

Eichleay Damages and Delay Claims - Who Has the Burden of Proving Delay and How Do They Prove It?

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EICHLEAY DAMAGES AND DELAY CLAIMS

Reference Materials

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WHO HAS THE BURDEN OF PROVING DELAY AND HOW DO THEY PROVE IT?

The issue of delay is consistently present in construction cases. Typically, each side produces an expert at trial to present its view of who delayed the project and what the impacts of that delay were. This section of your materials examines case law regarding who has the burden of proof on the issue of delay and how that burden of proof can be met.

The case of *PCL Construction Services, Inc. v. United States*, 47 Fed. Cl. 745 (2000) details who has the burden of proof with regard to delay and how that burden of proof can be met. In *PCL Construction Services*, the contractor contracted with the government to construct a Visitor Center and parking structure at Hoover Dam on the Nevada side of the Colorado River. The contractor was delayed for 27 months in completion due to extensive changed conditions, which the contractor claimed was entirely the government's responsibility. The contractor contended that the government breached the contract by delaying the contractor's performance. Regarding the contractor's burden of proof for showing delay, the court stated:

PCL has never submitted a detailed delay/impact claim to the court. PCL has argued that a delay analysis of this project is either unnecessary, impossible, or not relevant, but that the government-caused delays are part of their claims of "severely defective" drawings, cardinal change, hindrance, and breach of contract. The government has a duty not to act in a way that will hinder or delay the contractor's performance. *Malone v. United States*, 849 F.2d 1441, 1445 (Fed. Cir. 1988); *SMS Data Prods. Group, Inc. v. United States*, 17 Cl. Ct. 1, 6 (1989) ("The Government has an implied obligation to refrain from willfully or negligently interfering with a contractor's performance."). In order for the government to be found liable for hindrance, however, a plaintiff must demonstrate that the government caused the plaintiff a compensable injury. See *Servidone Constr. Corp. v. United States*, 931 F.2d at 861; *Boyajian v. United States*, 191 Ct. Cl. 233, 239-47, 423 F.2d 1231, 1235 (1970). The government cannot be held liable for breach of contract, or any other related or unrelated cause of action that relies upon "severe defects" in the contract drawings, cardinal changes to the contract, or government hindrance of performance, unless and until PCL proves that

the alleged defects, changes, or hindrance had an impeding effect upon PCL's construction operation. PCL failed to offer such proof at trial.

In order to recover for an alleged compensable delay, whether or not the delay is caused by hindrance, a contractor must demonstrate: (1) the extent of the delay with a reasonable degree of accuracy; (2) that the delay proximately was caused solely by the government's actions; and (3) that the delay caused specific, quantifiable injury to the contractor. See *Servidone Constr. Corp. v. United States*, 931 F.2d at 861; see also *William F. Klingensmith, Inc. v. United States*, 731 F.2d 805, 809 (Fed. Cir. 1984); *Blinderman Constr. Co. v. United States*, 695 F.2d 552, 559 (Fed. Cir. 1982). The burden of establishing these factors falls squarely upon the contractor. *William F. Klingensmith, Inc. v. United States*, 731 F.2d at 809; *Avedon Corp. v. United States*, 15 Cl. Ct. 648, 653 (1988). Moreover, “only if the delay was caused solely by the government will the contractor be entitled to both an extension of time within which to perform, and recovery of excess costs associated with delay.” *Weaver-Bailey Contractors, Inc. v. United States*, 19 Cl. Ct. 474, 476 (1990) (emphasis in original) (citing *William F. Klingensmith, Inc. v. United States*, 731 F.2d at 809), *recons. denied*, 20 Cl. Ct. 158 (1990); *G.M. Shupe, Inc. v. United States*, 5 Cl. Ct. 662, 700 (1984); see also *Blinderman Constr. Co. v. United States*, 695 F.2d at 559. The contractor must show that the government was the “sole proximate cause” of the delay and that no concurrent cause would have equally delayed the contract, regardless of the government's action or inaction. *Merritt-Chapman & Scott Corp. v. United States*, 208 Cl. Ct. 639, 650, 528 F.2d 1392, 1397–98; *Avedon Corp. v. United States*, 15 Cl. Ct. at 653, 659 (recovery denied “because concurrent delays rendered the [government-caused] delay...irrelevant”). Moreover, “the court [will] award delay damages only for the unreasonable portion of a government-caused delay.” *Mega Constr. Co., Inc. v. United States*, 29 Fed. Cl. 396, 425 (1993) (quoting *Wilner v. United States*, 26 Cl. Ct. 260, 263 (1992), *rev'd on other grounds*, 24 F.3d 1397 (Fed. Cir. 1994) (en banc)).

If both parties contribute to a delay, neither can recover damages from the other, “unless there is in the proof a clear apportionment of the delay and expense attributable to each party.” *William F. Klingensmith, Inc. v. United States*, 731 F.2d at 809 (quoting *Blinderman Constr. Co. v. United States*, 695 F.2d at 559).

One established way to document delay is through the use of Critical Path Method (CPM) schedules and an analysis of the effects, if any, of government-caused events upon the critical path of the project. However, in order to properly demonstrate delay to a project, the CPM schedule must be kept current to reflect any delays as they occur. *Fortec Constructors v. United States*, 8 Cl. Ct. 490, 505 (1985), *aff'd*, 804 F.2d 141 (Fed. Cir. 1986). “The required nexus between the government delay and a contractor's failure to complete performance at some unspecified earlier date cannot be shown merely by hypothetical, after-the-fact projection.” *Interstate Gen. Gov't Contractors, Inc. v. West*, 12 F.3d 1053, 1060 (Fed. Cir. 1993). Part of understanding that an activity belongs on the critical path of a project is also an understanding of how

that activity affects the other activities. *Wilner v. United States*, 26 Cl. Ct. at 262–63; see *Mega Constr. Co., Inc. v. United States*, 29 Fed. Cl. at 424. PCL never provided USBR or this court with a critical path analysis of the alleged government-caused hindrance and its effect upon the critical path of this project. Indeed, PCL appears never to have prepared, and certainly never to have offered, a legitimate critical path analysis, and has even chosen to reject and to ignore the “summary-level delay analysis” by Peterson Consulting that it did have prepared. “A general statement that disruption or impact occurred, absent any showing through use of updated CPM schedules, logs or credible and specific data or testimony, will not suffice to meet the plaintiff’s burden.” *Preston-Brady, Co., Inc.*, 1987 VA BCA LEXIS 86, V.A.B.C.A. Nos. 1892, 1991, 2555, 87-1 B.C.A. (CCH) P19, 649 at 99,520 (1987).

The court concluded as follows:

The sum, PCL did not demonstrate that its project delay was caused exclusively or even predominantly by the government, nor did PCL distinguish between government and contractor caused delay. In the absence of this proof, USBR cannot be held liable for delay/impact costs, for “hindering” PCL, and therefore for “breach of contract” related to PCL’s additional time performing the project.

A follow-up opinion was issued by the court in *PCL Construction Services, Inc. v. United States*, 53 Fed. Cl. 479 (2002), in which the court considered two issues: (1) the contractor’s entitlement to amounts retained by the government as liquidated damages for delay in completion and (2) the contractor’s entitlement for amounts retained by the government for uncompleted punch list items.

Regarding the issue of the government’s right to retain liquidated damages, the court noted that there were essentially two lines of appellate authority as to whether liquidated damages for delay could be apportioned. The court first noted the basic proposition, enunciated in *Sauer, Inc. v. Danzig*, 224 F.3d 1340 (Fed. Cir. 2000), that the party asserting that liquidated damages were improperly assessed bears the burden of showing the extent of the excusable delay to which it is entitled.

The court further noted that in *Central Ohio Building Co.*, PSBCA No. 2742, 1991 PSBCA LEXIS 46, 92-1 B.C.A. (CCH) ¶24,399, the Postal Service Board of Contract Appeals held that with regard to a liquidated damages claim, the government has the ultimate burden of persuasion as well as the initial burden of showing that the contract was not completed by the agreed contract completion date and that liquidated damages were due and owing. The court stated that the government may meet this initial burden by demonstrating that the performance requirements were not substantially completed by the completion date set forth in the contract and that the period for which the liquidated damages assessment was made was proper. Once the government satisfies its initial burden, the burden shifts to the contractor to show that any delays were excusable and that it should be relieved of all or part of the assessment.

Thus, the general rule expressed in both *Sauer* and *Central Ohio Building Co.* is that once the government has met its initial burden of going forward, in order to be relieved of all or part of the liquidated damages assessed the contractor must prove excusable delays. However, that rule has not been applied when the government has contributed to the delay and completion of the contract. The court noted that in the case of *United States v. United Engineering & Construction Co.*, 234 U.S. 236 (1914), the U.S. Supreme Court held that to enforce a liquidated damages clause, the government must not have prevented the performance of the contract within the

stipulated time, and that when the government delays contractor and contract performance “the rule of the original contract cannot be insisted upon and liquidated damages measured thereby are waived.”

Likewise in *Acme Process Equipment v. United States*, 172 Ct. Cl. 324, 347 F.2d 509 (1965), *rev'd on other grounds*, 385 U.S. 138, 17 L. Ed. 2d 249, 87 S. Ct. 350 (1966), *reh'g denied*, 385 U.S. 1032, 17 L. Ed. 2d 680, 87 S. Ct. 738 (1967), the U.S. Court of Claims specifically addressed the situation in which the government attempts to recover liquidated damages where concurrent delay occurred during the performance of the contract. The court held that when delays are caused by both parties to the contract, the court will not attempt to apportion them but will simply hold that the contract provisions regarding liquidated damages are annulled.

The *PCL* court went on to note that some courts and boards of contract appeals have criticized the rule in the *Acme Process* case, which is commonly known as the “rule against apportionment.” Rephrased, the “rule against apportionment” is that the liquidated damages clause will not be enforced and there will be no apportionment of delay as long as there is delay attributable to both the government (owner) and the contractor. The court further noted in *E.C. Ernst, Inc. v. Manhattan Construction Co.*, 551 F.2d 1026, 1038–39 (5th Cir.), *modified*, 559 F.2d 268 (5th Cir. 1977), *cert. denied*, 434 U.S. 1067 (1978), and *In re Santa Fe, Inc.*, VABCA No. 1943, 1984 VABCA LEXIS 87, 84–2 V.C.A. (CCH) ¶17,341, that some courts and boards have apportioned the concurrent delay in assessing liquidated damages.

In *E.C. Ernst*, the U.S. Court of Appeal for the Fifth Circuit permitted apportionment of fault in assessing liquidated damages where there is concurrent delay and stated that the opposing rule (the rule against apportionment) is an old one, whose underlying policies do not remain in full force. Judicial hostility to the use of privately agreed upon contract damages remedies (a liquidated damages provision) is one of the dominant reasons underlying the old rule against apportionment. While the agreement (liquidated damages provision) is not a penalty, it is nevertheless unjust in its nature because the party claiming the right to enforce the provision has, in part, been the cause of delay. The *E.C. Ernst* case noted that today, given the increasing complexity of contractual relationships, liquidated damages provisions have obtained full firm judicial and legislative support. The *E.C. Ernst* court also noted that if the owner's own delay is not incurred in bad faith, it is not unjust to allow proportional fault to govern recovery. Lastly, the *E.C. Ernst* court noted that while proving apportionment is a difficult task, recovery should not be barred in every case by a rule of law that precludes an examination of the evidence.

Thus, the *PCL* court acknowledged that the rule against apportionment in the U.S. Court of Appeal for the Federal Circuit is unsettled. As previously mentioned, in the *Acme Process* case the Court of Claims followed the rule against apportionment. In *Sauer*, decided after *Acme Process*, the Federal Circuit upheld a decision from the Armed Services Board of Contract Appeals (the Board) that apportioned delay for the purpose of assessing liquidated damages. In *Sauer*, both *Sauer* (the contractor) and the government presented critical path management experts and each party argued that the other was partly responsible for the delay. The Board found that *Sauer* only was entitled to an additional contract extension of two days, and therefore the Board granted a commensurate remission of liquidated damages.

Next, the *PCL* opinion noted that a party asserting improper assessment of liquidated damages bears the burden of showing the extent of the excusable delay to which it is entitled. The court further noted that in prior decisions, where the government's fault for delays has been established, the court will not apply the rule against apportionment if there is a clear apportionment of the delay and expense attributable to each party. The *PCL* court noted that unlike the rule against apportionment, which annuls liquidated damages provisions in concurrent delay situations, the *Sauer* court awarded the government liquidated damages for delay even

though delay by the government had been found on the contract. The rule of apportionment would apply only where there is a clear apportionment of delay and the expenses attributable to each party.

The *PCL* court, however, found that under analysis of either the “rule against apportionment” or the “clear apportionment rule” the government was not entitled to liquidated damage. The court noted that under the rule against apportionment, the court must annul a liquidated damages contract clause and reject the government's claim for liquidated damages because there was evidence of delay by the government, which the government admitted. Specifically, the court held that the government had acknowledged that it had contributed to the delay, and even the government's expert witness admitted that the government had caused some delay.

The court then turned to the contractor's claim. The court looked at the evidence presented by the contractor and found that no clear evidence has been presented from which the court could apportion delay. The court noted that in determining whether there is a clear apportionment of delay, it is useful to recall some of the basic rules of proof regarding delay, and an established way to document delay is through the use of CPM schedules and an analysis of the effects, if any, of government-caused events upon the critical path of the project. As stated before, to properly demonstrate delay to a project, the CPM schedule must be kept current to reflect delays as they occur, and the required nexus between government delay and a contractor's failure to complete performance by the contract completion date cannot be shown by mere “hypothetical after the fact projection.” A general statement that disruption or impact occurred absent any showing through the use of updated CPM schedules, logs, or credible and specific data or testimony will not be sufficient to meet the contractor's burden of proof.

The *PCL* court concluded that neither the contractor nor the government had submitted evidence relating with sufficient credibility as to how the changes and delays affected other activities on the project, and therefore the court did not have adequate evidence to clearly apportion the delay. The court concluded that the project completion was delayed, but since the contractor had not presented adequate proof to apportion the delay, the court could not apportion the delay and therefore held that the government was not entitled to liquidated damages under either the clear apportionment rule or the rule against apportionment.

With regard to the right of the government to retain funds for uncompleted punch list items, the *PCL* court noted that the government had presented no evidence of the cost of the uncompleted work that it claimed the contractor failed to perform. The court noted that the government bore the burden of proof with regard to that issue, and since it had not met that burden, the government had no right to withhold funds from the contractor for uncompleted punch list work. The court concluded:

For the foregoing reasons, the court finds that the plaintiff is entitled to all monies retained by the government. With regard to liquidated damages, under the rule against apportionment, the government's delay of the project results in the annulment of the liquidated damage provisions. In the alternative, under the clear apportionment rule, the court likewise denies the government's assessment of liquidated damages because no clear apportionment of the delay that occurred on the project has been established in the record. With regard to the amounts retained by the government for any failure by the contractor to complete work on the contract, the government has not provided any basis for the amount of the adjustment and, therefore, the defendant has failed to meet its burden of proof in this regard.

53 Fed. Cl. at 493.

As can be seen from this decision, both the owner and the contractor failed to prove the other's delay utilizing CPM analysis, which doomed their respective damages claims.

CPM ANALYSIS SHOULD BE BASED ON REAL, CONTEMPORANEOUS DATA, NOT AFTER-THE-FACT AND THEORETICAL

Courts and boards of contract appeals have shown a strong preference for the use of CPM scheduling techniques in the proof and defense of delay claims, and have criticized the use of bar chart schedules. For example, in *Minmar Builders, Inc.*,¹ the General Services Board of Contract Appeals (GSBCA) stated:

[T]wo of the contractor's construction schedules were ... nothing ... more than a bar chart showing the duration and projected calendar dates for the performance of the contractual tasks. Since no interrelationship was shown as between the tasks, the chart cannot show that project activities were dependent on prior performance ... much less whether overall project completion was thereby affected.²

In *Wilner v. United States*,³ the Court of Claims stated:

Plaintiff's position ... is that the critical path was always in the building. Plaintiff ... failed to diagram these delay episodes or otherwise to depict the precise route of the path. Plaintiff thoroughly described each item of delay, but did not present evidence concerning an overall review of the critical path he sponsored. Undoubtedly, plaintiff does have a position regarding the proper course of the critical path. Unfortunately, he failed to supply a critical path analysis, and the Court is not obligated to attempt to construct one for him. Due to the absence of plaintiff's view of the critical path, the Court cannot assign weight to any concept of the critical path as propounded by the plaintiff.⁴

In *Al Johnson Construction Co. v. United States*,⁷ the United States Court of Appeal described CPM scheduling as "a favorite device with present day fact finders in contract disputes."

CPM scheduling is just as important in job management and administration as it is in claims

¹GSBCA No. 3430, 72-2 B.C.A. (CCH) ¶9599. *See also* R.W. Contracting, Inc., ASBCA No. 24627, 84-2 B.C.A. (CCH) ¶17,302; Haas & Haynie Corp., GSBCA Nos. 5530, 6224, 6638, 6919, 6920, 84-2 B.C.A. (CCH) ¶17,446, at 86,800, wherein the Board stated: "We simply do not understand the contractor's reason for abandoning its CPM. A CPM schedule is never rigid. It has built-in flexibility to permit graphic recognition of changes so they can be managed."

²72-2 B.C.A. (CCH) ¶9599, at 44,857.

³23 Cl. Ct. 241 (1991).

⁴23 Cl. Ct. at 255-256. *Cf. with Howard Contracting, Inc. v. G.A. MacDonald Construction Co.*, 71 Cal. App. 4th 38 (1998) (the court upheld an award of damages where a contractor's "bar chart schedule was based on a critical path method analysis," and specifically found that the bar chart scheduled "identified the project's critical path and demonstrated that the delays constituted critical path delays).

⁷854 F.2d 467 (Fed. Cir. 1988).

presentation and defense. This was recognized in *Continental Consolidated Corp.*⁸ as follows:

The CPM scheduling technique is one which requires a breakdown of the entire project into individual tasks and an analysis of the number of days required to perform each task. The analysis is then programmed into a computer which produces a chart showing the tasks and a line which controls the completion of the overall work. The line through the modes, the function points for completion of essential tasks, is known as the critical path. In addition, there are numerous side paths for subordinate tasks which normally can be performed without affecting the critical path. However, these subordinate tasks, if improperly scheduled or unduly delayed in performance, can on occasions become critical and thus change the critical path for the entire project.

The critical path method of scheduling requires the logical analysis of all the individual tasks entering into the complete job and the periodic review and re-analysis of progress during the performance period. It is essential that any changes in the work and the time extensions due to the contractor be incorporated into the progress analysis concurrently with the performance of the changes or immediately after the delay and thus integrated into the periodic computer runs to reflect the effect on the critical path. Otherwise the critical path chart produced by the computer will not reflect the current status of work performed or the actual progress being attained.⁹

The CPM schedule must be properly prepared if it is to be accepted by the courts. It must also be used in the field; a completely theoretical schedule developed strictly for the purpose of supporting a claim is much less likely to be accepted. In *Chaney & James Construction*,¹⁰ the Board completely rejected the contractor's CPM schedule, stating:

[T]hese charts cannot be considered evidence of the facts they portray. While we accept the expert's testimony that the charts appear to be technically correct and logical, the work sequence shown was not demonstrated to be the only possible sequence in which the work could have been accomplished; nor was it demonstrated that the sequence presented in the charts was necessarily the best one. The work sequence shown was not used in estimating and bidding the job since the original chart from which the two exhibits were derived was not in existence until late 1962, near the end of the project. Also, as the contractor's project manager admits, the sequence shown on the critical path charts was not followed in performing the contract work.

Under the circumstances the critical path charts cannot be accepted as establishing either the facts they portray or the reasonableness of the contract's assertions as to the influence of specific incidents on work progress.”

⁸ENGBCA No. 2743, 67-2 B.C.A. (CCH) ¶6624 (1967). *See also* Fortec Constructors v. United States, 8 Cl. Ct. 490 (1985); Ballenger Corp., DOTBCA Nos. 74-32, 74-32A, 74-32H, 84-1 B.C.A. (CCH) ¶16,973, at 84,524 (1983).

⁹67-2 B.C.A. (CCH) ¶6624, at 30,715.

¹⁰FAACAP No. 67-18, 66-2 B.C.A. (CCH) ¶6066, at 28,076, 28,077 (1967).

The CPM schedule must be kept up to date and must incorporate delays as they occur. If delays are not concurrently inputted into the computer, the effect upon the critical path and job planning cannot be properly maintained. In *Blinderman Construction Co. v. United States*,¹¹ the Court of Federal Claims stated:

Said contractual provisions acknowledge the principle that accurate, informed assessments of the effect of delays upon critical path activities are possible only if up-to-date CPM schedules are faithfully maintained through out the course of construction. Otherwise, the critical path produced by the computer will not reflect the current status of the work performed or the actual progress being obtained. *Continental Consol. Corp.*, ENGBCA Nos. 2743, 2766, 67-2 (CCH) No. 6624, at 30, 715, 1967 WL 320 (1967) quoted with approval in *Fortec Construction*, 8 Cl.Ct. at 506.

Obviously, then, if the CPM is to be used to evaluate delay on the project, it must be kept current and must reflect delays as they occur. *Fortec Construction*, 8 Cl.Ct. at 505.

Thus, plaintiff has failed to demonstrate how the data used to prepare its CPM scheduling relates, if at all, to actual conditions prevailing on the construction site at the times of the alleged delays.

Like any other computerized aid to comprehension, CPM analysis is only as good as the underlying information upon which it is based. *Bednar, et al. Construction Contracting* 664 (citing *Lane Verdugo* ASBCA No. 16327, 73-2 (CCH) BCA No. 10, 171, 1973 WL 1896 (1973)).¹²

The Court of Federal Claims denied a delay claim because the contractor's bar charts failed to establish the interrelationship between the disrupted tasks and other activities on the schedule's critical path. In *Mega Construction Co. v. United States*,¹³ the U.S. Postal Service awarded a contract to Mega Construction to construct a post office in Canoga Park, California. The contract only required Mega to maintain a "practicable progress chart," Mega was not required to submit a CPM analysis of its proposed progress schedule."

Mega claimed that a variety of government acts and omissions delayed its completion by 272 days. In support of its claim, Mega offered a version of its original as-planned schedule, as well as an as-built schedule, both in bar chart form. Each delay event reflected in the as-built schedule was cross-referenced to documents or statements attributing the delaying event to the government. The Federal Court of Claims emphasized that a contractor must prove that governmental shortcomings interrupted work on the critical path, which the court as that sequence of construction tasks for which there is no timing leeway. The tasks must be performed on schedule, or completion of the entire project will be delayed; the separate tasks are inherently interdependent, as one task cannot commence before the prior task is completed. The court considered Mega's bar chart inadequate, and stated the following:

Plaintiff's bar chart depicted its version of numerous work items. However, it failed to prove that the claimed delays occurred along the critical path, because it does not indicate the interdependence of any one

¹¹39 Fed. Cl. 529 (1997).

¹²39 Fed. Cl. at 585.

¹³29 Fed. Cl. 396 (1993).

or more of the work items. Plaintiff proffered documents prepared solely for use at trial as its estimate of work items that were on the critical path while the project was ongoing, but offered no credible evidence of the interdependence of the project's activities.¹⁴

The court also noted that Mega's bar charts were based in part on documents that had never been introduced into evidence, and Mega's scheduling consultant had relied upon self-serving statements by Mega's officers without attempting to independently verify those representations. As such, the court denied the contractor's delay claim.

The *Mega Construction Co.* case was distinguished in the case of *Howard Contracting, Inc. v. G.A. MacDonald Construction Co.*¹⁵ In the *Howard Contracting* case, the owner contended that the court in *Mega Construction Co.* concluded that a contractor was required to use a computer-generated network diagram schedule known as a critical path method schedule to establish a claim for construction delay damages, and because the contractor in that particular case did not utilize a CPM schedule, they had not proved their delay claim. The court in *Howard Contracting* firstly noted that in a federal government construction project, delays that prolong project activities falling on the critical path may be compensable. The court noted that the *Mega Construction* case held that a contractor's entitlement to delay damages required the presentation of evidence that establishes the critical path of the project and the occurrence of delays along that critical path, and that the contractor's ineffective use of a bar chart at trial failed to identify the critical path or to demonstrate that compensable project delays occurred on that path. The court held that *Mega Construction* does not stand for the proposition that use of a CPM schedule is required to establish the occurrence of compensable project delays, and that, in fact, a contractor is not required to use a CPM schedule to establish critical path delays. The court further noted that the contractor in the *Howard Contracting* case, unlike the contractor in the *Mega Construction* case, used a bar chart schedule that was based on a CPM analysis and identified the project's critical path, and further demonstrated that delays constituted critical path delays; therefore, the contractor had properly proved delay.

Another case illustrating how a contractor's claim can be lost due to inadequate scheduling (even when a CPM is used) is *Appeal of J. W. Bateson Co.*,¹⁶ in which the contractor (Bateson) was employed to construct a physical education center at the United States Naval Academy in Annapolis, Maryland. The project was completed late, and liquidated damages were assessed by the Navy. Bateson filed a claim alleging that defective building design caused a seven-and-one-half month delay and that the project would have been finished ahead of the contract completion date but for these design deficiencies. Bateson also alleged that its costs increased due to labor inefficiency in connection with the concrete work as a direct result of defective specifications.

The specifications required a CPM schedule to ensure adequate planning and execution of the work and to help the contracting officer appraise the reasonableness of the proposed schedule and to evaluate the work. Despite the specifications requiring submission of the CPM schedule 45 days after the Notice of Award, Bateson submitted its CPM schedule six months late. By the time the CPM schedule was submitted, the contractor was already alleging project delays, particularly in connection with shop drawing approval. The CPM schedule also omitted shop drawing submittals. Bateson's project manager testified that he was so busy expediting the project that he put the CPM schedule "on the back burner." Although the specifications called for a maximum of 800 activities in the CPM schedule, Bateson's CPM schedule included 2,000 activities. This original CPM schedule also showed the project being completed one month late. When the Navy

¹⁴29 Fed. Cl. at 428.

¹⁵71 Cal. App. 4th 38 (1999).

¹⁶ASBCA No. 27491, 84-3 B.C.A. (CCH) ¶17,566 (1984).

rejected that, Bateson revised its CPM schedule to show completion within the contract time.

The Board of Contract Appeals found that Bateson's CPM schedule was long and inexcusably delayed. After the CPM schedule was submitted and adjusted at the Navy's request, Bateson found that the CPM schedule had lost its significance as a scheduling instrument, and as a result, the Board found that the contractor had not shown that its CPM schedule ever had, or deserved, status as a credible schedule for use in fulfilling the purposes of the specifications; rather, it had been used primarily to further the contractor's delay claims, which began to emerge at some point during the creation of the CPM documents. The Board stated it would not rely upon the as-planned portions of the CPM schedule and considered only the as-built portions as evidence. In effect, the Board held that where a CPM schedule is used primarily as a claims device rather than to manage the project, it will be entitled to no weight.

Thus, many courts and boards of contract appeals have shown a preference for the use of CPM scheduling techniques in determining disputes regarding delay, but only when CPM scheduling is also used in managing the project.

There are numerous important principles of CPM project scheduling, including that the CPM schedule must be used by the contractor for job management and claims administration. As noted above the schedule must be kept up to date and must incorporate delays as they occur; a completely theoretical schedule developed strictly for the purpose of supporting a claim is much less likely to be accepted. These points are all more fully illustrated by *J. A. Jones Construction Co.*, 97-1 B.C.A. (CCH) ¶28,918 (EBG BCA 1997). In *Jones*, the Board of Contract Appeals denied a contractor's delay claim because the contractor failed to prove that government-ordered "preconditions" to a change in performance, which had been suggested by the contractor, in fact delayed the entire project. A key element in the Board's decision was the fact that the contractor's contemporaneous schedule updates that it kept during the progress of the job did not place the "precondition work" on the critical path. The project was construction of a dam lock, and the contractor was to provide CPM scheduling and to update the schedule monthly during performance. By August 1992, the contractor was 57 days behind its own schedule. The contractor proposed a two-stage flooding program to get the project back on schedule, which was approved in early December 1992, but the government imposed four preconditions which was required for safety reasons.

Two years after the project was completed, the contractor filed a claim for delay damages, contending that the government's imposition of the "precondition work" before allowing the contractor to proceed with his two-stage flooding proposal was unnecessary and delayed the project by 142 days. The contracting officer denied the claim and the contractor appealed. The Board of Contract Appeals affirmed the contracting officer's finding that the contractor had failed to prove a compensable delay. The Board noted that the contractor had to prove three items: (1) specific delays attributable to the contract; (2) which delayed completion of the entire project; and (3) no concurrent delays by the contractor. The Board ruled that the contractor had failed to prove that the government's imposition of the preconditions delayed the project. The Board concluded that the critical path did not run through the precondition work because none of the contemporaneous monthly CPM updates provided by the contractor to the government listed the precondition work as being on the critical path, and thus the contractor had not proved that a critical path activity was affected by the government's preconditions. Likewise, the Board noted that the contractor did not, at the time that the preconditions were imposed, express concern that the precondition work would affect completion of the entire project. Only after the project was completed and the contractor had hired a delay expert to devise a delay claim did the contractor first assert that the precondition work was on the critical path. The Board noted that the discrepancy between the contractor's contemporaneous communications, by virtue of its CPM schedules and the delay assertions two years after completion of the project, in the context of

litigation, was of critical importance. The Board noted that the contractor's CPM schedule was useful for revealing not only what was on the schedule, but also what was left off the critical path. Specifically, the Board stated: "The more a contractor departs in litigation from its contemporaneous prepared schedules, the greater the need to explain and justify the reasons and assumptions underlying such departures to the Board."

The Board noted that the two-stage flooding program, proposed by the contractor, was proposed for the contractor's own benefit, and if the contractor believed that the government's imposition of the preconditions was onerous or would have exacerbated the project's delay, the contractor could have withdrawn its proposal.

BASICS OF CPM SCHEDULING EXPLAINED

Many books and articles have been written describing how CPM scheduling is performed; the following analysis is just a basic overview of those techniques. One can ascertain how a CPM schedule is put together using the example of how one builds a house. The first thing one has to do is prepare the site (grading and excavation). Trenches are then dug for foundations and any underground utilities (plumbing, sewer, electrical, etc.). One then pours the foundation, frames the house, puts on the roof, installs rough electric and plumbing, wraps the exterior, drywalls or plasters the interior, and installs finishes (finish electrical and plumbing, cabinets, flooring, carpeting, painting, etc.).

As logically seen from the foregoing, a CPM schedule must show (1) each of the activities the contractor must perform to construct the project; (2) the durations of those activities, based upon resources (labor and equipment), productivity of the resources, and the estimated quantity of the work; (3) sequencing of those activities in a logical fashion (that is, one can't frame the house before the foundation is poured); and, finally, (4) the interrelationships among all the activities.

Specialized CPM software calculates and computes the "critical path" based on the above data, and depicts the information in the form of a "network diagram" (see *Continental Consolidated Corp.*¹⁷). This is what distinguishes a CPM schedule from a bar chart, which cannot show the interrelationships among the construction activities. Many other technical elements are involved in CPM scheduling, but the foregoing should be sufficient to give the reader a general understanding of the basic elements.

It should be noted here that, as a practical matter, the contractor generally has the obligation to plan, schedule, and coordinate the work.¹⁸ Although some contractors do not involve their subcontractors in preparing the schedules for a project, most subcontracts do require the subcontractor to adhere to the contractor's schedule. The courts have likewise held that there is an implied obligation on the part of subcontractors to follow the instructions of the contractor, so long as the contractor acts in a reasonable fashion.¹⁹ If the subcontractors are involved in creation of the schedule, or are at least put on notice so that they can elect to participate, it will be more difficult for subcontractors to later complain that the schedule was unreasonable, and thus it is to

¹⁷ENGBCA No. 2743, 67-2 B.C.A. (CCH) ¶6624 (1967).

¹⁸Able Elec. Co. v. Vacanti & Randozzo Constr. Co., 212 Neb. 619, 324 N.W. 2d 667 (1982); S. Leo Harmony, Inc. v. Binker Mfg. Co., 597 F. Supp. 1014 (S.D.N.Y. 1984).

¹⁹Peter Kiewit & Sons Co. v. Iowa S. Util. Co., 355 F. Supp. 376 (S.D. Iowa 1973); McCarty Corp. v. Pullman-Kellogg, 571 F. Supp. 1341 (M.D. La. 1983).

the contractor's advantage to involve its subcontractors.²⁰

The contractor's project schedule must be reasonable to the subcontractors, as it relates to duration and sequencing.²¹ During performance of the work, the contractor may allow its subcontractors to perform according to the established schedule, subject to reasonable revisions.²² Even if the owner consents to the change, the contractor may not unreasonably alter the schedule to the detriment of the subcontractors.²³ However, there will always be some variations on most construction projects and subcontractors cannot expect exact compliance with the schedule. The contractor's performance must be "within the bounds of reason" and in general conformance with the project schedule.²⁴

Courts have likewise described CPM scheduling. For example, in *Santa Fe, Inc.*,²⁵ the VABCA described CPM scheduling as:

a management technique by which a project can be broken down into a number of identifiable tasks (activities) and assigned various resources (e.g. time/duration, management cost). These tasks are then sequentially inter-connected, reflecting the various interdependence of the activities to provide an overall schedule to complete the project. The result of this scheduling process is a path(s) through this schedule, which if postponed, will delay the project completion. All other paths through the project schedule can experience some postponement ... without delaying the overall project completion. The amount of postponement which a path of activities can experience without delaying the completion of the project is called "total float." ... The more total float a path of activities has, the longer it can be postponed without delaying project completion.²⁶

In *Fortec Constructors v. United States*,²⁷ the Court of Claims stated:

²⁰United States v. F. D. Rich Co., 439 F.2d 895 (8th Cir. 1971); Kroeger v. Franchise Equities, Inc., 490 Neb. 731, 212 N.W.2d 348 (1973).

²¹United States *ex rel.* Heller Elec. Co. v. William F. Klingensmith, Inc., 670 F.2d 1227 (D.C.Cir. 1982); Able Elec. Co. v. Vacanti & Randozzo Constr., 212 Neb. 619, 324 N.W.2d 667 (1982).

²²Illinois Structural Steel Corp. v. Pathman Constr. Co., 23 Ill. App. 3d 1, 318 N.E.2d 232 (1974).

²³Natkin & Co. v. George A. Fuller Co., 347 F. Supp. 17 (W.D. Mo. 1972) (both owner and contractor were held liable to subcontractor when work had been unreasonably scheduled to benefit owner and contractor, but to detriment of subcontractors).

²⁴Southern Fireproofing v. R.F. Ball Constr. Co., 334 F.2d 122 (8th Cir. 1964).

²⁵VABCA Nos. 1943 et al., 84-2 B.C.A. (CCH) ¶17,341. The VABCA also stated (concerning the use of CPM schedules):

[W]hen properly utilized, CPM allows the owner and subsequent review bodies to determine with greater exactitude whether, and to what extent, a particular change order affects the critical path and hence delays ultimate performance.

84 2 B.C.A. (CCH) ¶17,341, at 84,411.

²⁶*Id.* at 86,405.

²⁷8 Cl. Ct. 490 (1985). In this case, the court rejected the government's CPM analysis because it was not properly updated. The court stated:

The critical path changed from that depicted in the CPM diagram introduced into evidence. The Corps, however, refused to grant timely and adequate time extensions and to authorize revisions to the CPM to

The reason that the determination of the critical path is crucial to the calculation of delay damages is that only construction work on the critical path had an impact upon the time in which the project was completed. If work on the critical path was delayed, then the eventual completion date of the project was delayed. Delay involving work not on the critical path generally had no impact on the eventual completion date of the project.²⁸

Lastly, the Court of Claims also described CPM Scheduling in *Haney v. U.S.* 230 Ct. Cl. 148, 167-68 (1982):

Essentially, the critical path method is an efficient way of organizing and scheduling a complex project which consists of numerous interrelated separate small projects. Each subproject is identified and classified as to the duration and precedence of the work. (E.g., one could not carpet an area until the flooring is down and the flooring cannot be completed until the underlying electrical and telephone conduits are installed.) The data is then analyzed, usually by computer, to determine the most efficient schedule for the entire project. Many subprojects may be performed at any time within a given period without any effect on the completion of the entire project. However, some items of work are given no leeway and must be performed on schedule; otherwise, the entire project will be delayed. These latter items of work are on the "critical path." A delay, or acceleration, of work along the critical path will affect the entire project.

As can be seen from the foregoing, it is almost always necessary to use CPM scheduling techniques to successfully prove delay. Only items on the critical path that are delayed will be considered to have delayed completion of the project.²⁹

In *Appeal of Montgomery-Ross-Fisher, Inc.*,³⁰ the Board, based upon the testimony of expert witnesses for both the government and the contractor, defined *critical path* as follows:

The critical path on a CPM diagram is a line depicting the critical activities necessary to complete a project in the shortest time from the beginning activity to completion of the project. It is the longest continuous path in the network from start to finish of the project.

reflect the changed performance critical path. As a result, it is impossible to determine from the CPM diagram whether a particular activity was critical or non-critical, on schedule or behind schedule.

8 Cl. Ct. at 505. *See also* *Weaver-Baily Contractors, Inc. v. United States*, 19 Cl. Ct. 474, 481-482 (1990).

²⁸8 Cl. Ct. at 505.

²⁹*See* *Blackhawk Heating & Pumping Co., GSBCA No. 2432*, 76-1 B.C.A. (CCH) ¶11,649, wherein the GSBCA stated:

Since liquidated (i.e. delay) damages are only imposed for delays in project completion, it is manifest that only those delays should be considered which actually off-set project completion. By their nature the delayed activities involved must necessarily lie on the critical path as it was actually completed.

76-1 B.C.A. (CCH) ¶11,649 at 55,579.

³⁰PSBCA Nos. 1033, 1096, 84-2 B.C.A. (CCH) ¶17,492 (1984).

Activities on the critical path do not have float or slack time and, theoretically, a delay of a critical path activity should cause a resulting delay in the subsequent critical path activities unless the work is accelerated, assuming the time durations on the schedule are valid.³¹

Citing *United States Fidelity & Guaranty Co. v. Orlando Utilities Commission*,³² the Board in *Montgomery-Ross-Fisher* further stated:

The critical path is the longest series of the work activities through the performance of a whole project. If an activity on the critical path exceeds its scheduled duration, the termination of the project will be delayed unless some other activity on the critical path is performed in less than its scheduled time. A work activity not on the critical path may be completed later than its scheduled time without affecting the termination of the project unless the noncritical activity exceeds its “float” and thereby becomes an activity on the critical path.³³

In *Blinderman Construction Company v. United States*,³⁴ the Court of Federal Claims stated the following:

CPM is a system of project planning, scheduling and control which combines all relevant information into a single master plan, permitting the establishment of the optimum sequence and duration of operation; the interrelation of all efforts required to complete a construction project are shown; an indication is given of the efforts which are critical to timely completion on the project. *Dictionary of Architecture and Construction* at 228. See also *Wilner v. United States*, 23 Ct.Cl. at 244-245 (quoting *Haney v. United States*, 230 Ct. Cl. 148, 167-169, 676 F.2d 584, 595 (1982)).³⁵

The *Montgomery-Ross-Fisher* case, addressed above, also discussed the “contractor's right to finish early” concept (see [§ 4.13](#)). Specifically, the contractor contended that the government had ignored its right to complete its contract performance early, and since it was prevented from doing so because of extra work, it was entitled to additional compensation from the government. In response to this argument, the Board stated:

Appellant argues that respondent ignores its right to complete its contract performance early and that it was prevented from doing so because of the extra work. It is true, as Appellant contends, that where a contractor establishes it would have completed the contract earlier, impact damages may be recovered for changes causing delays preventing early completion although a contract is completed on time. See, e.g., *Schmid v. United States*, 173 Ct. Cl. 302, 351 F.2d 651 (1965); *Gardner Displays Co. v. United States*, 171 Ct. Cl. [*27] 497, 346 F.2d 585 (1965); *Metropolitan Paving Co. v. United States*, 163 Ct. Cl. 420, 325 F.2d 241 (1963); *Owen L. Schwam Constr. Co.*, ASBCA No. 22407, 79-2 BCA ¶13,919.... Absent a contract prohibition, a contractor has a right to

³¹84-2 B.C.A. (CCH) ¶7,492, at 87,120.

³²564 F. Supp. 962, 968 (M.D. Fla. 1983).

³³84-2 B.C.A. (CCH) ¶7,492, at 87,123.

³⁴39 Fed. Cl. 529 (1997).

³⁵39 Fed. Cl. at 579.

better his progress and the Government has an implied obligation to cooperate and not to impede or delay the contractor's performance. *Eickhoff Constr. Co.*, ASBCA No. 20049, 77-1 BCA ¶12,398. We are persuaded Appellant would have finished the contract earlier than the completion date but for Modification 1 extra work.³⁶

The *Montgomery-Ross-Fisher* case also discussed the question of whether or not the number of changes and the percentage of the price of the changes to the original contract price would, in effect, constitute a “cardinal change.” (See § 6.10[C].) In commenting upon this issue, the Board stated:

The parties' chief witnesses disagreed [*29] on whether the number of changes (forty-one with numerous separate items) and the percentage of the price of the changes, excluding Modification 1, to the original contract price (5%), were inordinately high (F.O.F. 20). However, impact is not demonstrated solely by showing the number of changes or clarifications to the contract, nor by comparing the cost of the changes to the original contract price. *Coley Properties Corp.*, PSBCA No. 291, 75-2 BCA ¶11,514, aff'd in part and rev'd on another claim, *Coley Properties v. United States*, 219 Ct. Cl. 227, 593 F.2d 380 (1979). See also, *Pathman Constr. Co.*, PSBCA No. 444, 79-2 BCA ¶14,027, recon. denied (Jan. 17, 1980), aff'd, *Pathman Constr. Co. v. United States*, 227 Ct. Cl. 670 (1981). There is no fixed rule setting forth the number of changes or percentage of price of changes to establish a cumulative impact due to many changes. A 10% increase was not adequate to establish a cardinal change or breach in *Coley Properties*, supra, at p. 54,940. Moreover, although the Board in *Coley* found impact liability it did so based upon a showing that disruption and inefficiency resulted from [*30] the changes and not upon their cost or numbers. Appellant has failed to produce persuasive evidence of disruption and inefficiency here.³⁷

An excellent description of CPM scheduling is set forth in the matter of *Santa Fe Engineers, Inc.*, ASBCA Nos. 24578, 25838, 28687, 94-2 B.C.A. (CCH) ¶26,872 (1994). The Armed Services Board of Contract Appeals described the critical path method of scheduling in detail as follows:

D. The Critical Path Method (CPM) of Scheduling

The Critical Path Method (CPM) is a planning technique used to determine how long a project will take to complete and identify the most important items that need to be accomplished in order to meet the project deadline (O'Brien Written Testimony (WT) at 30). It is a written description of the manner in which a contractor plans to complete the project on time (id.). It tells the contractor in advance the sequence, duration, and parameters of dates within which specific work must be performed in order to ensure timely completion of the project (O'Brien WT at 38). It can be used to monitor progress by measuring actual job accomplishment against the schedule as a baseline (O'Brien WT at 30).

³⁶84-2 B.C.A. (CCH) ¶7,492, at 87,124.

³⁷*Id.*

The CPM is based upon a graphic project model called a network which depicts all activities that must be carried out with their mutual time dependencies as well as durations in a diagram form (Finding 4773R-Admitted; O'Brien WT at 31). An activity is the basic building block of the network and is defined as a single work step that has a recognizable beginning and end, and required times for its accomplishment (Finding 477R-Admitted; O'Brien WT at 32). Each activity is linked to another through its interdependency or logic (O'Brien WT at 32, 33). The logic of a network refers to the determined order in which activities are to be performed with the commencement of some activities logically dependent or a restraint on the completion of others (Finding 4776R-Admitted; O'Brien WT at 34). However, some activities are independent of others and can proceed concurrently (O'Brien WT at 33). The CPM network literally builds the project on paper, defining the roles and interrelationships of the activities (O'Brien WT at 31).

Four limiting times for each network activity are calculated. The early start of an activity is the earliest date at which it can possibly start, allowing for the times required to complete the preceding activities. The early finish of an activity is the earliest possible date at which it can be completed, and is determined by adding the activity's duration to its early start date. The late finish of an activity is the very latest date at which it can finish and still allow the project to be completed by the designated date. The late start of an activity is the latest possible date that it can be started if the project completion date is to be met. It is calculated by subtracting the activity's duration from its latest finish date. (Finding 4780R-Admitted; O'Brien WT at 36).

The "float" of an activity in CPM scheduling is determined by subtracting its early start date from its late start date, although subtracting the early finish from the late finish will yield identical results (Finding 478-1 Disputed: undisputed portion; O'Brien WT at 39). The path or paths of activities through the network with zero float is known as the "critical path" (O'Brien WT at 39). Any activity with zero float is a "critical activity with the result that any delay in its finish dates prolongs project completion by the same amount of time (O'Brien WT at 39; Finding 4781-Disputed: undisputed portion).

The CPM Schedule must be revised when work is added and deleted, completed, and/or changes in logic are made (O'Brien WT at 41). It must also be updated monthly to reflect work completed as well as the contractor's plans for completing the remaining work including in particular any significant changes in logic or duration (O'Brien WT at 41, 42). Each time updating information is entered into the network a new computation must be made because the new information may cause the critical path to shift (O'Brien WT at 41, 42). A CPM schedule that does not reflect what work is actually being accomplished in the field does not accurately identify the project's critical path and/or activities (O'Brien WT at 42).

As noted above, one of the aspects of CPM scheduling is the concept of float. Float is that period of time that an activity can be delayed without causing a delay to the project and it is often

times designated in the CPM Schedule as the difference between the early and late start date of an activity or the early finish and late finish of an activity. In other words, whatever those differences are is considered to be “float” and those activities can be delayed by those number of days without causing a delay to the project. The case of *Jiminez, Inc.*, VACBA 6351-6254, 6421-6423, 6591 and 6611 (2002) defined float as follows:

Float in a CPM Schedule is the number of days difference between either an activity's early start and late start or the early finish and late finish. Where the early start and late start, and the early finish and late finish dates are the same, there is no float and the activity is critical.

In the case of *Construction Enterprises and Contractors, Inc. v. Orting School District No. 344*, 121 Wash App. 1012 (2004) *review denied* 2004 Wash. LEXIS 905 (unpublished opinion), the court had an occasion to determine whether or not a particular provision in a construction contract relating to “float time” would “float” as a defense to a disruption claim. The case arose in a rather unusual manner. The Orting School District retained CE&C as a contractor on a construction project and also employed Erickson as its architect. Erickson employed Warner to design the paving, grading, water, sewer and storm drain plans. Orting provided CE&C with the design plans prepared by Erickson and Warner. CE&C encountered problems during the job relating to the water, sewer and storm drain plans as well as the road grading and paving plans. Because of those problems, CE&C frequently had to stop work and incurred over \$700,000 in disruption damages, and during the progress of the job, Orting and CE&C executed change orders totaling almost \$500,000.00. Notwithstanding the disruption claimed by CE&C, the project was completed within the contract time.

Notwithstanding the foregoing, CE&C sued Orting for damages resulting from the continuing disruption, loss of productivity, inefficiencies and extended performance costs based upon the inadequate design and the continuing failure to provide timely fixes for the design deficiencies. In other words, CE&C was not suing for damages for delay, but was suing for loss of productivity costs as a result of disruption. Orting, in turn, brought a claim against Erickson for indemnity and Erickson, in turn, brought a claim against Warner for indemnity. Obviously, these claims were made on the basis that if, in fact, Orting was liable to CE&C for these damages, Orting was entitled to indemnity from Erickson and Erickson was entitled to indemnity from Warner. CE&C entered into a settlement with Orting and Erickson, the terms of which were not discussed by the court. However, as a part of the settlement, Orting assigned its claims against Erickson and Warner to CE&C and Erickson assigned its claims against Warner to CE&C. Thus, CE&C ended up owning whatever claims Orting had against Erickson and Erickson had against Warner.

In regard to the loss of efficiency claim, Warner filed a Motion for Summary Judgment claiming that those damages were barred by a provision in the contract which assigned all float time to the owner. Specifically, the provision read as follows:

FLOAT TIME: The inclusion of float time in the activity listing of the Contractor's Construction Schedule shall be owned entirely by the Owner. The Contractor shall not be entitled to any adjustment in the Contract Time, the Contractor's Construction Schedule, or the Contract Sum, or to any additional payment of any sort by reason of the loss or use of any float time, including time between the Contractor's anticipated completion date and the actual completion date.

Warner reasoned that CE&C's claims are keyed to its frustrated plan to finish the project before the contract completion date and that because CE&C finished the project on time, any claim for this time loss is precluded by the language in the above quotation, to-wit, “including

time between the contractor's anticipated completion date and the actual completion date.” CE&C countered that it suffered increased performance costs due to disruption, inefficiency and loss of productivity caused by the design defects and that as such, these were disruption damages and not delay damages and the above-mentioned clause regarding float time relates only to delay damages, not disruption damages. CE&C defined “float time” as “the excess time scheduled on various side path activities which are not on the critical path and thus will not delay the entire project.” CE&C further claimed that its claim was not for lost float time, but for disruption of the productivity of the individual work items, some of which had float and some of which did not.

CE&C contended that unlike a delay claim, which redresses losses from being unable to work, a disruption claim compensates for damages suffered from actions that make the work more difficult and expensive than anticipated, citing *U.S. Indus., Inc. v. Blake Constr. Co.*, 217 U.S. App. D.C., 671 F.2d 539 (D.C. Cir. 1982). CE&C further contended that the float time provision, as interpreted by Warner, violated a statute which voided any waiver of damages for “unreasonable delay in performance caused by acts or omissions of the contractee.” Warner countered that the float time provision does not prevent delay damages, it simply allocates unused float time during the contract time to the owner and not to the contractor, and since that contract language simply defines the party's rights and procedures for handling contractor's claims, it does not violate the statute. The court agreed with Warner with regard to that contention. The court went on to note, however, as noted above, CE&C is claiming disruption damages, not delay damages. The court concluded that Warner had failed to show “as a matter of law” that the float time language barred CE&C's disruption claim. The court made the following statement with regard to float time:

Float time is not defined in the contract. It is not a commonly understood term, and CE&C presented evidence of its meaning in the construction industry. Gregg Warter, CE&C's president, testified that the time between CE&C's anticipated early completion date and the contract completion date is not float time. Warner offered no evidence of what the parties intended by the float time provision other than the language of the contract itself. We conclude that an issue of material fact exists as to the meaning of float time in the contract and whether the float time language bars some or all of CE&C's claims.

The court never finally addressed the underlying issue as to whether or not the clause in question (allocating float time to the owner) would, in fact, bar a disruption claim by the contractor. The court merely concluded that there was an issue of material fact as to the meaning of float time in the contract and whether the float time language would bar some or all of CE&C's claims. It seems strange that the parties did not present expert testimony as to the meaning of float since expert CPM consultants regularly deal with the meaning of float and how it is used on construction projects.

Some owners insert provisions in their contracts allocating all the float time to the owner. That may or may not be a good idea from a strategy standpoint. Where such a provision is contained in the scheduling specifications, the contractor may merely make more items critical without float time in order to contend that any delay by the owner will delay the project. That strategy can backfire on the contractor if the contractor delays an activity with no float. As to whether or not it would bar a disruption claim as distinguished from a delay claim, remains yet to be determined, at least according to the opinion in this particular court. It would seem to the authors that the float time clause would not defeat a disruption claim since float time relates to time and delay issues. The authors know of no other court decision that has addressed this precise issue.

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