float, or using another expression, the slack in the overall duration of a sequence of related and necessarily proceeding activities measured against the critical path of the project.

Not every delay extends the duration of the job. The duration of a given activity may be extended without giving rise to increased costs, not even to the cost of that activity. Other delays could give rise to cost increase without changing the overall duration. Simply stated, such a delay did not interfere with the critical path, probably because the activity had a float.

A word of caution: floats are often nothing more than mere mirages; they exist in theory only. While scheduling without resource allocation can be very misleading, delay analysis without considering its impact on resource utilization is not a delay analysis at all. The real critical path on most projects goes through resources, such as equipment (e.g. tower crane), or a plant (e.g. the batching plant), or camp space (on camp jobs), or trade with limited supply, etc.

Unfortunately, this fact goes unrecognized by inexperienced analysts who schedule with unrestricted resources.

## **FAMILY OF SCHEDULES**

The techniques used for delay analysis vary and an analysis performed in Europe will differ from that carried out in the U.S.A. To some degree every experienced analyst has his/her preferred method. There is, nevertheless, a number of generally recognized techniques. The oldest, and still favoured by the courts in many jurisdictions, is the Family of Schedules approach, where the family is made up of the contractor's original As-Planned schedule, the graphical presentation of the job history or the As-Built schedule and the Equivalent Extended Duration schedule, often called the Entitlement schedule. Both the As-Planned and the As-Built schedules are, or at least intended to be, factual, the As-Planned because it has or is deemed to have existed from the outset of the project, and the As-Built because it

depicts actual events. The credibility of this technique therefore depends on the third member of the family, the Entitlement schedule. A direct comparison of the As-Planned and the As-Built schedules is of little use when determining the contractor's entitlement either to extended duration and/or compensation because such a comparison does not apportion the total delay into the appropriate categories (e.g. chargeable, excusable or compensable). The Entitlement schedule is being introduced to overcome that handicap. It is prepared by extending the duration of each activity of the original As-Planned schedule, directly affected by either excusable and/or compensable delays (depending on the intended purpose of the analysis). Upon completing these adjustments, the critical path is recalculated to yield the completion date that the contractor could have achieved without the problems of its own making or those resulting out of events for which it assumed the risk under the contract.

If the duration of the so-calculated Entitlement schedule is equal to or exceeds that of the As-Built, then the contractor is entitled to compensation with respect to both the extended duration and, perhaps, acceleration. On simple jobs, provided the analysis is done properly, the results ought to be fair and reasonable. Unfortunately, not many construction jobs of today fall into the "simple" category. Where the As-Built duration exceeds that of the Entitlement schedule, a number of other issues (e.g. liquidated damages, etc.) must also be considered.

More importantly, however, there are three basic flaws inherent in this technique:

1. It uses the As-Planned schedule assuming that the job was performed within the logic and sequencing, and with the planned resource allocation of the As-Planned schedule. Assumptions seldom supportable in real life.
2. The analyst using this technique can rarely capture the effects of secondary or consequential delays.
3. Finally, this technique is of little help in apportioning concurrent delays. It is nevertheless a tool, and at times the only tool available to the analyst.

The problem of dealing with concurrent delays can be very significant, particular-

ly due to the courts' reluctance to apportion responsibilities, unless the claimant can demonstrate that the division of responsibility can be accomplished in a clear, logical manner. In fact, some courts hold out for an objective determination.

Many efforts have been made to improve this technique, and in fact all of the other methods in use today are a derivation of the Family of Schedules concept.

## **THE CORPS OF ENGINEERS METHOD**

The first published follow-up technique is to be found in the U.S. Corps of Engineers Impact Cost Guide (1979). The thrust of this approach is to eliminate the concurrency problem and to estimate future delays for change order pricing. Actually, the usefulness of this technique is probably limited to front-end pricing of change orders only. The criticism against it is that for it to be meaningful it ought to be repeated each time a significant change is contemplated, thus it can be very time-consuming. Moreover, it disregards consequential delays. The usual response by the advocates of this method is that any contractor with a good scheduling system and a good scheduler can do it without extra effort. Furthermore, estimating the impact of individual changes is not more difficult than estimating the impact of similar risks during the tendering process. What this argument fails to recognize is that during the original estimate the contractor knows both the scope and the risks of the job and prepares its entire plan and resource allocation accordingly. The same is not true with respect to changes, particularly frequent changes introduced at different intervals. Each change is an interference with the orderly job plan which, if it happens often enough, can have devastating consequences. This combined impact of multiple changes can be quantified only after they have occurred. It is of interest to note that the afore-described Entitlement schedule is nothing more than the accumulation of all the individual analysis (carried out for each significant contemplated change) recommended by the Corps of Engineers, with one major difference: the Corps' method uses the then current schedule as opposed to original As-Planned; accordingly it is an improvement.

## **THE SNAPSHOT METHOD**

A further refinement is found in the "snapshot" method of analysis. This technique was featured in an earlier issue of The Revay Report, and will not be described here, except to underline the difference between the snapshot and the Corps of Engineers' methods. Both techniques can be used independently or in conjunction with other methods, but whereas the Corps' approach solves the problem of concurrency, in case of the snapshot technique the apportionment has to be by the analyst. On the other hand the snapshot technique captures consequential delays while the Corps' approach does not.

## **THE COLLAPSING TECHNIQUE**

The great advantage of the snapshot technique is that it deals with facts (i.e. actual occurrences) and not estimates; however, at times it is difficult to comprehend by the uninitiated (e.g. a jury, in the U.S.A.) and accordingly it is used more frequently as a means to an end and not the end itself, i.e. demonstration of the final conclusion. For such a presentation the collapsing technique is probably the most appropriate. The Collapsed schedule is the reverse of the Entitlement schedule: it extracts from the As-Built schedule all compensable and/or excusable delays (depending on the purpose of the analysis) and the residual duration represents the time the contractor would have required to complete the project with the resources actually mobilized (i.e. either initially or pursuant to an acceleration order).

The advantage of the Collapsed schedule over the Entitlement schedule is that the former deals with facts i.e. the actual duration and sequencing of real activities, but it has the same potential failing: the identification and quantification of consequential delays is left to the skill of the analyst. Admittedly, this difficulty can be reduced considerably by combining the snapshot and the collapsing techniques and introducing productivity analysis.

It is not difficult to see, that there is no foolproof method of delay analysis and that the reliability of the results depends on the skills, experience and integrity of the analyst. Yes! Litigation support is both an art and a science.

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## **ALTERNATIVE DISPUTE RESOLUTION**

### **WHY ADR?**

In recent years the most frequently heard "buzz" word in the arena where construction disputes are dealt with has been "ADR", the acronym for Alternative Dispute Resolution. Judges, particularly those with administrative duties, have for some time now been warning the public that commercial disputes, with minor exceptions, have no place in courts. Former Chief Justice of the U.S. Supreme Court Warren E. Burger observed in 1985: "... there are better ways of doing it (resolving private disputes) and in the public interest we must move toward taking a large volume of private conflicts out of the courts and into the channels of arbitration, mediation and conciliation."

Mme Justice Beverley McLachlin of the Supreme Court of Canada in a recent talk "Construction Disputes: A View From The Bench" said that most construction disputes are too complex and overly technical for our courts and ought to be dealt with elsewhere, e.g. using Alternative Dispute Resolution techniques. It is clear that the judiciary is doing its best to get rid of lengthy and complicated construction trials, probably to free-up judges and courtrooms to handle criminal, constitutional or family matters. From their point of view such a thrust is understandable. But is ADR similarly beneficial to the prospective litigants? Many lawyers do not think so. In the December 1990 issue of the Arbitration Journal (the official magazine of the American Arbitration Association) Dana H. Freyer in an article "The Integration of ADR into Corporate Law Firm Practice" lists the following reasons behind the lawyers' resistance to more frequent use of ADR:

1. Traditional training of lawyers is towards litigation;
2. The law of inertia which impedes the change in the way lawyers think about dispute resolution; and
3. Fear of loosing business.

*(cont'd)*

## **ADR (cont'd)**

### **THE INTEREST OF CLIENTS**

On the other hand, lawyers have long advised clients to negotiate and settle disputes if such a resolution is believed to be in the client's best interest. Accordingly, it is possible that lawyers at times are accused unjustly of resisting ADR and the key is the real, or the presumed, interest of the client (usually, but not always, the defendant). It is a well-documented fact that arbitration is no better and perhaps even worse (both from the point of time and cost) a vehicle than litigation, unless both parties are genuinely desirous to resolve their disputes. Neither arbitration nor any of the other ADR techniques are capable of coping with an obstructionist defendant.

### **VARIOUS ADR TECHNIQUES**

The various ADR techniques are not necessarily interchangeable. Different situations require different solutions. Even though arbitration and mediation are both alternative solutions to litigation, they are not necessarily suitable alternatives to one another.

The most popular and best known techniques are: arbitration, mediation, mini-

trial (either the American or the Canadian version) and conciliation. Each one has advantages and disadvantages depending on the inclination of the parties, the complexity of the dispute and the value of the claim. In addition to the above-listed, there are other lesser known but just as practical techniques, subject of course to the nature of the conflict. One of the oldest and usually the least expensive ADR is the one practiced by the London Cattle Food Trade Association, that could be most suitable also for the construction industry. The rules of that technique are somewhat similar to arbitration, and if the parties so decide the result can be binding and enforceable in law.

### **A NEW METHOD FOR CONTRACTORS**

According to these rules, if a dispute arises, both parties (or all the parties in case of a multi-party dispute) appoint "an arbitrator" familiar with the type of work giving rise to the dispute but not interested in the transaction. Both arbitrators (or all of them) should have a mandate to reach a binding agreement on behalf of their nominating party. Upon their appointment the arbitrators, independently, familiarize themselves with

the facts. Once both arbitrators have gained a working knowledge of the contract and the issues in dispute, they meet (without the parties) with a view to hammering out a resolution. Should they fail in their endeavour, they must have the power to jointly select and appoint an umpire (or referee) with the authority to act either as an arbitrator or as a mediator (as the parties have decided).

The so-appointed umpire then hears presentations from both arbitrators, who act now as "advocates": arguing the case of their clients. Each advocate may present documentary evidence or written brief but no oral testimony of witnesses is required (perhaps not even permitted).

This technique has the advantage that the "litigants" (i.e. the parties to the dispute) are not required to face one another; accordingly the animosity so frequent and always counterproductive in the classical adversary proceedings is either entirely avoided or at least kept under wraps. Additionally, this technique is expeditious and usually informal. These attributes would be of particularly great benefit to parties who deal with one another continuously, such as subcontractors and general contractors.

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