

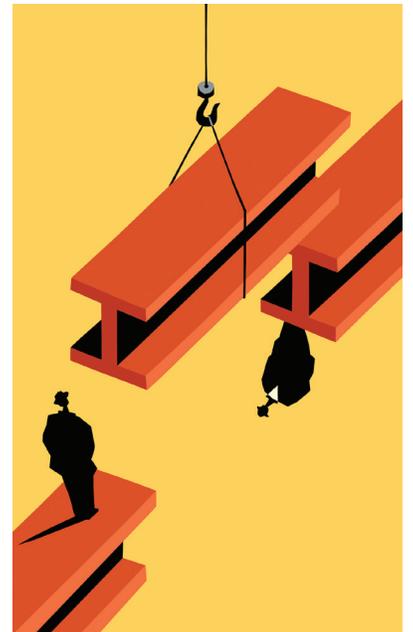
Comparison of English and U.S. Law on Concurrent Delay

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INTRODUCTION

Legal principles developed in Common-Law countries dominate triers-of-fact decisions in construction throughout the world. Even in non-Common Law countries, the ideas developed in Common Law countries with reported decisions and published reasoning, are used as models on how to resolve construction disputes, even though that exact issue may not be covered by the code based laws that are used in that country. It is not surprising, therefore, that there is great commonality between Common Law and non-Common Law countries as to how to treat particular events on a construction site. This is the result of three elements: 1) many international and domestic construction contracts throughout the world are based on standard legal contract forms developed in Common Law countries; 2) many of the principle players in international construction contracts have a history of working with contracts that are based on the law of Common-Law countries; and 3) there are more legal decisions with published reasoning coming from Common Law countries.

However, in one particular area of construction law – the concept of “concurrent delay”¹ – two of the major Common Law countries have seemingly different approaches, each of which is poorly explained or inconsistently applied by the jurists or other triers-of-fact. Despite numerous judicial decisions, neither the English nor the U.S. law has a coherent or comprehensive approach to the consideration of concurrent events. Further, the two countries approach the issues with different concepts and different vocabulary. The paragraphs that follow discuss the current state of the legal principles of English and U.S. law as it pertains to concurrent delay.



1. C. Brasco, and C. Anzidei, “Concurrent Delay and the Critical Path: Views from the Bench,” (February 2010), *Cost Engineering Journal*; M. Cocklin, “International Approaches to the Legal Analysis of Concurrent Delay: Is There a Solution for English Law?” 30 *Const. LJ* 41, 47 (2014);

WHAT IS CONCURRENT DELAY?

The differences in the treatment of concurrent delay between English and U.S. law are apparent in their definitional differences. The most typical recognized definition in English law is:

*"...Concurrent delay is used to denote a period of project overrun which is caused by two or more effective causes of delay which are of approximately equal causative potency."*²

This definition has some significant differences from its U.S. counterpart:

*"Concurrent delays occur when there are two or more independent causes of delay during the same time period."*³

Yet, the definitions of concurrent delay do not always help clarify the terms as reflected in the following comments:

*"The exact definition of concurrent delay is not readily apparent from its use in contract law, although it is a term which has both temporal and causation aspects. Concurrent delays affect the same "delay period"."*⁴

COURTS AND EXPERT GUIDES

The U.S. and England are fortunate to have a robust system of courts and professional organizations that have provided decisions, opinions, discussions, and guides on the issue of concurrent delay. In recent years, English law seems to have more closely reached a consensus⁵ on certain aspects of concurrent delay, as represented by *Walter Lilly & Company Ltd. v. Gile Patrick*.⁶ This case endorses the approach as reported in *Henry Boot (UK) Ltd. v. Malmaison Hotel (Manchester) Ltd.*, and rejects an alternate approach, discussed later in this paper. The *Malmaison* approach is summarized as follows:

*"If there are two concurrent causes of delay, one of which is a Relevant Event, and the other is not, then the contractor is entitled to an extension of time for the period of delay caused by the Relevant Event notwithstanding the concurrent effect of the other event."*⁷

In the U.S., most cases use language with a similar effect to that of England, but which hides a variety of different ideas concerning concurrency:

*"Where the delay is prompted by inextricably intertwined concurrent Government and contractor causes, the delay is not compensable nor are liquidated damages assessable."*⁸

Professional organizations in both England and the U.S. have developed guidelines concerning concurrency that have augmented the technical underpinnings of the judicial decisions. In England, *The Society of Construction Law Delay and Disruption Protocol*, (hereinafter, *SOCL-DDP*)⁹ issued a well-reasoned synopsis as follows:

1. True concurrent delay is the occurrence of two or more delay events at the same time, one an Employer Risk Event, the other a Contractor Risk Event, and the effects of which are felt at the same time. True concurrent delay will be a rare occurrence.
2. Where Contractor Delay to Completion occurs concurrently with Employer Delay to Completion, the Contractor's concurrent delay should not reduce any EOT due;
3. Where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects, here again the Contractor Delay should not reduce the amount of EOT due to the Contractor as a result of the Employer Delay; and,

2. J. Marrin, "Concurrent Delay Revisited", *Society of Construction Law*, London February 2002, Pg2.; Cited favorably in: S. Furst, and V. Ramsey, *Keating on Construction Contracts*, (9th Ed., Sweet & Maxwell, 2012, Para 8-025; and N. Dennys, M. Raeside, and R. Clay, *Hudson's Building and Engineering Contracts*, 12th Ed. Sweet & Maxwell 2010, Para 6-059.

3. *AACE International Recommended Practice No 10S-90 "Cost Engineering Terminology"*, AACE International, Morgantown, WV, 2012.

4. *George Sollitt Construction Co. v. U.S.*, 64 Fed. Cl. 229 (2005), footnote 8.

5. The author has used English law as opposed to United Kingdom law because Scotland, despite its recent decision to stay part of the U.K. does NOT follow England on the law of concurrency. This is discussed later in the paper.

6. *Walter Lilly & Company Ltd. v. Gile Patrick*, 2012 EWHC 1773 (TCC) (11-Jul-2012).

7. *Henry Boot (UK) Ltd. v. Malmaison Hotel (Manchester) Ltd.*, (1999) 70 Con LR 32 (TCC).

8. *Coffey Construction Company Inc.*, VABCA No. 3661 (11-Feb-1993).

9. *The Society of Construction Law Delay and Disruption Protocol*, Oxford 2002.



4. If the Contractor incurs additional costs that are caused both by Employer Delay and Contractor Delay, then the Contractor should only recover compensation if it is able to separate the additional costs caused by the Employer Delay from those caused by the Contractor Delay,

In the U.S., AACE International published an extensive catalogue on forensic schedule delay as the *Recommended Practice on Forensic Schedule Analysis, RP29R-03 (2011)*, (hereinafter *AACE 29R-03*).¹⁰ Included in the document is a detailed section on concurrency with a four bullet point summary:

- » Two or more delays that are unrelated, independent, and would have delayed the project even if the other delay did not exist;
- » Two or more delays that are the contractual responsibility of different parties, but one may be a force majeure event;
- » The delay must be involuntary; and,
- » The delayed work must be substantial and not easily curable.

The issues presented in these professional guides will be extensively discussed in the paragraphs that follow.

ISSUES CONCERNING ENGLISH AND U.S. CONCURRENCY

While there are several common definitions used under U.S. law, they are more similar to each other than they are to the English definition. The following is list of some of the issues that must be addressed when discussing U.S. and English law on concurrency:

1. The English issue of "Relevant Event."
2. The English definition identifies "Causative Potency" as a major issue. There is no similar counterpart in any U.S. definition.¹¹
3. Certain English cases rely on the "Dominant Cause"

principle. This also appears to have no counterpoint in U.S. law, but this might be traced to U.S. courts in recent years who rely on CPM scheduling to separate events that might otherwise be considered concurrent.

4. Certain English cases invoke the "Prevention Principle." U.S. law agrees, without giving the concept such a memorable name.
5. English law uses the word "effective" whereas the U.S. definition uses the word "independent." It appears that both legal systems agree that the two causes of delay must be unrelated, that is, they do not stem from a common occurrence or problem.
6. U.S. definition identifies "delay" without specifying that the delay manifests itself at the end of the project, or during the project. The English definition seems to make clear that the manifestation of the delay must appear as a "project overrun," thus denoting the delay must manifest itself at the end of the project. U.S. Courts have also concluded that the delay must manifest itself as a delay to the overall project – a critical path delay.
7. Under the English definition, there is no mention of simultaneity. In the U.S., the issue of simultaneity is a major issue.¹²
8. Apportionment, Jury Verdicts and how the courts segregate alleged concurrent delays.
9. While there is a "settled" approach in England, there are three different approaches to concurrency in the U.S., all of which are followed.

RELEVANT EVENT

While many of the issues discussed below are seemingly mere differences in vocabulary, one essential vocabulary difference can be addressed with little difficulty. The term "Relevant Event" as it appears in the previously quoted definition from *Henry Boot (UK) Ltd. v. Malmaison Hotel (Manchester) Ltd.*¹³, simply means that it is an event for which

10. K. Hoshino, C. Carson and J. Livengood, *AACE International Recommended Practice No 29R-03 "Forensic Schedule Analysis"*, AACE International, Morgantown, WV, 2011, page 101.

11. However, *AACE's Recommended Practice 29R-03 (2011)* does identify that a concurrent delay must be "substantial and not easily curable," Section 4.2.C.4, Page 103.

12. K. Hoshino, C. Carson and J. Livengood, *AACE International Recommended Practice No 29R-03 "Forensic Schedule Analysis"*, AACE International, Morgantown, WV, 2011, page 104.

13. *Henry Boot (UK) Ltd. v. Malmaison Hotel (Manchester) Ltd.*, (1999) 70 Con LR 32 (TCC).



the owner or employer is contractually liable or a force majeure event. This event generally entitles the contractor to a time extension. In recent years, the term “relevant event” has been adopted¹⁴ and endorsed¹⁵ by courts and commentators on the law of concurrency in England. One of the apparent by-products of this concept that remains largely unaddressed and assumed in English decisions on concurrency is that the relevant event applies to time only. Damages incurred by the contractor or those by the owner, whether liquidated or proven, are not recoverable in concurrency.¹⁶ This is the same rule as in the U.S.

CAUSATIVE POTENCY

The term seems not to have been generally used in English case law, but rather is a term coined by commentators to reflect an underlying assumption present in cases using a “dominant cause” theory. However, the causative potency seems to be a lower level test, a simple hurdle to prove that the delay is not of minimal importance.

Interestingly, this same concept was developed by AACE RP29R-03 in the U.S., and similarly there seems to be no case law to support the use of this technical test. The AACE RP29R-03 concludes:

“This requirement [that the delay must be substantial and not easily curable] comports with common sense. If one of the delays is associated with a minor element of work that could easily be performed, that work should not create a concurrent delay. This element is closely allied with the involuntary nature of truly concurrent delays cited above.”¹⁷

At the same time, the U.S. courts often achieve the same result through the apportionment process, detailed causative, and CPM analysis, as discussed in the paragraphs below.

DOMINANT CAUSE

The term “Dominant Cause,” as used in English cases, has no named counterpart in U.S. law. Nevertheless, the functional analysis that English courts perform in determining the “dominant cause” is similar to the factual examination and CPM schedule analysis presented U.S. courts. The source of the English concept seems to be *City Inn Ltd v. Shepherd Construction Ltd.*, which states:

“I agree that it may be possible to show that either a relevant event or a contractor's risk event is the dominant cause of that delay, and in such a case that event should be treated as the cause of the delay. A similar principle was recognized in Doyle, at paragraph 15 of the opinion of the court; the principle is derived from the older case of Leyland Shipping.”¹⁸

English commentators¹⁹ have seemingly concluded that the term “dominant cause” is merely a reflection which a careful examination of the facts will often reveal that one of the delays claimed to be concurrent is simply not concurrent, either because they occurred at different times or because one delay was not controlling the progress of the work. Like “causative potency,” U.S. courts often achieve the same result through the apportionment process, a detailed causative analysis, including a forensic schedule analysis. In U.S. terms, the delay is not on the critical path.

PREVENTION PRINCIPLE

The prevention principle is the underlying concept governing the law of concurrent delay in England. The theory is that if an event occurs for which the owner or employer is legally responsible – making it a relevant event – then the contractor is entitled to a time extension for that delay.

14. S. Furst and V. Ramsey, *Keating on Construction Contracts* (9th edition, Sweet & Maxwell, 2012), para 8-025.

15. *Adyard Abu Dhabi v. SD Marine Services* [2011] EWHC 848 (Comm), [2011] BLR 384, 136 Con LR 190, para [277].

16. S. Furst and V. Ramsey, *Keating on Construction Contracts* (9th edition, Sweet & Maxwell, 2012), para 8-025.

17. K. Hoshino, C. Carson and J. Livengood, *AACE International Recommended Practice No 29R-03 “Forensic Schedule Analysis”*, AACE International, Morgantown, WV, 2011, Section 4.2.C.2.

18. *City Inn Ltd v. Shepherd Construction Ltd* [2007] CSOH 190 (Court of Session, Outer House), [2008] BLR 269, (2008) 24 Const. LJ 590, [2008] CILL 2537; and *City Inn Ltd v. Shepherd Construction Ltd* [2010] CSIH 68 (Court of Session, Inner House), 2011 SC 127, 2011 SCLR 70, [2010] BLR 473, 136 Con LR 51, [2010] CILL 2889.

19. J. Marrin, “Concurrent Delay Revisited”, *Society of Construction Law*, 2013, Page 13.



The alleged concurrent delay will not prevent the proper application of the contractor's deserved time extension. The coincidental occurrence of a contractor delay should not impinge on this fundamental contract obligation, unless the contract itself states otherwise.²⁰

Unfortunately, like the judiciary in the U.S., the courts in England are not consistent on this matter. For example, in *Jerram Falkus Construction Ltd. v. Fenice Investments Inc.*, the judge ruled that the prevention principle is inapplicable in cases of concurrency ruling that:

*"Accordingly, I conclude that, for the prevention principle to apply, the contractor must be able to demonstrate that the employer's acts or omissions have prevented the contractor from achieving an earlier completion date and that, if that earlier completion date would not have been achieved anyway, because of concurrent delays caused by the contractor's own default, the prevention principle will not apply."*²¹

It does not seem that the issue, discussed so prominently in England when considering concurrency, is addressed in U.S. cases frequently. Yet the concept of an underlying obligation for a time extension in the instance of an owner-responsible delay seems assumed in virtually all cases of delay: "A delay for which the Government is responsible is excusable by definition."²² Therefore, while seldom if ever discussed in U.S. cases, the underlying concept of "prevention" exist in U.S. law in the same manner as English law.

Therefore, for these first four elements, there is little difference between English and U.S. law.

EFFECTIVE AND INDEPENDENT

This threshold issue requires that there be two separate causes of the delay, whether they are delays to a single activity or a delay to separate activities. If the causes of the delay are the same, then the examination of the court is focused on the responsibility for that causative event. There is relatively little discussion in English cases on the issue of the independence of the alleged separate events in concurrency. English commentators also seem to assume the delays are the result of separate events, although a leading English commentator lists the requirement of independence as a characteristic of concurrency:

*"Two independent events causing a delay to progress on the critical path (or paths) at the same time, both having the same effect on completion."*²³

In contrast, U.S. commentators often list the requirement of independence of cause as one of the first requirements of concurrency. AACE RP29R-03 states in relation to the independence of the allegedly independent events:

*"Concurrent delays occur when two or more unrelated and independent events delay the project. When two or more parties contribute to a single delay to the project and the causation is linked or related, the event is not considered to have two concurrent causes."*²⁴

Like English courts, U.S. courts and boards seldom address the independence of causation of the delay events. Nevertheless, U.S. commentators seem to agree that the delays must have separate causes.²⁵

20. J. Marrin, "Concurrent Delay Revisited", *Society of Construction Law*, 2013, Page 13.

21. *Jerram Falkus Construction Ltd. v. Fenice Investments Inc.*, EWHC 1935 (TCC), [2011] BLR 644, 138 Con LR 21, [2011] CILL 3072, para [52]. In accord; *Adyard Abu Dhabi v. SD Marine Services* [2011] EWHC 848 (Comm), [2011] BLR 384, 136 Con LR 190, para [277].

22. *Uttley-James, Inc.*, GSBCA No. 5370, 85-1 BCA 17816 (1984); In accord, *Cline Construction Co.*, ASBCA No. 28,600, 84-3 BCA 17594 (1984); *Titan Pacific Construction Corp.*, ASBCA No 24,148, 87-1 BCA 19,626 (1987). See also J. Wickwire, T. Driscoll, S. Hurbut, and M. Groff, *Construction Scheduling: Preparation, Liability and Claims*, 3rd Ed, Wolters Kluwer, Chicago, IL, 2010, Section 9.08[G].

23. K. Pickavance, *Delay and Disruption in Construction Contracts* 3rd ED, LLP, London 2005, Para 16.16, page 623.

24. K. Hoshino, C. Carson and J. Livengood, *AACE International Recommended Practice No 29R-03 "Forensic Schedule Analysis"*, AACE International, Morgantown, WV, 2011, Section 4.2.C.1.

25. B. Bramble, and M. Callahan, *Construction Delay Claims*, (2000), (3d ed. Supp. 2010), Aspen Publishers, New York. Para 1.01[D]; T. Trauner, W. Maginelli, S. Lowe, M. Nagata, B. Furniss, *Construction Delays*, (2009, 2ed.), Elsevier Inc., London, page 31; P. Keane, A. Caletka, *Delay Analysis in Construction Contracts*, Wiley-Blackwell, London 2008, page 93.



DOES THE DELAY HAVE TO BE MEASURED AT THE END OF THE PROJECT?

This apparent difference between U.S. and English law concerning concurrent delay's impact on the overall project is, in fact, not a difference. U.S. cases make it clear that the delays have to be along the critical path, specifically, they have to create a delay to the completion date. For example, in *Santa Fe, Inc.*, the Board found the claimed concurrent delays were not on the critical path because they did not extend the completion of the project:

*"In terms of the concurrent delay rule, the concurrent delay must pertain to activities whose completion was critical to the completion of the project itself. ...Relief from the imposition of liquidated damages must depend upon showing concurrent delay in respect to activities on the critical path."*²⁶

English cases support interpretation that the concurrent delays must manifest themselves in a delayed completion; that is, a delay along the critical path:

*"It is well established that the Employer is not entitled to liquidated damages if by their acts or omissions they have prevented the Contractor from completing their work by the completion date. Whether concurrent with another Contractor delay or not, there is no reason the principle should not be the same."*²⁷

As with the previous topics, these last two discussed again show little divergence between English law and U.S. law as it relates to concurrency.

SIMULTANEITY

Both English and U.S. commentators have considered the issue of simultaneity of potentially concurrent events. These

present themselves in two major ways. First is the issue of the cause and effect, since the cause of the delay is often separated in time from the effect. Secondly, do the delay events occur at exactly the same time? English courts have specifically addressed the issue of simultaneity, although, like U.S. decisions, there is considerable confusion as to the exact meaning of the decisions.

In *Royal Brompton Hospital NHS Trust v. Hammond & Others*, the English court specifically discussed the issue of simultaneity and rejected the need for the alleged concurrent events to coincide, except for their impact on completion:

*"It should not matter whether the shortage of labour developed, for example, two days before or two days after the start of a substantial period of inclement weather; in either case the two matters operate concurrently to delay the completion of the works."*²⁸

The courts' language has generated some concern and dispute in England;²⁹ however, two of the most prominent commentators on concurrency in England have endorsed the position that the delays need not occur simultaneously. John Marrin, QC states:

*"The distinction between concurrency of causes and the concurrency of the effects of delay has been recognized. Plainly there is room for a distinction between sequential events which cause concurrent delay, on the one hand, and coincident events which cause concurrent delay, on the other."*³⁰

Further, the SOCL-DDP seems to take a more expansive view:

"Where Employer Risk Events and Contractor Risk Events occur sequentially but have concurrent effects, here again any Contractor Delay should not reduce the amount of EOT due to the Contractor as a result of the Employer Delay. Again, it will be necessary to carry out analyses of each

26. *Santa Fe, Inc.*, VABCA No's 1943-1946, 84-2 BCA 17,341 (1984).

27. N. Dennys, M. Raeside and R. Clay, *Hudson's Building and Engineering Contracts*, 12ED, Sweet & Maxwell, 2010, para 6-060.

28. *Royal Brompton Hospital NHS Trust v. Hammond & Others* (2001) 76 Con LR 148, Para. 31.

29. "In *City Inn* at first instance, Lord Drummond Young said that he had some difficulty with the distinction sought to be drawn by Judge Seymour. In the same case on appeal, the Inner House of the Court of Session agreed." [Footnotes deleted], J. Marrin, "Concurrent Delay Revisited," *Society of Construction Law*, Feb-2013, Page 3.

30. J. Marrin, "Concurrent Delay Revisited," *Society of Construction Law*, Feb-2013, Page 3.



delay (see 1.4.5 above). This analysis will be important for determining whether any compensation will be due for the Employer Delay (see Guidance Sections 1.8 and 1.10). Analyses should be carried out for each event separately and strictly in the sequence in which they arose."³¹

The Guidance explanation in SOCL-DDP of the function of sequential delays is entirely consistent with English case law and most of that with U.S. law. Essentially, these paragraphs describe where there are two unrelated delays occur at separate times, the one that is the responsibility of the owner ("relevant" in the English lexicon) deserves a time extension because it was an owner-caused delay event. The contractor delay does not entitle the owner to a reduction in the time extension. Left unsaid is that the contractor may be entitled to costs associated with the owners delay.

Distinguishing sequential from simultaneous delays has also been specifically addressed by U.S. courts. They seem to have come to the conclusion that CPM analysis can distinguish the two, and that the delays should not be treated as anything but separate delays. In *R.P. Wallace, Inc. v. U.S.*, the Court defined "sequential delays" as two or more different delays occurring over time, not necessarily connected or in exact sequence. The Court then proceeded to discuss the evolution of how sequential delays should be evaluated for purposes of assessing liquidated damages. The court opted for an approach that allocated responsibility for such delays. For those delays for which the contractor was responsible, the Government was entitled to assess liquidated damages. In parallel, though not discussed in the case, the contractor would be entitled to delay damages for that period of time which could be allocated to the Government's responsibility.

The case of *Fischbach & Moore International Corp.* is often cited for the proposition that non-simultaneous delays

along the critical path can create concurrency.³³ Yet, on this project there was no late completion due to recovery efforts of the prime contractor. Thus the court was not being asked to consider the application of liquidated damages as is usual in concurrency cases. Instead the court was only considering the amount of delay caused by the government prior to the contractor's subsequent acceleration so that the contractor could recover delay damages. Nevertheless, the court concluded that sequential delays of the government reduced the alleged concurrency stating:

*"With regard to the alleged intertwining of Government-caused and concurrent delays in this case, we have found, in the critical path analysis offered by appellant, a ready and reasonable basis for segregating the delays. If the delays can be segregated, responsibility therefor [sic] may be allocated to the parties. As will be seen in the discussion that follows, we have no such difficulty in [segregating delays in] the present case."*³⁴

Therefore, the court found that sequential delays, alleged to be concurrent and critical, were not and could be subject to apportionment.³⁵ In U.S. courts, the typical method of dispensing with the concept of non-simultaneous delays is to look to the CPM delay analysis presented at trial.³⁶ For example, in *Tyger Construction Co. v. U.S.*, the Board was able to dissect the events on the project and allocate delays as identified by the contractor's expert, rather than use the method proposed by the Government's expert.

AACE RP29R-03 AND SIMULTANEITY

While many U.S. cases have addressed the issue of simultaneity through a detailed review of the CPM schedule and a detailed chronology, no court has yet considered the issue of "literal" and "functional" concurrency identified in

31. *The Society of Construction Law Delay and Disruption Protocol*, Oxford 2002, Guidance 1.4.7

32. *R.P. Wallace, Inc. v. U.S.*, 63 Fed. Cl. 402, 410 (2004).

33. B. Bramble, and M. Callahan, *Construction Delay Claims*, (2000), (3d ed. Supp. 2010), Aspen Publishers, New York. Para 11.09[A].

34. *Fischbach & Moore International Corp.*, ASBCA 14216, 71-1 BCA 8775, 59244.

35. See also: *Essex Electro Engineers v. Danzig*, 224 F.3rd 1283 1295 (Fed Cir. 2000), where the court was able to apportion alleged concurrent delays that occurred sequentially.

36. While the quality of such presentations is beyond the scope of this discussion, this author believes that much of the seeming inconsistency in how U.S. courts consider concurrency flows from the technical schedule delay presentations made by experts.



AACE RP29R-03. The AACE says:

"Under the Literal Theory, the delays have to be literally concurrent in time, as in 'happening at the same time.' In contrast, under the Functional Theory, the delays need to be occurring within the same analysis period."³⁷

In the "literal" theory, if the delays do not start at the same time, they are not concurrent. Under the literal theory, the first delay to commence creates float in the entire network, so the subsequent delay is by definition not on the critical path and does not therefore delay the project completion.³⁸ While the AACE RP29R-03 and some commentators have observed that exact simultaneity is impossible³⁹, a more rational approach is to recognize that virtually all CPM schedules use the day as the smallest unit of time, so delays starting on the same day, regardless of what time in that day they started, are considered simultaneous.⁴⁰

The "functional" theory takes the more practical, if potentially less accurate position that concurrency should be measured based on the forensic measurement periods. If the two delays start within the same time slice ("window"), then they should be considered concurrent. This has the practical efficiency of treating potentially concurrent delays in the same manner as non-concurrent delays for the purpose of evaluation and analysis. It also reflects the inherent imperfection of event measurement.⁴¹

On the issue of simultaneity of the concurrent delays, the courts say it is not required, but seldom actually find non-simultaneous concurrent delays. Rather courts almost always apportion the delays based on detailed schedule analysis and assign delays to the responsible party. Only when

insufficient evidence is presented do they conclude that they cannot apportion and fall back on the old rule on non-apportionment. There are no clear court decisions where they discuss the issue of literal or functional concurrency as identified in AACE RP29R-03.

This is the first of our discussion topics where there seems to be difference between U.S. and English law. In the U.S. there is a decided tendency to prefer apportionment in order to distinguish what might otherwise be considered non-simultaneous delays. The case law in England is not clear on this point.

APPORTIONMENT V. JURY VERDICTS

As with many matters concerning CPM law, the same word has come to mean different things.⁴² Apportionment is such a word. As used in this article, "apportionment" means the allocation of delay and damages based on the factual evidence, such as a detailed CPM analysis. It does NOT refer to the "jury verdict" method of segregating delays, that is dependent on the relative merit or significance of the asserted delays. With this understanding, in the U.S., apportionment of concurrent delay between the owner and contractor is common. Apportionment is possible because the courts are often presented with a detailed factual summary and CPM analysis that permits a near day-to-day parsing of responsibility.⁴³ Nevertheless, courts sometimes confuse "apportionment" as discussed above with "jury verdict."⁴⁴

37. K. Hoshino, C. Carson and J. Livengood, *AACE International Recommended Practice No 29R-03 "Forensic Schedule Analysis"*, AACE International, Morgantown, WV, 2011, Section 4.2.D.1; See also: R. Long, *Analysis of Concurrent Delay on Construction Claims*, Long International, Inc. 2013.

38. V. Ostrowski and M. Midgett, "Concurrent Delay Analysis in Litigation," *Cost Engineering*, Vol. 48/No. 1 (January 2006).

39. K. Hoshino, C. Carson and J. Livengood, *AACE International Recommended Practice No 29R-03 "Forensic Schedule Analysis"*, AACE International, Morgantown, WV, 2011, Section 4.2.D.1; R. Long, *Analysis of Concurrent Delay on Construction Claims*, Long International, Inc. 2013.

40. J. Livengood and T. Peters, "The Great Debate: Concurrency vs. Pacing Slaying the Two-Headed Dragon," 2008 *AACE International Transactions*. AACE International. Morgantown, WV.

41. J. Livengood and T. Peters, "The Great Debate: Concurrency vs. Pacing Slaying the Two-Headed Dragon," 2008 *AACE International Transactions*. AACE International. Morgantown, WV.

42. See generally, J. Livengood and P. Kelly, "The Law of Schedules," *Cost Engineering*, (September 2013).

43. It should be noted that such a parsing is not generally available if the schedule delay methodology is performed and summarized in time-windows. This would imply that in order for a detailed allocation of delay responsibility in an alleged concurrency situation to be made, the analysis must be performed in a more detailed manner such as a day-by-day evaluation.

44. See the extensive discussion of this issue in: J. Wickwire, T. Driscoll, S. Hurlbut, and M. Groff, *Construction Scheduling: Preparation, Liability and Claims*, 3rd Ed, Wolters Kluwer, Chicago, IL, 2010, Section 9.08[G2], page 438. See Also: B. Bramble, and M. Callahan, *Construction Delay Claims*, (2000), (3d ed. Supp. 2010), Aspen Publishers, New York. Para 1.01[D]; "The Burden of Proof in Government Contract Schedule Delay Claims," 22 Pub. Cont. LJ 125 (1992).



Most English commentators believe the status of apportionment is very different in the United Kingdom;⁴⁵ however, I submit that the apparent disapproval of "apportionment" by the English courts is actually a disapproval of "jury verdict" notwithstanding the use of the word "apportionment." Ever since its publication in 1999, the *Malmaison* approach⁴⁶ was the dominant approach in deciding concurrent delay in the U.K. While "apportionment" had been argued and considered in English cases, such an approach had been generally distinguished.⁴⁷ In 2007, the *Scottish Court in City Inn Ltd. v. Shepherd Construction Ltd.*⁴⁸ took a different approach. The Scottish judge concluded that the delay between the concurrent owner and contractor events, while considering the relative causative importance and degree of responsibility for such delays, should be segregated:

"That exercise of [apportionment in concurrency] is broadly similar to the apportionment of liability on account or contributory negligence or contribution among joint wrongdoers. In my opinion two main elements are important: the degree of culpability involved in each of the causes of the delay and the significance of each of the factors in causing the delay. ... In this respect, two matters appear to me to be potentially important. The first of these is the length of the delay caused by each of the causative events; that will usually be a relatively straightforward factor. The second is the significance of each of the causative events for the Works as a whole. Thus an event that only affects a small part of the building may be of lesser importance than an event whose effects run throughout the building or which has a significant effect on other operations. Ultimately, however, the question is one of judgment."⁴⁹

This approach is clearly NOT "apportionment" as used in U.S. cases where the factual sequence and relation to the critical path, often reflected in detailed CPM analysis, is discussed. The discussion instead is similar to the "jury verdict" approach in the U.S. The *City Inn* approach, regardless of what it has been called, was decisively rejected by English courts in 2012. In *Walter Lilly & Company Ltd. v. Gile Patrick.*, the court ruled that "apportionment" was not appropriate in concurrent delay cases since it violated the long-standing principles associated with "Relevant Events." The court said:

"[W]here there is an extension of time clause such as that agreed upon in this case and where delay is caused by two or more effective causes, one of which entitles the Contractor to an extension of time as being a Relevant Event, the Contractor is entitled to a full extension of time... The test is primarily a causation one. It therefore follows that, although of persuasive weight, the City Inn case is inapplicable within this jurisdiction."⁵⁰

The Courts' words, "primarily causation," indicate to this writer that a detailed analysis of the delays, complete with a CPM analysis and detailed chronology, could provide sufficient "causation" as to allow the appropriate allocation of responsibility for events that created a delay to completion. This position against the "significance of each of the factors" in allocating delay has been supported by some of the major commentators in the U.K.,⁵¹ but has been questioned by others.⁵²

Again there seems to be a difference between U.S. law and English law on this topic. As with the previous section, the U.S. courts favor following a detailed factual analysis, often including detailed a detailed CPM analysis in order to

45. N. Denny, M. Raeside, and R. Clay, *Hudson's Building and Engineering Contracts*, 12th Ed. Sweet & Maxwell 2010, Para 6-060.

46. *Henry Boot (UK) Ltd. v. Malmaison Hotel (Manchester) Ltd.*, (1999) 70 Con LR 32 (TCC).

47. See, J. Marrin, "Concurrent Delay Revisited," *Society of Construction Law*, Feb-2013, Page 10.

48. *City Inn Ltd v. Shepherd Construction Ltd.* [2007] CSOH 190 (Court of Session, Outer House), [2008] BLR 269, (2008) 24 Const. LJ 590, [2008] CILL 2537; and *City Inn Ltd v. Shepherd Construction Ltd.* [2010] CSIH 68 (Court of Session, Inner House), 2011 SC 127, 20 11 SCLR 70, [2010] BLR 473, 136 Con LR 51, [2010] CILL 2889.

49. *City Inn Ltd v. Shepherd Construction Ltd.* [2007] CSOH 190 (Court of Session, Outer House), [2008] BLR 269, (2008) 24 Const. LJ 590, [2008] CILL 2537, para 44. The Judge also apportioned delay damages, para 167.

50. *Walter Lilly & Company Ltd. v. Gile Patrick.*, 2012 EWHC 1773 (TCC) (11-Jul-2012), para 370.

51. See; S. Furst, and V. Ramsey, *Keating on Construction Contracts*, (9th Ed., Sweet & Maxwell, 2012, Para 8-025; and N. Denny, M. Raeside, and R. Clay, *Hudson's Building and Engineering Contracts*, 12th Ed. Sweet & Maxwell 2010, Para 6-059.

52. M. Cocklin, "International Approaches to the Legal Analysis of Concurrent Delay: Is There a Solution for English Law?", *Society of Construction Law*, London, April 2013, and M. Cocklin, "International Approaches to the Legal Analysis of Concurrent Delay: Is There a Solution for English Law?" 30 Const. LJ 41, 47 (2014).



apportion the delays, thus finding no or less concurrency. The English judiciary have specifically rejected the concept of segregating the delay based on the degree of culpability involved in each of the causes, and remains uncommunicative on segregating delays based on a detailed factual analysis.

THREE DIFFERENT APPROACHES TO CONCURRENCY IN THE U.S.

The greatest difficulty is discussing the law as it concerns concurrency in the U.S. is that there is little consistency in how courts have approached the issue. Messer's C. Brasco and C. Anzidei phrase it as follows:

"While courts uniformly seem to agree upon the basic rules of concurrency, the uneven application of these rules to recurring fact patterns has given rise to inconsistent precedent and a lack of predictable guidance for parties seeking to avoid future disputes."⁵³

The identification of different evaluative theories in concurrency is made more difficult and complicated because the term "apportionment" is used in two separate ways in U.S. cases. First "apportionment" is used to describe the process where the court looks at the detailed factual basis, particularly a CPM based delay analysis, and concludes that the events are not actually concurrent – they do not BOTH fall on the critical path.⁵⁴ Since there is wide body of court decisions following this line of reasoning and using the term "apportionment," this author has continued to use the term "apportionment" in this paper.

Second, "apportionment" is sometimes used by some cases to allocate the delays based on the significance of each of the concurrent events on the project as a whole.⁵⁵ This author has used the term "jury verdict" to describe this process. The

distinction between these understandings is often confused. First, the historical record of the facts and basis of previous court decisions is not as clear as might be liked – it is murky. Second, courts admonition that "jury verdict" (though they use the word allocation) is not preferred, is often directly contradicted by a process that parses the delays based on a fact-based CPM analysis - allocation.⁵⁶ Third, CPM experts almost always discuss concurrency, but this discussion is more often incorrect and confusing than it is helpful.⁵⁷

There seems to be three major applications of concurrency present in court decisions over the past decades. These different approaches reflect both the historical inability to segregate delays as well as the more modern theories of apportionment. The three approaches, all currently used in U.S. courts, are:

- » Intertwined Delays
- » Apportionment of Delays
- » Jury Verdict Method of Delay Segregation

Intertwined Delays

The earliest decisions expressing an understanding of concurrency in the U.S. are coincidental with the growth of contract law that accompanied the U.S. Civil War in the latter half of the 19th century. In *Stewart v. Ketetas*⁵⁸, the court found that the delays occasioned by the owner and the contractor prevented either the owner or the contractor from recovery damages. Half a century later, in *Shook v. Dozier*, the court summarized the then-current law as:

"Courts cannot know of these conditions as they actually existed at the time, and the evidence would be very unsatisfactory, taken months after, that would attempt to set forth all such conditions. Therefore courts have laid down the very salutary rule to the effect that they will not attempt to apportion delays where the causes have been mutual, but will refuse under such circumstances to enforce the penalty."⁵⁹

53. C. Brasco, and C. Anzidei, "Concurrent Delay and the Critical Path: Views from the Bench," (February 2010), *Cost Engineering Journal*, page 18.

54. *Santa Fe, Inc.*, VABCA Nos. 1943-1946, 84-2 BCA 17,341 (1984); *Williams Enterprises, Inc. v. Strait Manufacturing & Welding, Inc.*, 728 F. Supp. 12 (D.D.C. 1990); *Utley James, Inc.*, GSBCA No. 5370, 85-1 BCA 17,816 (1994); *Tyger Construction Co. v. U.S.*, 31 Fed Cl. 177 (1994).

55. You may have noticed I am paraphrasing the Court in *City Inn Ltd v. Shepherd Construction Ltd*. [2007] CSOH 190 (Court of Session, Outer House), [2008] BLR 269, (2008) 24 Const. LJ 590, [2008] CILL 2537, para 44.

56. *Sauer Inc. v. Danzig*, 244 F.3rd 1340 (Fed. Cir.2000).

57. The experts are wrong at least 50 percent of the time –every losing side. However, since the reasoning associated with the winning side is often muddy or flawed, I assume that at least a substantial portion of the winning sides got concurrency wrong too: not a favorable record for schedule delay experts.

58. *Stewart v. Keteltas*, 36 N.Y. 388, (1867).

59. *Shook v. Dozier*, 168 F. 867, 874, C.C.A. 6th Cir 1909).



The Courts' reluctance to attempt to dissect the factual intricacies associated with concurrent delay continued into the 20th century: "[T]he court will not undertake to apportion responsibility for the delays."⁶⁰ Even on the eve of the application of modern CPM analysis developed in the 1950s, many courts were following this hands-off attitude.

Even more recent cases have continued this strain of decisions. In *Coffey Construction Company*, the Board undertook its own evaluation of the delays because it found the expert's presentations of schedule analysis unreliable. Despite finding the contractor's delays on the critical path, while the governments' were not, the Board found:

*"[The] delays to the project as a whole were inextricably intertwined and were caused jointly and concurrently by both parties. It is evident that substantial completion of the project as a whole could not have occurred without the completion of all three of those activities."*⁶¹

This line of cases is based on the absence of proof as to causation of the delay, an inability to separate owner-caused delays from contractor-caused delays, and a reluctance to speculate as to relative culpability and segregate the delays.⁶² This approach is still good law where it is impossible to parse the concurrent delays;⁶³ however, because of the greater sophistication of forensic schedule delay analysis in the past 25 years, this reasoning has given way to the other, more modern approaches as discussed below.

Apportionment of Delays

This analytical approach to the resolution of concurrent delay issues is the primary mechanism in determining the outcome of such issues in the U.S. As discussed above, some recent cases, such as *Commerce Intern Co. v. U.S.*,⁶⁴ seem to follow the "intertwined delay" approach, and have used that path only because the court found the evidence

of a more nuanced segregation impossible. In recent years, most courts have found repeatedly that claims of concurrency, when examined in the harsh light of factual chronologies and detailed CPM analyses, do not show one single overall concurrent delay, but rather show critical and non-critical delays:

*"Appellant cannot successfully urge, as it apparently seeks to do, that because critical Contractor caused delays ... were concurrent with noncritical Government delays ... the imposition of liquidated damages may be avoided. Relief from the imposition of liquidated damages must depend upon a showing concurrent delay in respect to the activities on the critical path."*⁶⁵

This position has been adopted in most recent court and board cases in the U.S.⁶⁶ Nevertheless, the courts have continued to struggle with the apparent inconsistencies among intertwined delays, apportionment, and "jury verdicts." The best current explanation of this test is reflected in *George Sollitt Construction Co. v. U.S.*:

*"If the evidence shows that the contractor, along with the government, caused concurrent delay to the critical path of a project, the contractor must apportion the delays affecting the completion of the project to be able to recover delay damages. Because concurrent delays which do not affect the critical path of contract work do not delay project completion, an accurate critical path analysis is essential to the determination of whether concurrent delays have caused delay damages related to the delayed completion of a complex construction project. If government-caused delays did not interfere with the project's critical path, no costs related to delayed completion of the project are owed to the contractor. To recover for the delayed completion of the project, not only must plaintiff disentangle its delays from those allegedly caused by the government, but the delays must have affected activities on the critical path."*⁶⁷

60. *Greenfield Tap and Die Corporation v. U.S.*, 68 Ct. Cl. 61 (1929).

61. *Coffey Construction Company, Inc.* VABCA No. 3361, 93-2 BCA 25,788 (1993).

62. See also *John Murphy Construction Co.* AGBCA 418, 79-1 BCA 13836 (1979) and *Industrial Construction Corp.* AGBCA 84-348-1, 90-2BCA 22,767 (1990).

63. See, *Baldwin v. National Safe Depository Corp.*, 40 Wn. App 69, 697 P.2d 587 (1985).

64. *Commerce Intern Co. v. U.S.*, 167 Ct. Cl. 529, 338 F.2d 81 (1964).

65. *Blackhawk Heating & Plumbing Co.*, GSBGA no. 2432, 76-1 BCA 11,649 (1975).

66. See; *Williams Enterprises, Inc. v. Strait Manufacturing & Welding, Inc.*, 728 F. Supp. 12 (D.D.C. 1990); *Ulley James, Inc.*, GSBGA No. 5370, 85-1 BCA 17,816 (1994); *Tyger Construction Co. v. U.S.*, 31 Fed Cl. 177 (1994);

67. *George Sollitt Construction Co. v. U.S.*, 64 Fed. Cl. 229, 241 (2005).



Despite the minor muddle associated with the concept of "concurrent delays" not being on the critical path, the thrust of the opinion is well within mainstream thinking on concurrent delay and the preference for allocating responsibility based on a detailed chronology and forensic schedule delay analysis.⁶⁸

Jury Verdict Method Of Delay Segregation

The "jury verdict" approach to concurrency allocates the delays based on the significance of each of the concurrent events on the project as a whole and does NOT use a detailed chronology or schedule delay analysis in making such an allocation. This approach has two prerequisites. First, there must be two genuinely two concurrent delays, ones that occur at the same time, and both must delay the completion of the project and are thus both on the critical path. In this situation, the detailed factual and CPM analysis, if they exist, cannot segregate the delays into separate responsibilities for the parties. Second, the court must find that there is some basis for parsing the delay and damages associated therewith based on the significance of each of the concurrent events on the project as a whole. There are relatively few cases addressing this position clearly. For example, in *PLC Construction Services, Inc. v. U.S.*, the court said:

"[The rule against jury verdicts] is an old one whose underlying policies do not remain in full force. One of the dominant reasons underlying it is the early judicial hostility to the use of privately agreed upon contractual remedies. ... Today, given the complexity of contractual relationships, liquidated damage provisions have obtained firm judicial and legislative support.... We do not disagree with the difficulty of the task, but recovery should not be barred in every case by a rule of law that precludes examination of the evidence." [Citations Omitted]⁶⁹

In this case, the court concluded that there was sufficient information to allocate responsibility based on the factual evidence, and they did not resort to segregating the delays based on an "estimated allocation."

The case of *Fischbach & Moore International Corp.*, is also cited for the proposition that concurrent delays on the critical path, even if not able to be apportioned based on their factual basis and delay analysis, can be segregated in the manner of a "jury verdict." However, the court was able to allocate the delays based on their schedule analysis, and there was no need to resort to an "estimated allocation." The dicta expressed in the court's opinion have found favor with commentators.⁷⁰ Thus some modern courts recognize a "jury verdict" of responsibility, and thus delay, even when there is true concurrent delay that cannot be parsed based on the facts and delay analysis.

Yet the cases that actually render a decision on that basis are extremely rare. In the case of *Raymond Constructors of Africa, Ltd v. U.S.*, the court was unable to quantify the causation of three recognized impacts to the critical path; 1) the contractor's late procurement; 2) the owner's responsibility for the late local delivery of equipment; and, 3) poor productivity by the contractor, even with the substandard equipment. As a result the court made its own estimated segregation of responsibility:

Actually, there is no basis in the record on which a precise allocation of responsibility for the overall delay in completing the work under the contract can be made as between the defendant's delay in procuring equipment, ... [the government's] delay in transporting equipment ... to the job site, and the subcontractor's shortcomings. In such a situation, it seems that the only feasible thing to do is to make a finding in the nature of a jury verdict that the defendant's delay ... was responsible for one-third of the overall delay in the completion of the work under the contract and, hence, for one-third of the extra indirect expenses...⁷¹

68. See also: *Santa Fe, Inc.*, VABCA Nos. 1943-1946, 84-2 BCA 17,341 (1984); *Williams Enterprises, Inc. v. Strait Manufacturing & Welding, Inc.*, 728 F. Supp. 12 (D.D.C. 1990); *Utley James, Inc.*, GSBCA No. 5370, 85-1 BCA 17,816 (1994); *Tyger Construction Co. v. U.S.*, 31 Fed Cl. 177 (1994);

69. *PLC Construction Services, Inc. v. U.S.*, 53 Fed Cl. 429, 484 (2002). This author has used the word "allocation" instead of the actual text "apportionment" to keep the meaning clear.

70. B. Bramble, and M. Callahan, *Construction Delay Claims*, (2000), (3d ed. Supp. 2010), Aspen Publishers, New York. Para 11.09[B] J. Wickwire, T. Driscoll, S. Hurlbut, and M. Groff, *Construction Scheduling: Preparation, Liability and Claims*, 3rd Ed, Wolters Kluwer, Chicago, IL, 2010, 9.08[G].

71. *Raymond Constructors of Africa, Ltd v. U.S.*, 188 Ct Cl. 147, 411 F.2d 1227 (1969).



Cases like *Raymond* are rare, and most cases in the U.S. today decide delay in the cases of alleged concurrency using the allocation method, premised on the facts and a detailed forensic schedule delay analysis.

CONCLUSION

At a very basic level, English and U.S. law on concurrency is virtually identical. Both jurisprudence systems find that when two delays of roughly equal importance occur at the same time, one of which entitles the contractor to an extension of time, and both of which delay the completion of the project, an extension of time is granted for the period of delay, but no monetary damages are assessed. Nevertheless, at a detailed level, there are some differences. Based on the reported cases, U.S. courts seem much more willing than those in England to examine the allegedly concurrent events in detail and if possible, allocate the delays to the appropriate party, thus eliminating or diminishing the period of concurrency. English courts have specifically rejected the concept of segregating the delay based on the degree of culpability involved in each of the causes of the delay and the significance of each of the factors in causing the delay. In contrast, U.S. courts sometimes states that such segregation is appropriate, but seldom actually do so. The greatest difference between the two jurisprudence systems, however, is the poorly articulated methods by which U.S. courts find either no basis to allocate delay, allocate delay based on detailed factual and CPM analysis, or, being unable to allocate concurrent delays, instead choose to exercise their judgment and segregate the delay using a jury verdict. It thus appears that the deciding factor in both U.S. and English law is the quality of the proof in the detailed factual analysis and supporting schedule delay analysis.



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