The Minefield of Concurrent Delay: The Controversy of Time in NEC4 – Does Concurrency (Not) Exist?

RENATA VALNAROVA

Student ID: 19061652

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ABSTRACT

This dissertation concerns the concept of concurrent delay in the construction industry and whether it is operable under one of the most endorsed standard forms of contract in the public sector – NEC4. A workable definition and elements of concurrency is concluded, alongside an analysis of associated common law principles on assessment, entitlement, and prevention in England. The limited extent of concurrency treatment in other commonly used standard forms such as JCT and FIDIC has been evaluated. The programme and adjudication provisions in NEC4 suite of contracts are analysed in the context of concurrent delay and situations, where concurrency can actually be established under NEC4 are discussed. Recommendations for NEC4 drafters and users have been proposed, in order that the contentious issue of concurrency is addressed.

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CHAPTER 1.0: INTRODUCTION

1.1 Background: Why Concurrent Delay Matters, Under the NEC Suite of Contracts

Contractual problems have been identified[1] as a main reason for construction disputes, with delays being amongst the sub-dispute causes with the highest relative importance. Delays on construction projects have serious commercial impacts, including loss of revenue, and reputational consequences for employers and contractors. Due to the interdependent complex network of activities on a project, it is often difficult to establish the root causes of a particular delay in construction, which leads to disputes between the parties. Concurrent delay (hereinafter, also referred to as concurrency) is one of the most controversial and complex types of delay disputes in the construction industry. Overall, it describes a situation in which the effects of a contractor-culpable delay happen at the same time as the effects of an employer-culpable delay. The factual and legal complexity in this area of law is not at all novel[2]. Concurrent delay is considered a "troublesome concept"[3] and has been described as "a minefield"[4] in English law, illustrating the potential draconian consequences for the parties from the unpredictability underlining such types of delay. In its true meaning, concurrency is reported to almost never happen in the industry. It is, therefore, important to define what this concept means in practice as a starting point. If concurrent delay did not exist at all, then why would it be a topic of significant interest by commentators, legal professionals, and the judiciary? Lord Justice Coulson put it this way:

"[…] true cases of concurrent delay are extremely rare. But, because they are so often asserted, the problems to which concurrency gives rise need to be addressed."[5]

Furthermore, English courts have not provided consistent guidance on how to deal with concurrent delay claims and how to determine parties' culpability, in

[1] Cakmak E., Cakmak I. 'An Analysis of Causes of Disputes in the Construction Industry Using Analytical Network Process'. Procedia – Social and Behavioural Sciences, 109:183-187
[2] Burr, A. *Delay and Disruption in Construction Contracts,* (2016), 5th Edition, Informa Law. App.3
[3] Balen, M.,'Concurrent Delay, Over-Determination and The Problem of Default Rules', (2016) Constuction Law Journal, 32(3) 269-281, p.269
[4] Wrzesien, T.,'Concurrent Delay – A Map Through a Minefield' (2015) 16 (10) Cons Law 20
[5] Coulson LJ, 'Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses' (2019) SCL, 218

comparison to other jurisdictions such as Australia, U.S. and Scotland, which have established principles of law and implemented practices in standard contract forms to provide certainty in this subject area. The guidance on concurrent delay has been provided by the Society of Construction Law Delay and Disruption Protocol[6] (from now on, on the SCL Protocol) and is respected by adjudicators, arbitrators, and judiciary even outside of the UK borders, is extremely useful. However, this is not binding on the parties to a contract, unless expressly agreed.

The NBS Construction Contracts and Law Survey Report (2018)[7] indicates that the New Engineering Contract (NEC) suite of contracts is the second most used type of agreement in the United Kingdom to deliver construction projects and NEC Professional Services Contract is very commonly used, only preceded by bespoke agreements. Although the benefits of NEC have received criticism[8], Sir Michael Latham strongly recommended the use of the standard form, hence, it has been endorsed in the UK Government Construction Strategy[9] for public sector use and is amongst the contracts of choice listed in the Construction Playbook[10]. NEC's ethos is underlined by encouragement of good project management, early identification, and mitigation of risks and prompt resolution of disputes throughout the course of the project. The successful operation of NEC is based upon mutual trust, collaboration[11] and regular communication between the parties. The lack of significant case law on NEC4, which was more recently issued, and its the time management provisions, has been noted during this research. Therefore, the analysis is based mainly on the contract processes, legal commentary, and limited case law. Arguably, this indicates that the programme requirements and the alternative dispute resolution procedures under NEC4 are functional.

Based on the above, it is valuable to review the time provisions under the NEC contract considering concurrent delay, the impact on the common law principles, and to establish the extent to which this reportedly mystical concept could thrive under an NEC agreement (NEC4: June 2017 edition).

[6] SCL Delay and Disruption Protocol, 2nd Edition, P. 6
[7] NBS, National Construction Contracts and Law Report (2018) RIBA Enterprises. [Online]
[8] Uff, J., 'Is the Construction Industry Waving or Drowning?' (2017) SCL, Paper 203.
[9] Government Construction Strategy: 2016-2020 (2016), [Online]
[10] Cabinet Office, The Construction Playbook 2020, [Online]
[11] NEC4, Clause 10.2

1.2 Research Aim & Objectives

The aim of the research is to investigate whether concurrency can and should exist under the NEC suite of contracts and analyse the controversial role of adjudication on the functionality and existence of concurrent delay under NEC4. To achieve this, the specific research objectives that will be considered are as follows:

- Identify and explain the key elements of concurrent delay and applicable English common law principles;
- Evaluate provisions in standard forms of contract (the commonly used JCT, FIDIC) in an event of concurrent delay on a construction project;
- Analyse the question *Does Concurrency really (Not) Exist under NEC4* and explore any controversy that arises from that answer.

CHAPTER 2.0: DIVIDE AND CONQUER THE MINEFIELD – UNDERSTANDING CONCURRENT DELAY

2.1 Introduction to Chapter 2.0

The following Chapter will define concurrent delay, as the lack of consistency in the description of this concept appears to be problematic, especially as true concurrency is not believed to even exist. The elements of concurrent delay will be dissected so that the *mines* of concurrency can be *disarmed* for parties and in fact, this research. The treatment of concurrency under English common law and relevant issues such as the effective cause of delay, prevention principle and the *Malmaison* approach, will also be demystified in the analysis.

2.2 What Concurrency Is (Not) – Mines Disarmed by Common Sense

It has been argued that a clear definition of concurrency does not exist, regardless of the numerous attempts to describe this concept in a construction context[12]. Pickavance contemplated the added unpredictability introduced by the courts in this area of law:

"[…] conflicting and invariably long-winded theories of what concurrent delay is and is not, a problem that is doubtless perpetuated by judicial uncertainty on certain issues."[13]

Nevertheless, the following definition of concurrency, proposed by John Marrin QC, has been commonly accepted by commentators:

"'a period of project overrun which is caused by two or more effective causes of delay which are of approximately equal causative potency".[14]

This description was approved by the High Court in *Adyard Abu Dhabi v SD Marine Services*[15] as a "useful working definition"[16] and adopted[17]. More recently, this term was used in *North Midland Building Ltd v Cyden Homes*

[12] Cocklin, Matthew. 'International Approaches to the Legal Analysis of a Concurrent Delay: Is There a Solution for English Law?', Construction Law Journal 30.1 (2014): 41-56. Web.
[13] James Pickavance, 'Clarity on Concurrency – Concurrent Delay In Construction And Engineering Projects', Eversheds Sutherland, 2017, p.34
[14] Marrin, J. QC, 'Concurrent Delay', (2002), SCL 100 Also adopted in *Keating on Construction Contracts*, 9th Edition (2012), page 283.
[15] [2011] EWHC 848 (Comm)
[16] Ibid, Hamblen J at [277]
[17] Furst S. and Ramsey V,, *Keating on Construction Contracts*, (2016), 10th ed, Sweet & Maxwell, note 3, para 8-025

Ltd[18], however, it is argued[19] that Fraser J chose his words carefully so as not to approve the definition. Ironically, even though concurrency is often alleged by both contractors and employers, there appears to have been notable reluctance from judiciary and commentators to accept a universal description. The proposed definition by John Marrin QC resolved this issue to an extent. Nevertheless, a narrower understanding of concurrency, known as *true* concurrency, is being applied by the courts. For instance, in *The Royal Brompton Hospital NHS Trust v Hammond*[20] HHJ Seymour QC expressed a view that the occurrence of the events as well as their effects must be coincidental[21]. In other words, sequential events in time (non-contemporaneous delays), that cause delay in the completion of a project, should not be categorised as *true* concurrency[22]. Interestingly, in the leading Scottish case of *City Inn v Shepherd Construction Ltd*[23], Lord Drummond Young disagreed[24] with the distinction presented in *Royal Brompton Hospital*. Still, *City Inn* has not generally been followed by English courts, at least to date. Furthermore, the repairs of a cruise ship were delayed in *Saga Cruises BDF Ltd & Others v Fincantieri SPA*[25]; The narrow version of the definition of concurrent delay was applied by the court and the principles of causation were followed, although the contractor attempted to apply a wider meaning of concurrency. As a result, the contractor unsuccessfully argued that concurrent delays existed.

Exceptional factual situations are required to give rise to true concurrency[26]. Lord Justice Coulson even compared concurrent delay with *"a workable Brexit: regularly claimed to exist but almost impossible to find"*[27]. The inapplicability of true concurrency in practice has been accepted[28] *"since time is infinitely*

[18] [2017] EWHC 2414 (TCC)
[19] See note 13.
[20] (2001) 76 Con. L.R. 148
[21] Ibid, para 31
[22] Abu-Manneh, R, Helm U., Stone, J., Richter, M. . 'Concurrent Analysis of Concurrent Delay: The Approach in England, the UAE, Germany and Brazil.' (2020) International Construction Law Review. 107-129.
[23] [2007] CSOH 190
[24] Ibid, note 4, para 17
[25] [2016] EWHC 1875 (Comm)
[26] Furst, S. and Ramsey, V., *Keating on Construction Contracts*, (2016), 10th ed, Sweet & Maxwell, para 8-025
[27] LJ Coulson, 'Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses', (2019), SCL, 218.
[28] See note 26.

divisible"[29]. Similarly, the literal approach to accepting only *true* concurrency as concurrent delay has also been criticised by American commentators[30].

On the contrary, even though the SCL Protocol also differentiates[31] between the two types of concurrent delay, it recommends[32] that a *more common usage of the term concurrent delay* is implemented and suggests *a common sense view to delay analysis* to establish whether concurrent delay is in existence. The underlining emphasis on commonness suggests that the term concurrency can be more generally applied as:

"two or more events arise at different times, but the effects are felt at the same time"[33].

This is in line with the approach taken by John Marrin QC, outlined above. Therefore, the concurrency of the delaying effect of the events is now considered[34] more legally relevant to establishing concurrent delay. It has been observed[35] that it is a rare occasion in practice that the delays will be of equal effect and if this effect is at different points in time, the events may be characterised as "parallel", and not concurrent. The alternative interpretation that the delays should occur within the same measurement period (on separate paths, which concurrently impact completion) is acknowledged[36]. This proposition is considered in NEC4 context in Chapter 4.0.

2.3 Effective Delay Cause(s): Dominance Demobilising Concurrency

The distinction between concurrency of causes of delay and effects of delay has been acknowledged[37]. It is important to differentiate between the two concepts if concurrency is to be established. The application of the common law

[29] Livengood, J., Peters, T., 'ACCE International Transactions: The Great Debate: Concurrency vs Pacing Slaying the Two-Headed Dragon', (2008) CDR 6.02
[30] See Note 26
[31] SCL Delay and Disruption Protocol, 2nd Edition, Para 10.3
[32] SCL Delay and Disruption Protocol, 2nd Edition, Paras 10.3-10.4
[33] Ibid, para 10.4, p.30, Mastrandrea, F., 'Concurrent Delay: An Alternative Proposal for Attributing Responsibility' (2014) 30 Construction Law Journal 173 at 166.
[34]Moran, V. QC. 'Time Rolls On', published in Bailey, J. *Construction Law, Costs and Contemporary Developments: Drawing the Threads Together,* (2018), Hart Publishing. P. 330
[35] Bailey, J., *Construction Law*, (2016), 3rd Edition, Routledge, para 11.73
[36] Livengood, J., Thomas F. Peters, 'ACCE International Transactions: The Great Debate: Concurrency vs Pacing Slaying the Two-Headed Dragon' (2008) [06.10]
[37] Stevenson, A., 'Who Owns the Float and Related Legal Issues?' (2004) 20 BCL 97, p.109;

principles of causation and exploring the factual circumstances of each case are necessary to determine which event is the effective cause of delay[38].

In *Royal Brompton Hospital*, HHJ Seymour QC stated that:

"[Concurrent delay] does not mean, […], a situation in which, [with] work already being delayed, an event occurs which is a relevant event and which, had the contractor not been delayed, would have caused him to be delayed, but which in fact, by a reason of the existing delay, made no difference."

From this, it can be concluded that if an employer's risk event does not impact the completion date due to a contractor's own delay having already occurred, the *equal causative potency* requirement will not be met, and concurrent delay cannot be stablished.

Furthermore, the requirement of the two delays to be of *equal causative potency* has been reported[39] as an unhelpful and unnecessary condition. To that end, it has been argued[40] that the causative potency of two or more competing events that cause delay is often unequal and that it is not unusual to find that only a single cause is considered effective to the delay, further to exploring the factual context. Accordingly, John Marrin QC supports the view and expressed in *Royal Brompton Hospital* that:

"[…]in cases of supposed concurrent delay, the fact-finding exercise often reveals that it is in reality one event only which can be regarded as a true cause of delay. In such circumstances that cause of delay is not one of concurrent delay at all."[41]

If an event has a more significant causative potency than another, even if it has the same impact on the completion date as the other event, it can be described as the *dominant cause*. The *dominant cause* test, which requires the elimination of all other causes of delay, is supported by *Keating*[42] and has been accepted in *City Inn*. It follows that the delay will be confirmed as solely caused by the dominant cause, and any delay arising from the other event is superseded. The proposition that the *dominant cause* approach prevails if the causative potency

[38] Bailey, J., *Construction Law*, (2016), 3rd Edition, Routledge para 11.176
[39] Mastrandea, F. 'Concurrent Delay in Construction – Principles and Challenges' (2014) The International Construction Law Review. P. 107
[40] Marrin, J. QC, 'Concurrent Delay' (2002) , SCL Paper 100, p.8
[41] Marrin, J. QC, 'Concurrent Delay Revisited' (2013) Society of Construction Law, 179, p. 10
[42] Furst S. and Ramsey V., *Keating on Construction Contracts*, (2012), 9th ed. Sweet & Maxwell. para 8-022.

of the two events is uneven has been criticised due to lack of judicial support in English law[43], although this opposes Scottish law[44]. Still, it is argued[45] that the term *effective cause* is too general and if a dominant cause cannot be established, only then concurrency will come into existence.

The dominant cause approach was also rejected under a JCT form of contract (1963) in *Fairweather v London Borough of Wandsworth*[46] as a method for an arbitrator to assess the extension of time due to the contractor and associated loss and expense. The court referred to allocation of extensions of time for delays caused by the employer such as variations rather than simply applying the dominant cause assessment that strikes (outside of the parties' control) were the sole reason for delay. As we will see in Chapter 3.0, other forms of contract such as FIDIC and NEC equally do not validate the dominant cause approach.

With regards to causation, the case of *Balfour Beatty v Chestermount Properties* [47] did not consider concurrency explicitly but discussed the operation of an extension of time provision. Coulson J held that the employer risk events must be "operating simultaneously with the contractors' risk events"[48] and be "the cause of the progress of the works to be delayed". It is argued[49] that no analysis was given as to how this would operate in the context of causation, and that the employer risk event could only become relevant if it caused *further* delay to the works. This *further* delay, however, sits outside of the concurrent delay definition, as the effects of the delays are to be felt at the same time. The period for extending the completion further, beyond what the contractor had already contributed to, will clearly be an employer-culpable delay.

Contractor's delays can sometimes be considered[50] as *side-effects* caused by the employer's risk event – all the effects then can be passed on to the employer if the contractor's delay does not impact the completion date of the project further.

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[43] Moran, V. QC. 'Causation in Construction Law: The Demise of the' Dominant Cause' Test?' (2014) Society of Construction Law, Paper 190
[44] *John Doyle Construction Ltd v Laing Management* ScotCS 141 (11 June 2004)
[45] Hughes, J. Agapiou A, Blackie, J. 'Legal Developments in Relation to Concurrent Delay: The Position of the English and Scottish Courts'. (2016) University of Strathclyde.
[46] [1987] 38 BLR 106
[47] (1993) 9 Const LJ 117
[48] *Balfour Beatty v Chestermount Properties* (1993) 9 Const LJ 117 at 25
[49] Moran, V. QC. 'Time Rolls On', published in Bailey, J. *Construction Law, Costs and Contemporary Developments: Drawing the Threads Together,* (2018), Hart Publishing. P. 328
[50] Tobin, P., 'Concurrent and Sequential Causes of Delay' (2007), The International Construction Law Review Pt 2, 142-167, 143

Still, it is often the case that there is a link of cause and effect between two apparently independent activities[51] and causation can be established in that manner. Concurrency, though, will not exist as the causative potency will not be relevant if one event is caused by the other.

Judges generally apply common sense approach when deciding on issues of causation[52]. The judgment in *Adyard Abu Dhabi v SD Marine Services*[53] linked causation to legally existing concurrency as follows:

"The act [of the Employer] relied on must actually prevent the Contractor from carrying out the works within the Contract period or, in other words, must cause some actual delay."[54]

Based on the discussion above, the author submits that establishing whether two or more events were effective causes of actual delay is fundamental to confirming the presence of concurrency. The assessment of delay should not be established using the *dominant cause* test in English cases, however, reviewing the dominance of events can assist in finding whether concurrent delay exists. This is the case especially when all the events appear to be critical to the project programme.

2.4 Entitlement for Concurrent Delay: Malmaison Approach vs Apportionment

The English law position on entitlement for concurrent delay was established in the leading case of *Henry Boot Construction (UK) Ltd v Malmaison Hotel (Manchester) Ltd*[55]. The court dealt with a situation where there was no provision in the contract covering concurrent delay. In obiter, Dyson J created the now famous *Malmaison* approach as follows:

"[…] it is agreed that 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."[56]

[51] Kutil, P. M. and Ness, A.D. 'Concurrent Delay: The Challenge to Unravel Competing Causes of Delay' (1997) 17 Constr Law 18
[52] Potts, K., Ankrah, N.,*Construction Cost Management: Learning from Case Studies*, (2014) Routledge.
[53] [2011] EWHC 848 (Comm)
[54] Ibid, Hamblen J at 55
[55] (1999) 70 Con LR 33
[56] Ibid, [13]

The granted extension of time would release the contractor from its liability for liquidated damages, however, it will not be entitled to prolongation loss and expense[57], due to the operation of the *but for* test of causation. Still, the basis on which the courts have superseded the standard test for causation in concurrent delay cases has been questioned[58]. Although Akenhead J failed to explain what the test exactly entails, he confirmed that the causation test still applies to the extension of time claim, and held:

"There is nothing […] to suggest [in the contract clause] that the effect of an extension should be reduced if the causation criterion is established" [59]

In *De Beers UK Ltd v Atos Origin IT Services UK Ltd* [60] Mr Justice Edwards-Stuart reaffirmed that:

"The general rule in construction and engineering cases is that where there is concurrent delay to completion caused by matters for which both employer and contractor are responsible, the contractor is entitled to an extension of time but he cannot recover in respect of the (financial) loss caused by the delay."[61]

This "*time but not money*"[62] stance was approved in *Walter Lilly & Co Ltd v Mackay*[63]where the *Malmaison* approach was adopted under a JCT standard form as follows:

"[…] where 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".[64]

This is a clear departure from the Scottish approach indicated in *City Inn*, which is based on apportioning the concurrent delay between the employer and the contractor. In other words, it is open to a contract administrator to assess the extension of time due to the contractor by considering the relative causative potency of the events[65]. The matter of standard forms indicating a specific methodology to do this is discussed in Chapter 3.0.

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[57] LJ Coulson, 'Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses', [2019] SCL p.8

[58] Hughes, J. Agapiou A, Blackie, J. 'Legal Developments in Relation to Concurrent Delay: The Position of the English and Scottish Courts'. (2016) University of Strathclyde. P.10

[59] Ibid, [at 370]

[60] [2010] EWHC 3276 (TCC)

[61] Ibid, para 177.

[62] Balen, M, 'Concurrent Delay, Over-Determination and The Problem of Default Rules' (2016) Const LJ 32(3) 269-281, p.281

[63] [2012] EWHC 1773 (TCC)

[64] *Walter Lilly* [2012] EWHC 1773 (TCC); [2012] B.L.R 503 at [370].

[65] Bailey, J., *Construction Law*, (2016), 3rd Edition, Routledge, para 11.73

Additional consideration is the common sense approach to assessment. The case of *Motherwell Bridge Construction vs Micafil Vakuumtechnik*[66] concerned a contractor who was wrongly refused an extension of time for additional works and then accelerated the works, unsuccessfully attempting at recovery of costs. This case considered how the delay should have been assessed. However, the court somewhat departed from the *Malmaison* stance and observed that that the outcome of the approach taken must always be analysed with *common sense and fairness.* Therefore, the extension of time will only be awarded if it is fair and reasonable[67]. Indeed, the *all or nothing* approach[68] introduced by *Malmaison* may lead to unfair and disproportionate suffering of losses by one of the parties simply by coincidence.[69] On the contrary, the apportionment approach in *City Inn* is claimed to be fairer[70] . Nevertheless, a clear opposition that common sense leads to apportionment was expressed by Akenhead J in *Walter Lilly*:

"The fact that the Architect has to award a "fair and reasonable" extension does not imply that there should be some apportionment in the case of concurrent delays."[71]

Additionally, in the communications project case of *Steria Ltd v Sigma Wireless Communications Ltd* [72] the *Malmaison* approach was further endorsed by the judiciary as delay clause was interpreted as extension of time was due to the contractor, even if the employer's delay was not dominant.

Relaxation of the causation rules in contract[73] will be the outcome should the judiciary implement the Scottish way of apportionment of concurrent delay. This is unacceptable as a matter of policy. Additionally, apportionment is reported[74] to amount to *an important cautionary and regulatory function* due to it preventing Employers' resourceful practices to time instructions to align with contractor's delay so that extension of time claims could be avoided.

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[66] (2002) CILL 1913

[67] *Peak Construction (Liverpool) v McKinney Foundations* (1971) 69 LGR 1 CA, which considered impossibility to determine the effects of the delays; discussed in Chapter 3.0

[68] Marrin, J, 'Concurrent delay' Const LJ 2002 18(6) 436-448

[69] Grenier, G., 'Evaluating Concurrent Delay—Unscrambling The Egg', (2006), 53 Construction Law Reports, 47, 52.

[70] Bailey, J., *Construction Law*, (2016), 3rd Edition, Routledge, para 11.177

[71] para [370]

[72] [2007] EWHC 3454 (TCC)

[73] Furst S. and Ramsey V., *Keating on Construction Contracts*, (2012), 9th ed. Sweet & Maxwell, para 9-098.

[74] Cheung, M., 'Construction Law in 2018: A Review of Key Legal and Industry Developments', (2018), Informa Law. P.16

Unsurprisingly, Barry[75] recommended that the apportionment approach is considered by bodies drafting the extension of time clauses in the standard forms of contract as the *City Inn* decision is not supported by statute or authority to date, but this does not mean it is not reasonable. Nevertheless, there has been limited legal commentary on the possibility of the courts reconsidering the position in English law.

2.5 Preventing the Prevention Principle: Winning the Battle

The seemingly wrong concept of employers causing delays and holding contractors to the same completion date arose from the Victorian case of *Holme v Guppy*[76]. The perspective taken in 19th century was described as a modest approach[77], in comparison to the current view[78] that any liquidated damages are not due from the contractor should the employer cause a delay to completion date. The prevention principle in its present form is found in *Peak v McKinney*[79], even though the circumstances of the case were extreme. The court interpreted the extension of time clause as a way for the employer to retain their liquidated damages rights even when the delay is caused by the employer themselves. Due to the provision being to the benefit of the employer, because of the *contra preferentem* rule, it is to be construed against them[80]. The judgment that an *act of prevention* by the employer sets time *at large* and makes the liquidated damages provisions ineffective was followed in *Multiplex Construction UK v Honeywell Control Systems (No2)*[81]. Where key characteristics of the prevention concept[82] including the extension of time provision changing the view that time is "at large". The *Mutiplex* case established that the prevention principle does not apply if there is an extension of time clause for a particular employer's act of prevention. It follows that the extension of time provisions in construction and engineering contracts are generally aimed at eliminating the operation of the prevention principle. In other words, these clauses allow the

[75] Barry, D., 'Concurrent Delay in construction law: Lord Drummond Young's volte face' (2011), Construction Law Journal 27(3), 165-178, 169
[76] (1838) 3 M&W 387
[77] Sir Ramsey, V., 'Prevention, Liquidated Damages and Time at Large', (2012), SCL Lecture
[78] LJ Coulson, 'Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses', (2019) SCL
paper 218, p.2
[79] (1970) 1 BLR 111 (CA)
[80] Marshall, T. 'The Prevention Principle And Making The Contractor Pay For Employer Delay: Is English Law Departing From Its Roots? (Part 2)' ICLR Part 4 of 2020 [2020] ICLR 325. P.89
[81] [2007] EWHC 447 (TCC)
[82] Ibid, [note 8, para 56]

Employer to change the completion date, when the event that is causing the delay is the employer's own *act of prevention*.

In the Australian case of *Gaymark Investments Pty Limited v Walter Construction Group*[83] the extension of time clause allowed the contract administrator to extend the completion date even when the contractor had not given the required notice under the contract. The court followed LJ Salmon's judgment in *Peak v McKinney*[84], that the extension of time clause will be interpreted by the application of the *contra preferentem* rule and held that time was at large, therefore, the employer could not claim any damages. Nevertheless, in *Multiplex*, Justice Jackson protected the fundamental importance of condition precedent in English law and stated, in *obiter*:

[…]" If Gaymark is good law, then a contractor could disregard with impunity any provision making proper notice a condition precedent. At his option the Contractor could set time at large."

This concept of prevention aligns with the *Malmaison* approach as entitlement of extension of time is encouraged[85]. However, the prevention principle does not align with the apportionment approach, which is presumably one of the reasons English judiciary is not willing to accept apportioning liability.

It has generally been accepted that the prevention principle can be excluded by an express provision[86]. The ease with which it can be superseded will differ if the principle is considered an implied term or a rule of law[87] but only where there is an ambiguity in the express provision. Otherwise, if the clause is clear, then the principle is indisputably displaced.

In *North Midland Building Ltd v Cyden Homes Ltd*[88], the court clarified that the parties to a contract are free to allocate the risk of concurrent delay, Coulson LJ stated that "the prevention principle is not an overriding rule of public policy"[89] and affirmed that the clause excluded the application of the principle. The 2005 JCT Design & Build Form contract in this case included a clause, which stated:

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[83] [1999] NTSC 143
[84] (1970) 1 BLR 111 (CA)
[85] Marrin, J. QC, 'Concurrent Delay Revisited', SCL Paper 179 (February 2013)
[86] *Peak Construction (Liverpool) Ltd v McKinney Foundations Ltd (CA)* (1970) 1 BLR 111, p. 121
[87] Twivy, M, 'The Prevention Principle after North Midland v Cyden Homes: Time for a Change?' (2019) ICLR 375
p. 380
[88] [2017] EWHC 2414 (TCC)
[89] Ibid, para 30

"[…] any delay caused by a Relevant event which is concurrent with another delay for which the Contractor is responsible shall not be taken into account"

Remarkably, Coulson LJ added that the above clause *"[…] was designed to do no more than reverse the result in Henry Boot Construction (UK) Ltd v Malmaison Hotel Ltd and Walter Lilly cases."*

There is nothing in the contract (JCT), which states that the contractor will be denied an extension of time, should he be responsible for a concurrent delaying event[90].

Furthermore, the prevention principle was narrowed to a concept that may not be very practicable to the industry, where extensions of time clauses are common[91]. The attempt for the prevention principle to override contractual provision was not allowed by Fraser J, who held[92] the principle, referred to as *interventionist principle*[93], does not set aside the risk allocation agreed between the parties on concurrency, which was clear in the case of *North Midland Building.* The decision departed from the position in *Malmaison* and *Walter Lilly*, therefore, it has been acknowledged[94] that this issue is yet to be clarified by an appellate court. Fraser J in *North Midland Building*, in obiter, reaffirmed[95] the approach taken in *Abyard Abu Dhabi* that extension of time should not be granted to a contractor who had caused concurrent delay.

One could argue that authorities have leaned against the prevention principle as an implied term because it will be fairer to assess the extension of time granted to contractors, considering relevant concurrent delay events that they have caused. The position is clearly expressed by *Keating* as follows:

"[…] where there are concurrent causes of delay (one the contractor's responsibility and the other employer's) the prevention principle would not be triggered because the delay would have occurred anyway absent the employer delay event."[96]

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[90] Hughes, J. Agapiou A, Blackie, J. 'Legal Developments in Relation to Concurrent Delay: The Position of the English and Scottish Courts'. (2016), University of Strathclyde. P.6

[91] Cheung, M., 'Construction Law in 2018: A Review of Key Legal and Industry Developments' (2018), Informa Law. P.15

[92] Ibid, para 18-19

[93] Mathias Cheung, M., 'Construction Law in 2018: A Review of Key Legal and Industry Developments' (2018) Informa Law. P.16

[94] Cheung, M., 'Construction Law in 2018: A Review of Key Legal and Industry Developments' (2018), Informa Law. P.15

[95] Ibid, para 29

[96] Furst, S. and Ramsey, V., *Keating on Construction Contracts,* (2016), 10th Edition, Sweet & Maxwel. Para 8-014.

The view that the contractor must be able to demonstrate that the employer's acts prevented them of achieving the programme was also adopted in *Jerram Falkus Construction Ltd v Fenice Investments (Inc)*[97]. In obiter, Mr Justice Coulson observed that the prevention principle does not apply in cases of concurrent delay. This proposition has been questioned[98] and furthermore, there is an implied term[99] in every building contract that the parties will not do anything do delay the performance of the other.

Accordingly, in *Adyard Abu Dhabi*, the court held that prevention principle does not apply in cases of concurrent delay, leading to no entitlement to the contractor. Similarly, *North Midland* followed *Jerram Falkus* and it was found that it is reasonable to assume that any attempt to argue that prevention principle applies to concurrent delay will fail[100]. Marrin QC[101] analysed *Adyard Abu Dhabi* case and affirmed that HMJ Hamblen did not in fact state the prevention principle does not apply in concurrent delay situations and concluded that the prevention principle applies where the employer's act of prevention is the single cause of delay, and not when it is one of two. Hudson's editors[102], however, did not consider the act of prevention being concurrent with another contractor delay a reason not to apply the prevention principle. Akenhead J in *Walter Lilly* reaffirmed[103] that prevention principle is relevant to concurrency as it impacts on the interpretation of the extension of time clause and in particular, the causation requirement.

The courts have remained inconsistent in their view on whether prevention principle and concurrency operate together. For example, *Turner Corporation Ltd v Co-ordinated Industries Lrd & Ors*[104] the court affirmed the position that where an extension of time clause has been agreed between the parties, "there is no room for the prevention principle to operate"[105], even in cases of concurrent delay. Even though this proposition has been adopted, Doug Jones

[97] [2011] EWHC 1935 (TCC)
[98] Mastrandea, F., 'Concurrent Delay in Construction – Principles and Challenges' (2014) The International Construction Law Review. P. 107
[99] *London Borough of Merton v Stanley Hugh Leach Ltd* (1985) 32 BLR 51
[100] Pickavance, J. 'Clarity on Concurrency – Concurrent Delay in Construction and Engineering Projects', (2017) Eversheds Sutherland, p.10
[101] Marrin, J. QC, 'Concurrent Delay Revisited', SCL Paper 179 (February 2013). P.6
[102] Clay, R. and Dennys, N. *Hudson's Building and Engineering Contracts*. (2021) 14th Edition. Sweet & Maxwell. note 3, para 6-060
[103] at [370]
[104] (1995) 11 BCL 202
[105] Ibid, 217

AO has expressed his concerns[106]. Furthermore, Twivy[107] suggested that the prevention principle should be operable in cases of concurrent delay because the contractor, to an extent, has been "deprived from the opportunity" from achieving the completion date, due to the employer-culpable delay. The prevention principle was described by Brooking J as *"grounded upon considerations of fairness and reasonableness"* in *SMK Cabinets v Hili Modern Electrics Pty Ltd*[108].

It follows that the application of the prevention principle to concurrent delay cases has not yet been settled, but there is a strong argument that the principle is overridden in situations of concurrent delay, by a clear extension of time clause

2.6 Summary of Chapter 2.0

The commonly adopted working definition of concurrent delay was analysed in Chapter 2 alongside the resilience by the courts to accept it as a fact, that concurrency can exist and can be defined. Key elements of concurrency such as the concurrent effect of two or more delay events, at least one of which is a contractor-culpable delay or an employer-culpable delay, the causative force of the events, the operation of the prevention principle and entitlement for concurrency were reviewed.

[106] Jones D. AO, 'Prevention, Time-Bars and *Multiplex*', published in Bailey, J. *Construction Law, Costs and Contemporary Developments: Drawing the Threads Together*, (2018), Hart Publishing. P. 347

[107] Twivy M., 'The Prevention Principle After North Midland V Cyden Homes: Time For Change?' 2019, International Const Law Review. P.388

[108] [1984] VR 391

CHAPTER 3.0: CONCURRENT DELAY IN STANDARD FORMS OF CONTRACT & DELAY ASSESSMENT – IS IT REALLY THAT SCARY?

3.1 Introduction to Chapter 3.0

An appropriate starting point for Chapter 3.0 is the accurately articulated by John Marrin QC importance of the parties' agreement:

"[…] there is one truth which can scarcely be over-emphasised. The answers to the questions raised will depend on the terms of the contract which governs the relationship between the parties."[109]

Surprisingly, the effectiveness of standard forms to provide clear and effective guidance on how to resolve complex delay disputes between parties on construction projects has been questioned[110]. Still, construction contracts have been identified as an important mechanism that can resolve the problem of causal over-determination, often associated with concurrent delay, which is challenging to assess.[111]

3.2 Is There Any Ammunition Against Concurrent Delay in Standard Forms of Contract?

Usually, standard forms of construction contracts do not provide for or define concurrent delays[112]. This is surprising considering the amount of discussion in the industry and by commentators on the issue. Indeed, Bailey[113] affirmed that it is unusual for a contract to include a clause that deals with more than one causes of delay. Instead, the extension of time clauses in standard forms provide for granting the contractor an extension to the programme because of any fault or breach by the employer.[114] As established in Chapter 2.0, that if such provision is inambiguous, it arguably supersedes the prevention principle. From a more general perspective, Chappell[115] confirmed

[109] Marrin, J QC. 'Concurrent Delay Revisited', (2012) SCL, p. 19
[110] Hughes, J. Agapiou A, Blackie, J. 'Legal Developments in Relation to Concurrent Delay: The Position of the English and Scottish Courts'. (2016) University of Strathclyde. P.27
[111] Balen,M., 'Concurrent Delay, Over-Determination and the Problem of Default Rules', (2016) Constuction Law Journal, 32(3) 269-281
[112] Ronald J. Rider and Richard J. Long, 'Analysis of Concurrent/Pacing Delay' (2006) [Online]
[113] Bailey, J., *Construction Law*, (2016), 3rd Edition, Routledge, para 11
[114] Gould, N., 'NEC3 Contracts: Programming, Project Management, and Pricing – Have They Stood the Test of Time?' (2015), Society of Construction Law, Paper 177, P.32
[115] Chappell, D., *Building Contract Claims*, (2011) 5th Edition, Wiley-Blackwell. P. 32

the position of dealing with different types of delay in the standard forms of contract – some causes of delay will lead to successful extension of time claims by contractors, some – to extension of time, loss and expense, and others will not entitle the contractor to any remedy. To that end, LJ Coulson defined modern extension of time clauses in contracts as *prolix*[116], which may be considered unhelpful.

Whilst most case law about concurrency, some of which was explored in Chapter 2, deal with a JCT form of contract, it is suggested[117] that the dominant cause approach will equally not be imposed on other forms such as NEC and FIDIC, which also do not define concurrency specifically and do not attempt to change the causation test. Lord Justice Coulson put it this way:

"There is no reason why a workable concurrency clause could not be agreed…which provided that, if there was concurrent delay, the contractor would be entitled to an extension of time, and loss and expense."[118]

The recovery of loss and expense can, therefore, be expressly agreed, which will overturn the *Malmaison time but no money* approach. The point that contracts can include operable concurrency clauses in terms of entitlement to time was further emphasised by Bailey:

"[…] it is open to the parties to agree that the contractor's entitlement (or not) to an extension of time, in the event of concurrent delay."[119]

Turning to some standard forms, a workable definition of concurrent delay and a method of losses apportionment has been included in the CIOB Time and Cost Management Contract 2015[120], which has not been used often in the industry, therefore, no reports are available on the practicality of this clause.

In JCT Design & Build form (2016 edition) sub-clause 2.25.1 requires the Architect/Contract Administrator to give an extension of time *"as he then estimates to be fair and reasonable".* This may be considered a clause relevant

[116] LJ Coulson, "Prevention or Cure? Delay Claims and the Rise of Concurrency Clauses", [2019] SCL
Paper 218. P.7
[117] J Pickavance, J., 'Clarity on Concurrency – Concurrent delay in construction and engineering projects' (2017) Eversheds Sutherland, p.18
[118] See note 116
218. Para 45
[119] Bailey, J., *Construction Law*, (2016), 3rd Edition, Routledge , p, 841
[120] Clause 52

to concurrent delay. This provision has been interpreted[121] to mean a choice between the available approaches to assessment of concurrent delay: dominant cause, apportionment, or *Malmaison,* on condition that the result is fair and reasonable. As discussed in Chapter 2, such approach of fairness was adopted in *Peak Construction (Liverpool).* The JCT Design and Build standard form was also used in *North Midland Building* case, considered in Chapter 2. A new Sub-clause 2.25.1.3(b) that was added to the standard form, agreed by the parties, stated:

"any delay caused by a Relevant Event which is concurrent with another delay for which the Contractor is responsible shall not be taken into account"

There is nothing in the JCT standard form which states that the contractor will be denied an extension of time, should he be responsible for a concurrent delaying event[122]. Therefore, the above provision was contrary to the intention of the unamended contract. In *Henry Boot Construction v Central Lancashire New Town Development[123]* Judge Fay QC commented on the JCT Standard Form with Quantities (1963 edition) as follows:

"The broad scheme of these provisions is plain. There are cases where the loss should be shared, and there are cases where it should be wholly borne by the employer. There are also cases, those cases which do not fall within either of these conditions and which are the fault of the contractor, where the loss of both parties is wholly borne by the contractor. But in the cases where the fault is not that of the contractor the scheme clearly is that in certain cases the loss is to be shared: the loss lies where it falls"

Moreover, a new sub-clause 8.5 of the FIDIC Yellow Book 2017 ends with a reference to concurrency:

"If a delay caused by a matter which is the Employer's responsibility is concurrent with a delay caused by a matter which is the Contractor's responsibility, the Contractor's entitlement to EOT shall be assessed in accordance with the rules and procedures stated in the Special Provisions […]"

This provision has been described as "neutral"[124] but it means that the parties should deal with the matter of concurrency during the negotiation stage. In the absence of an express agreement, the Contractor's entitlement to extension of

[121] Abu-Manneh R., Helm U. Stone J., Richter M. 'Concurrent Analysis of Concurrent Delay: The Approach in England, The UAE, Germany and Brazil', (2020), International Const Law Review
[122] Hughes, J. Agapiou A, Blackie, J. 'Legal Developments in Relation to Concurrent Delay: The Position of the English and Scottish Courts'. (2016), University of Strathclyde. P.6
[123] (1980) 15 B.L.R
[124] Glover, J. 'Some Thoughts on How The 2017 FIDIC Contract Deals With Time' (2018) [Online]

time is resolved having regard to the relevant circumstances (sub-clause 8.5). Therefore, under FIDIC does not provide detail as to the basis on which concurrency should be assessed or dealt with[125]. To achieve a fair result of apportionment, an analysis is necessary to establish whether employer is entitled to liquidated damages. This is the case solely where the concurrent cause of delay is a neutral event or an innocent delay.[126]

3.3 Determination of Concurrent Delay – Mines to Assess

The SCL Protocol states that a delay analysis should determine concurrent delay, in cases where the events are sequential but cause impact to the critical path. There are many differing approaches to assessing concurrent delay claims[127], although there has not been clarity on which is the most suitable method[128]. Nevertheless, it has been argued[129] that concurrent delays cannot be recognized and assessed by existing delay analysis methods. However, as described in Chapter 2.0, it is often challenging to define and understand the concept of concurrency, it is not surprising that there is an assumption that concurrent delay cannot be calculated easily. Most standard forms of contract do not specify a method for evaluation of delays, even though the methodology of assessment is an important choice, as it may affect the outcomes of the analysis[130]. An exception is the NEC form of contract, which does specify an overall approach to calculation of delays, as we will see in Chapter 4.0.

The following methods of analysing concurrent delay are popular in practice:

- First in line: chronological assessment of events, with the first to occur taking precedence;
- Dominant cause: a matter of fact which is the dominant cause of delay, which takes precedent over other causes of delay;

[125] Stewart J., Grant de Lisle G, Karpik K. 'A Global Perspective on Extensions of Time in Construction Projects' (2020) The International Construction Law Review, p.236
[126] Okonmah, N. 'The Prevention Principle and the Risk of Employer-caused Delay under the 2017 FIDIC Suite of Contracts' (2021) International Construction Law Review, p.261
[127] Marrin, J. QC, 'Concurrent Delay', (2002), SCL Paper 100
[128] Potts, K., Ankrah, N.,*Construction Cost Management: Learning from Case Studies*, (2014) Routledge.
[129] Yang, J.B. and Kao, C.K. (2012), "Critical Path Effect Based Delay Analysis Method for Construction Projects", International Journal of Project Management, Vol. 30 No. 3, pp. 385-397.
[130] Parvaneh Shahsavand, Akbar Marefat, Majid Parchamijalal, 'Causes Of Delays in Construction Industry and Comparative Delay Analysis Techniques With SCL Protocol', Causes of Delays in Construction Industry, (2017), p. 497

- Apportionment.

The reader will recognise the last two terms from Chapter 2.0. Both concepts have been rejected by English law as established. It could be argued that first-in-line approach is implemented in NEC4, where each compensation event is assessed chronologically and delay impact of each is based on a baseline programme, which is revised regularly. This chronological methodology is undertaken as a forecast though as further discussed in Chapter 4.0. Still, the state of "paralysis by analysis" is known[131] to cause contract administrators to fail to undertake reasonable and logical assessments. Measures such as updating the master programme and monitoring progress that could help in producing as-built programmes to assist in analysis of the effect of concurrent delay. However, such as-built programmes can sometimes not be used throughout the course of a project. Unfortunately, one one hand, a comparison between as-planned and as-built schedules cannot be used to identify concurrency either as whilst such analysis is useful to indicate the end point of a programme, it does not show the process which led to this point[132]. On the other hand, if concurrent delay exists, it has been reported that the contract administrator generally reviews the as-built programme data to establish effect on progress[133]. This cannot be true for the NEC standard form as it prescribes an as-planned approach to assessments by the *Contractor* and *Project Manager*, as discussed in Chapter 4.0.

Where the parties follow the contractual mechanism for assessing delay there will be little concern as to the debate between prospective and retrospective approaches[134]. As we will see in Chapter 4.0, contracts such as NEC clearly impose the prospective methodology, which may differ depending on whether the assessment is of period of delay or monetary terms. However, prospective analysis often leads to results that are "totally divorced from reality"[135].

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[131] Keane, P. John; Caletka, Anthony F ; Keane, P J. *Delay Analysis in Construction Contracts*, (2015), John Wiley & Sons, p.197

[132] Carnell, N.J., *Causation and Delay in Construction Disputes*, (2005) 2nd ed. Blackwell p. 228

[133] Keane, P. John ; Caletka, Anthony F ; Keane, P J. *Delay Analysis in Construction Contracts*, (2015) John Wiley & Sons, p.197

[134] FTI Consulting. 'The Crystal Ball or The Microscope? Deciding on a prospective or retrospective approach to delay analysis. '[Online] https://ftiinsights.com/wp-content/uploads/2018/08/The-crystal-ball-or-the-microscope.pdf

[135] David Gainsbury, D., 'Is Delay Analysis Becoming Too Complex for Its Own Good?' (2020) [Online] https://www.hka.com/wp-content/uploads/2020/04/IS-DELAY-ANALYSIS-BECOMING-TOO-COMPLEX-FOR-ITS-OWN-GOOD.pdf

Additionally, Cummins[136] criticised prospective methods and described them as *impressionistic* and likely to fail in proving which events caused delay to completion. This view was endorsed in *John Barker Construction Ltd v London Portman Hotel Ltd*[137], where it was held that a logical analysis is necessary for delay claims to be assessed and that *impressionistic* analyses should be avoided.

In support of retrospective methods, it has been indicated by the judiciary that *extensions of time must be granted on the best evidence available*.[138] If extension of time, or loss and expense for disruption are not agreed, then, at the end of the contract, once the full extent of the delay is known, an analysis of the planned against the actual events will provide, what Cummins considers[139], the most accurate evidence. Furthermore, there has been other clear commentary on the matter:

"[…] the effects of concurrency can only be properly determined using methods that rely on as-built and progress records".[140]

Indeed, the SCL Protocol also maintains a clear preference that, wherever possible, the parties should avoid a *wait and see* approach to assessing the time impact of delays. The case of *Fluor v Shanghai Zhenhua Heavy Industry Co*[141] considered whether a prospective or retrospective approach to delay analysis is preferred. The EPC contract in this case recommended a prospective approach, which aligns with the SCL's suggestion. This imposes assessment of delays as they occur. It should be noted that the SCL Protocol also recommends "a common sense perspective"[142], regardless of the method of analysis used.

[136] Cummins C. 'SCL Delay and Disruption Protocol: A curate's egg' (2003) Law Now: Online Information. www.law-now.com
[137] (1997) 83 BLR 31
[138] *Blackhawk Heating & Plumbing Co* (1975), quoted by Bunn, D., 'NEC Post-Completion Delay Analysis: Prospective Vs Retrospective' (2019), [Online]
[139] Cummins C. 'SCL Delay and Disruption Protocol: A Curate's egg' (2003) Law Now, [Online]
[140] Baldwin, A., and Bordoli ,D. *Handbook for Construction Planning and Scheduling*, (2014) John Wiley & Sons, p.292
[141] (2018) EWHC 1
[142] SCL Delay and Disruption Protocol, 2nd Edition, P. 6

3.4 Summary of Chapter 3.0

Chapter 3.0 concerned the presence of concurrent delay clauses in standard forms of contract generally and the available methods of delay assessment. The prospective application of a first-in-line approach to delay assessment was preferred, although any analysis must be underlined by common sense, which may mean retrospective review of events to establish the facts.

CHAPTER 4.0: DISCUSSION - DOES CONCURRENCY (NOT) EXIST UNDER NEC4 SUITE OF CONTRACTS?

4.1 Introduction to Chapter 4.0

Chapter 4.0 will present the key features in relation to time and assessment of delays stipulated by the NEC4 suite of contracts. In addition, the proposed alternative dispute resolution procedure of adjudication in the contract will be analysed in the context of concurrent delays. In NEC4, the employer is defined as the *Client*, the following Chapter will respect that, including all other terminology, stipulated by the contract.

4.2 The Accepted Programme

The underlying principle of NEC is for the projects to be proactively managed in real-time and problems are resolved as they occur. The time provisions are no exception. One of the most important management tools under NEC4 is the Accepted Programme as defined at clause 11.2 (1):

"[…] the programme identified in the Contract Data or is the latest programme accepted by the Project Manager. The latest programme accepted by the Project Manager supersedes previous Accepted Programmes."

Clause 31.2 lists the requirements for producing a programme under NEC3. NEC3 does not require the critical path to be shown on the programme for acceptance[143]. There are reasons allowing the *Project Manager* to reject a programme, as stipulated Clause 31.3. Clauses 32.1 and 32.2 indicate methodology for revising the programme. The revised programme must show actual progress made, leading to the NEC4 programme being a "live" management tool. Clause 63 defines how compensation events are assessed – the delay of each compensation event is assessed based on its impact on the planned completion date of the programme accepted at the time of requesting a quotation.

The reasons for not accepting the programme, such as it is representing unrealistic or unpracticable plans is criticised as being highly subjective[144]. The subjective assessment of entitlement will lead to no clear separation of cause and effect.

[143] Gould, N. 'NEC3 Contracts: Programming, Project Management, and Pricing – Have you They stood the test of time? (2015) SCL D177.p. 28

[144] Maclean E., 'The Programme under NEC3: The Unacceptable Truth' (2014) [Online]

Once accepted, the programme becomes the "contract programme" and is used as a baseline[145], including for the purpose of assessing impact on programme arising from employer risk events (compensation events).

Sanctions are stipulated in NEC4[146] if the *Contractor* does not produce or revise a programme, as listed by Evans[147]: clause 50.5 (withholding payment), clauses 60.1 (2) and (3) (lack of entitlement to compensation events) and clause 63.5 (lack of entitlement to make assessment of a delay arising due to a compensation event).

Prevention is covered under clause 19, which concerns both events which prevent the *Contractor* from completing the whole of the *works* or prevent it from doing so by the completion date shown on the Accepted Programme. The associated compensation event is covered by clause 60.1(19). This clause may be considered of similar effect as a *force majeure* provision as the clause further defines such events as those that "neither Party could prevent". Does concurrent delay qualify? Perhaps. Clearly, both the *Client* and the *Contractor* will have control over their own delays and would be able to prevent or control those. However, will not be able to prevent the effects of their delays happening at the same time, unless as discussed earlier in this Chapter, the delays were not *timed* purposefully. Due to the limitations of this dissertation, this issue will not be explored further, but the author recommends further research is undertaken on the topic.

Additionally, we saw in Chapter 2.0 that there is an alternative definition of concurrency, the events to happen in the same measurement period. This will mean two or more compensation events and contractor-culpable delays to happen in the same period so that the same Accepted Programme is impacted. However, the *Contractor* will not assess its own delays in the manner it assesses compensation events, therefore, it is unlikely that this will give rise to concurrency. The author disproves of this alternative, for application to NEC4.

[145] Hide, G.. 'Managing a programme under the NEC(ECC) Form of Contract'. Proceedings of the Institution of Civil Engineers Management, Procurement and Law 163 (2010) p.1
[146] Clause references updated to NEC4
[147] Evans, S., *The Contractor's NEC3 ECC Handbook* (2017) Wiley Blackwell. P. 91-92

4.3 Assessment of Compensation Events

The *Contractor*'s quotation in an assessment of a compensation event must include any monetary and delay claim. The latter is demonstrated by an alteration to the Accepted Programme, which must be included in the quotation, as per clause 62.2. From a programme perspective, clause 63.5 of NEC4 states:

"*A delay to the Completion Date is assessed as the length of time that, due to the compensation event, planned Completion is later than planned Completion as shown on the Accepted Programme current at the dividing date."*

This clause ends with two important clarifications – that the assessment should consider any delay caused by the compensation event already in the Accepted Programme and events which have happened between the date of the Accepted Programme was produced and dividing date. The dividing date is the date associated with the compensation event communication by the *Project Manager* or the *Supervisor* (clause 63.1). Consequently, a prospective assessment of the delay is required, as recommended by the SCL Protocol and as we saw in Chapter 3. Interestingly, on the point of perspective assessments required by NEC, in *Northern Ireland Housing Executive v Healthy Buildings (Ireland) Ltd*[148] an asbestos consultant was appointed under an NEC3 Professional Services Contract. Deeny J[149] posed the following rhetorical question:

"[…] why should I shut my eyes and grope in the dark when the material is available to show what work they actually did and how much it cost them?"

Even though this case was decided by the Northern Irish High Court, it is likely that the English courts will follow this principle. Whilst the ethos of NEC generally requires assessments to be based on forecast, once the event has happened, more accurate information would be available to determine loss and expense, and the court will take this into account.

Accordingly, the forecast approach does not seem to be the case with the assessment of changes to the Prices. Clause 63.1 stipulates that the effect of a compensation event is assessed on the actual costs of any work done before the dividing date and forecast cost of the work not yet done, including the resulting Fee. Still, costs associated with extension of time claims would not have been incurred at the time of the instruction or notification was given by the *Project*

[148] [2017] NIQB 43
[149] Ibid

Manager or the *Supervisor*. Therefore, one could argue that the assessment of any prolongation or time-related costs will also be prospective.

Clause 63.8 allows the *Contractor* to include in the assessment of the effect of compensation event risk allowances, which are not listed in the contract as compensation events under clause 60.1 but have "a significant chance of occurring". A question arises as to whether the *Contractor* could take advantage and include his own culpable delays as risk allowances in the revised programme? Such an action will be detrimental to any retrospective, in fact prospective, assessment of concurrent delay. It is often difficult for the *Project Manager* to challenge contractors on risk allowances within the Accepted Programme as the calculation of this risk can only be based on reasonable approach, rather than specific percentage of the works to be done. For example, if the *Contractor* inserts higher risk allowance on an activity, that it is aware is difficult to resource, that means that a) the risk is justified and the *Contractor* has the full right to allow this; and b) any materialisation of reduced resourcing, which would be considered contractor-culpable delay, will already be incorporated in the shown planned completion date.

Any compensation event that will be assessed on this Accepted Programme will be impacting the described activity, including its risk allowance. In this example, both the contractor's activity and the compensation event can be critical, which would mean that the *Client* is likely to cause delay, the effects of which are concurrent with the materialised time risk allowance period. It appears that the extension of time requested by the *Contractor* will include the full delay caused by the *Client* regardless of the effective cause being a contractor's risk. The reason for this is time risk allowance is difficult to assess, challenge and track in the Accepted Programme. The author submits that clause 63.8 will prevent concurrent delay from being assessed in a fair and reasonable manner.

The *Project Manager* may be unable to give the *Contractor* the due extension of time as part of a compensation event assessment if the *Contractor* has not given notice under clause 61.3. The *Contractor* may argue that time has been *set at large*, as noted in Chapter 2 and *Multiplex*, and it is not obliged to deliver

the works by a certain date[150]. The Contractor can use the prevention principle as a defence in these circumstances[151], but this is likely to fail as NEC4, although it does not mention *extension of time* expressly, it has a clause to that effect, that is not ambiguous. The *Malmaison* approach will be preferred over apportionment as prevention principle is displaced, therefore, the *Project Manager* must consider extension of time due.

Additionally, an interesting argument is the new compensation event clause 60.1(21), which features in NEC4. It allows for additional compensation events, to those listed under clause 60.1, to be included in the Contract Data part one. This clause arguably provides an opportunity for the *Client* to apply the principle in *North Midland Building,* discussed in Chapter 2 of this dissertation, and insert a compensation event in the Contract Data for the *Contractor* to not be entitled to extension of time, should there be concurrent delay. Is concurrent delay then a compensation event? Such provision will reverse the effect of the *Malmaison* approach.

A final point on the assessment of compensation events is clause 61.6. This allows the *Project Manager* to state assumptions about a compensation event, on which its assessment will be based on. The *Project Manager* can also notify a correction of such assumption if it proves wrong. This assumption may include the occurrence of concurrent delay.

4.4 Compensation Events in the Accepted Programme – A Game of Hide & Seek for Concurrency

The requirement to include effects of implemented compensation events within the Accepted Programme has been amended in NEC4. The deletion from clause 32.1 has been considered *as a backwards step by the ICE*[152]. Nevertheless, the revised programme must be realistic (clause 31.3), which in turn means that it must include actual progress on ongoing and planned activities (clause 32.1), including implemented compensation events.

[150] Gould, N. 'NEC3 Contracts: Programming, Project Management, and Pricing – Have you They stood the test of time?' (2005) SCL, 177. p.29
[151] Moodley, T., 'NEC4: Breaches by The Employer and a Departure from This Principle Of Fairness', (2018), 5th Edition, [Online]
[152] CMS, 'NEC4: A closer look at the changes in the ECC' (2017)

Notably, the author submits that if the *Contractor*'s plans in the Accepted Programme are to be realistic and practical, then the revised programme should also include any delays caused by contractor's risk events. The second bullet point of clause 32.1 requests the revised programme to include the *Contractor's* plans to deal with delays, however, it does not explicitly request for any delay or disruption to progress caused by the *Contractor* to be incorporated. If the Accepted Programme does not identify contractor's events, then how would the *Adjudicator* be able to assess if the activities are of equal causative potency? The simple answer is that concurrency will be nearly impossible to prove. The author agrees that the removal of clause 32.1 from NEC4 is not a beneficial step, especially with regards to analysis of concurrent delay.

NEC4 Practice Note[153] highlights the situation where a compensation event may already have been included in the Accepted Programme – in this scenario, any delay reflected in the programme needs to be considered when assessing the impact of another compensation event. One could argue that this element of a compensation event could be concurrent with the progress or lack of progress by the *Contractor* in a different area in the Accepted Programme. The assessment of this compensation event is retrospective and concurrent delay can be established.

4.5 Early Warning of Concurrent Delay?

Another feature differentiating the NEC suite of contracts from others is the provision of an early warning system. Clause 15 requires the *Contractor* and the *Project Manager* to notify the other if they become aware of an event that could increase the Prices, delay the programme or meeting a Key Date or impair the performance of the *works in use.* This notification is then inserted into an Early Warning Register by the *Project Manager* and either party can instruct the other to attend an early warning meeting[154]. Would a Contractor notify the *Project Manager* or vice versa via an early warning, if either of the parties becomes *aware* that there may be concurrency of delays, that *could* delay Completion? The answer to this will be practically, yes but in reality - no. Each

[153] NEC4 ECC Practice Note, section 1.1 [Online]
[154] Clause 15.2

party has oversight of their own culpable delays and for those familiar with the detail of the project, it is not, the author suggests, always necessary to undertake a full programme analysis to foresee the effects of two events happening at the same time. In practical terms, that should be a matter raised on an early warning, as it may impact Completion. The other side of the coin is when the *Contractor* raises an early warning that there is a risk of it causing delay itself, the *Client* may take advantage of this and willingly *match* the effects of an instruction of additional works with the already highlighted delay by the *Contractor.* Accordingly, the apportionment under *City Inn*, referred to in Chapter 2.0, may[155] serve as a precaution for employers who attempt at timing the risk events/variations to happen simultaneously with a contractor's risk event, as described. Either way, this course of action will be a breach of clause 10.2. One could argue that the early warning provisions under NEC4 could be a practical way of reducing and mitigating the risk of concurrent delay, however, in practice there will be limited use of this due to the opposing commercial interests of the parties, save for clause 10.2.

4.6 The Adjudication Factor: Before and After

Section 108(2) of the Housing Grants, Construction and Regeneration Act 1996 (hereinafter, the Construction Act) requires all construction contracts to provide for adjudication. Clauses W1 (when Construction Act does not apply) and W2 (when the Construction Act applies) provide that any dispute arising under, or in connection with, the *Contractor* should be referred to an *Adjudicator* for a decision if it is not resolved by the *Senior Representatives*. The fact that only the Employer can refer to adjudication disputes relating to assessment of compensation events that are treated as accepted has been found[156] as a *strange* provision due to the fact the *Client* should be held responsible for the actions of the *Project Manager*. The *Adjudicator* can change a matter which has been accepted, which may include an implemented compensation event (clause W2.3(4)). To illustrate, in *WSP*

[155] Cheung, M., 'Construction Law in 2018: A Review of Key Legal and Industry Developments', (2018) Informa Law. P.16

[156] Evans, S. C. *The Contractor's NEC3 ECC Handbook* (2017) Wiley Blackwell. P.189

Cel v Dalkia Utilities Services Plc[157], which considered adjudication procedures under NEC, Ramsey J reached the obvious conclusion that:

"The philosophy of the NEC condition is to avoid disputes at the end of the project by having intensive project management machinery to deal with issues during the process of a project."[158]

This suggests that the intention of NEC is to maintain the prospective approach to delay analysis during the project. Unsurprisingly, *Keating*[159] states:

"[...]in cases where the contract clearly requires a prospective approach during the progress of the works, where there is no provision permitting a retrospective post completion review of entitlement […], it is possible that such a dispute should be resolved upon the basis of a wholly prospective analysis."

However, to make the adjudication procedure compliant, adjudicators take initiative to ascertain the facts. The readability and validity of prospective evidence instead, for an adjudicator to make an extension of time decision has been questioned[160]. Additionally, as discussed in Chapter 3.0, such forecast is considered *impressionistic* by case law and commentators. The further difficulty is the short timescales imposed by the adjudication process, that necessitate general assessments, made on limited details[161].

One could therefore argue that ascertaining the facts entails a retrospective analysis of the dispute between the parties. As-built programme data is utilised to undertake an assessment[162]. It is worth noting that if contractors are not maintaining accurate information on the progress and changes, regardless of who is responsible for change, analysis is generally flawed[163]. As we saw in Chapter 3, progress records are generally required to establish concurrent delay. This is supported by the SCL Protocol, which states that the updated programme (or Accepted Programme in NEC4 terms) should be the tool for assessing the extension of time due, but it should be used with any

[157] [2012] EWHC 2428 (TCC)
[158] Ibid. [para 86]
[159] Furst, S. and Ramsey, V., *Keating on Construction Contracts*, (2016), 10th ed, Sweet & Maxwell.
[160] Gorse, C A, Ellis, R and Hudson-Tyreman, 'A Prospective Delay Aalysis and Adjudication', (2005), Association of Researchers in Construction Management, Vol. 2, 1133-41.
[161] Bradley, S. 'Are global claims more acceptable?', (2001), Construction Law, 12 (5), 6-7
[162] RICS Guidance Note. 'Extensions of Time' (2015) 1st Edition. p.16
[163] Hulett, D. T. 'Schedule risk analysis simplified: Critical path method scheduling – Some important reservations', (2003) [Online]

contemporary factual material to support the programme delay. However, the NEC contract does not require records to be kept by the Contractor throughout the project, which may impact the accuracy and outcome of analysis by the adjudicator. In comparison, FIDIC[164] requires contemporary records for claims substantiation, both by employers and contractors. This provision was considered in *Attorney General for the Falklands Islands v Gordon Forbes Construction Limited*[165], where the timing of records was clarified as contemporary *at or about the time giving rise to a claim.*

One could argue that clauses W1 and W2 amount to provisions that permit, and in fact encourage, a retrospective review of disputes, however, only enabled by the trigger of an alternative dispute resolution method. In this manner, it is likely for concurrent delay to exist and be established under NEC4 as it will be possible to identify the effective causes of delay and conclude on whether the effects have happened at the same time.

4.7 Summary of Chapter 4.0

This Chapter reviewed the change, extension of time and adjudication provisions under NEC4, with observations in relation to how concurrency can appear in this suite of contracts. It transpires that during the normal course of administering an NEC4 contract, it may indeed be impossible to establish concurrency. During adjudication, however, where the analysis is retrospective, the position is different. The accuracy of analysis might be flawed, though, due to the missing requirement to keep contemporary records under NEC.

[164] Sub-clause 20.1
[165] (2003) 6 BLR 280

CHAPTER 5.0: CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

This Chapter presents the conclusion of this research. The purpose of this study was to firstly, define concurrent delay as a practically existing concept; secondly, identify the common law position in England on concurrency; thirdly, review methods of analysing concurrency and provide an overview of how this is stipulated in commonly used standard forms such as JCT and FIDIC; and finally, assess the extent to which the NEC suite of contracts could deal with this contentious issue.

Ironically, it transpires that standard forms of contract such as JCT, FIDIC and NEC, widely used in England and internationally, do not incorporate provisions to deal with one of the most contentious, complex, and common legal issues in the construction industry, that of concurrent delay, as concluded in Chapter 3.0. Instead, extension of time provisions generally allocate responsibility for delays where there is a single cause of the delay, generally employer-culpable. Such provisions achieve a displacement of the prevention principle, although the application of this concept to concurrent delay has not been fully concluded, as discussed in Chapter 2.0.

Standard form provisions may work in addressing concurrency, however, are limited in effectiveness as each form imposes a different method of assessing the impact of employers' risk events. Based on the implemented construction delay analysis technique, the outcome of whether concurrent delay exists or not will be different. The fact that standard forms do not generally include concurrent delay clauses has led to the use of bespoke provisions by the parties, coupled with the described in Chapter 2.0 complex legal concept of concurrency, can lead to uncertainty. English common law has equally not provided consistent authoritative guidance on addressing concurrent delay claims either. Unpredictability in application of seemingly established principles such as the prevention principle and the *Malmaison* approach is notable.

Apportionment of loss between the parties is not currently permitted under English law, however, it is the approach taken by the Scottish courts and other jurisdictions and is not unreasonable. As English law generally rejects the dominant cause test and relies on causative potency of the delay effects, it may

be sensible for the fair apportionment approach as per *City Inn* to be considered. This proposition will not impact the underlying theme of common sense in assessing compensation for concurrent delay. It is yet to be seen if the English judiciary will consider this the fair allocation of responsibilities to each party to a construction contract or, instead, because of the complex nature of concurrent delay and common lack of understanding of what it means, it will simply remain easier to continue to adopt the *Malmaison* view.

If parties to a construction project have not clearly expressed their intentions as to how concurrent delay, associated entitlement of extensions of time and prolongation costs in such situations will be dealt with, then the final decision would be left to the judiciary, and this brings with it uncertainty: an expensive and reputationally damaging place to be for the parties to construction projects.

NEC4 does not specifically cover concurrency except the situation where the compensation event has already been shown on the Accepted Programme. However, the adjudication provision under NEC4 allows for a different perspective to be implemented. Adjudicators are not bound by the contract administration procedures of NEC4 and the required prospective analysis of delay assessments. The controversy is that for *Project Managers*, concurrency does not exist under NEC, however, for the *Adjudicator* concurrent delay may well be established under this form of contract. The tension is between the assessment at the time of the event and during the project, versus the evaluation as part of an alternative dispute resolution procedure. Still, keeping of progress records by the parties is required to enable the establishment of effective cause of delay and conclude concurrency of when the effects are felt.

5.2 Recommendations

Further to this research, the author proposes the following recommendations that will simplify and improve concurrency matters under the NEC4 contract:

- Contract drafters of commonly used standard forms such as NEC4 should make a conclusion about the workable definition of concurrency and perhaps include it as a provision, so that neither party can take advantage of the complex concept, that nobody appears to believe exists, yet it is often referred to and used as a defence.
- Contract drafters of NEC4 should review all the available options for dealing with concurrent delay, even outside of the English jurisdiction,

and consider incorporating a version of the apportionment approach by a review of the causative potency of each event.

- NEC4 drafters could also consider adding a provision that requires both the *Client* and *Contractor* to keep contemporaneous records of progress throughout the project. This does not need to change the prospective methodology, however, will assist in the accuracy of analysis during an alternative dispute resolution procedure.
- Parties should not amend themselves the current version of the standard NEC4 contract to include a concurrency clause as whilst it is likely courts will consider it valid, it will create uncertainty due to the ethos of NEC for assessments to be undertaken in a prospective manner.

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