contractor is entitled to have taken into account any “inexcusable” delay that would not have been encountered but for the “excusable delay.”

A finding of “excusable delay” precludes the owner from relying upon that delay as a basis for terminating the contract for default, assessing liquidated damages or recovering actual damages of delay.

§ 15:43 Delay: Using principle of “control” to assess liability for time impacts that delay performance—“Excusable” delay: Delay outside the “control” of both contracting parties—“Excusable” delay due to “abnormal” weather

Delay to the critical path caused by “abnormal” weather 1 outside of the “control” of the parties—the proverbial act of God 2—is

---

7 See Wunschel & Small, Inc. v. U.S., 1 Cl. Ct. 485, 30 Cont. Cas. Fed. (CCH) P 70354 (1982) (opining that a time extension for excusable delay must take into consideration foreseeable bad weather that would not have been encountered but for the excusable delay). By the same reasoning the contractor is entitled to receive compensation for an excusable delay that would not have been encountered but for a compensable delay. See J. D. Hedin Const. Co. v. U. S., 171 Ct. Cl. 70, 347 F. 2d 235 (1965) (holding that delays due to abnormal weather and labor strikes, although normally excusable and noncompensable, would be compensable because prior government caused delays forced the contractor into more costly operations).

8 See the Federal Default Clause, F.A.R. § 52.249-10(b) which bars either termination or assessment of damages for excusable delay; Stone v. City of Arcola, 181 Ill. App. 3d 513, 130 Ill. Dec. 118, 536 N.E.2d 1329 (4th Dist. 1989); U.S. v. United Engineering & Construction Co., 49 Ct. Cl. 689, 234 U.S. 236, 34 S. Ct. 843, 58 L. Ed. 1294 (1914). See also R.P. Wallace, Inc. v. U.S., 63 Fed. Cl. 402, 409 (2004) (“To the extent, the contractor can show the existence of excusable delay beyond that previously allowed by the Navy, it is entitled to the remission of liquidated damages, and potentially the recovery of delay damages.”).

[Section 15:43]

1 See § 7:230. See also Gunnell, Adverse Weather and the Construction Process, Construction Briefings No. 98-6 (May 1998); Finke, Unusually Severe Weather, 23 Public Contract L.J. 495 (1993); Construction contract provision excusing delay caused by “severe weather”, 85 A.L.R.3d 1085. See also Weather reports and records as evidence, 57 A.L.R.3d 713.

See also Hartmann and Proung, Inclement Weather—We’ll Weather the Weather, Whatever the Weather, Whether We Like it or Not, 7 Constr. Law. Int’l 21 (Mar. 2012) (urging lawyers to carefully draft time extension and force majeure clauses to define what is “normal” as compared with “abnormal” weather).

“excusable.”³ The critical issues are (1) how to distinguish “normal” weather foreseeable at the work site in the seasons of expected performance from unanticipatable “abnormal” weather,⁴ and (2) measurement of the impact of “abnormal” weather on critical path activities.⁵

A excusable delay can result from unusually severe weather. Nevertheless, an excusable delay should not be granted for unusually severe weather unless the contractor has shown that the weather actually had an adverse impact on critical work . . . Moreover, it is not sufficient to establish that some work was prevented; the work prevented must be work that will delay the overall completion of the job.

The legal focus remains on the principle of “control.” AIA Document A201-1997, ¶ 8.3.1 allows a time extension for any delay “beyond the contractor’s control” but makes no specific mention of weather delays. Prior to 1987 the A201 document mentioned specifically as an-excusable delay “adverse weather conditions not reasonably anticipatable.” The word “adverse” is too general to be helpful.

See Central Coast Const. v. Lincoln-Way Corp., 404 F.2d 1039, 1042 (10th Cir. 1968) (holding that a contractor was entitled to a weather extension for any and all “adverse” weather under contract language excusing delay for any reason “beyond the control of the contractor”).

See also Daewoo Engineering and Const. Co., Ltd. v. U.S., 73 Fed. Cl. 547 (2006), judgment aff’d, 557 F.3d 1332 (Fed. Cir. 2009) (“Money damages are not available for weather delays. Non-compensated extensions of time to complete the contract resolve unexpectedly harsh weather conditions.”).

See also Edge Const. Co., Inc. v. U.S., 95 Fed. Cl. 407 (2010) (government was not liable for lost productivity due to weather delays not caused by or otherwise attributable to government “control”).

⁴See Cape Ann Granite Co. v. U.S., 100 Ct. Cl. 53, 1943 WL 4289 (1943) (denying contractor’s claim for a weather extension because normally harsh weather was foreseeable at the construction site during the contract period and the encountered weather, though severe, was not abnormally harsh). Weather that is “normal” for one location or season obviously may not be for another location or season. There can be no dispute that minus 20° Fahrenheit temperatures would be “unusually severe” weather for Southern Florida at any time of year but normal for Alaska’s North Slope in winter. See XI, Balaji and Molenaar, Quantify Construction Delays Due to Weather (University of Colorado, Department of Civil, Environmental and Architectural Engineering 2005) (a final report of a technology study submitted to the Federal Highway Administration, Central Federal Land Highway Division offering a conceptual model for standardizing risk allocation for weather in contract documents and for creating a framework for predicting the number of non-work days due to weather).

See also Knoll and Bjorklund, Force Majeure and Climate Change: What is the New Normal?, 8 JACCL 29 (Winter 2014).

⁵See XI, Valaji, and Molenaar, Quantified Construction Delays Due To Weather (Final Report of Technology Study submitted to U.S. Federal Highway Administration 2006) (recognizing that different construction operations are impacted differently by weather, and endeavoring to develop a “weather model” to predict the number of delay days particular construction activities may be deemed impacted by weather).
Weather can be “abnormal” in four distinct respects—temperature, humidity, precipitation and wind velocity—and the effect of each on construction activities varies markedly depending on intensity, the sensitivity of construction activities being performed at the time of the weather occurrence, and the state of construction and site conditions. As was observed by the Armed Services of Board of Contract Appeals in *Appeal of Essential Const. Co., Inc.*:

[An exceptionally heavy one-day rain could have a serious adverse effect on a construction site highly subject to erosion. However, the same exceptionally heavy rain could cause less delay than a lighter rain continuously falling over a period of several days would cause on activities such as exterior painting. A light wind would normally have little, if any, effect on a construction project but, if dust laden, it could preclude activities such as painting or installation of sensitive electronic equipment. In construction work particularly sensitive to freezing, such as some paving and most masonry construction, a temperature of 10° below zero probably would have no greater adverse effect than one of 10° above.]

Weather clearly affects trades differently. Weather has less impact on work ordinarily performed by interior trades in an enclosed building, such as plumbers, plasterers, electricians, fireproofers and painters, than on exterior trades. Whereas interior trades working in enclosed buildings under temporary heat are little affected by weather, exterior site excavators and graders may suffer shutdowns during heavy rains, sometimes for days, until the site is dry enough to permit efficient earth-moving operations. In enclosed buildings, the key weather factors for the interior trades are temperature and humidity. Sub-freezing temperatures in a building interior without temporary heat will slow down productivity of interior trades, affect the installation of materials and require special protection to keep work from freezing. High humidity can shut down plastering, drywall taping, sealant installation and other moisture sensitive activities. High temperature, combined with high humidity, can make for an inefficient and unsafe work environment.

The obvious generality of the exculpatory legal standard of

---


7See §§ 15:106 to 15:110.

8“Enclosure” is understood in the construction industry to mean that the walls are up, the roof is on and all exterior openings are temporarily covered.

“abnormal” weather\textsuperscript{10} has fostered efforts to develop more specific criteria by which “abnormality” could be judged. In federal contracts, excusable weather is defined as (1) “unusually severe,” (2) unforeseeable, and (3) beyond the control and without the fault or negligence of the contractor.\textsuperscript{11} These general concepts did not greatly alleviate the confusion. In an effort to provide an even more objective “bench mark” by which to distinguish “abnormal” weather from “normal” weather at any site location and season, the U.S. Army Corps of Engineers (Corps) developed a 10-year weather average method.\textsuperscript{12} To constitute an “excusable delay” under the Corps’ method, weather must be “unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month,” and “the unusually severe weather must actually cause a delay to the completion of the project and otherwise be beyond the control and without the fault or negligence of the contractor.”\textsuperscript{13}

The Corps’ method utilizes the weather records of the United States National Oceanographic and Atmospheric Administration as the source for compiling the 10-year weather averages ap-

\textsuperscript{10}See Central Coast Const. v. Lincoln-Way Corp., 404 F.2d 1039 (10th Cir. 1968) (under contract provision authorizing an extension of time for completion for “circumstances beyond the control of the contractor,” the contractor was entitled to a time extension for any bad weather that adversely affected its operations even though foreseeable). See also Handex of Carolinas, Inc. v. County of Haywood, 168 N.C. App. 1, 607 S.E.2d 25, 34-35 (2005) (“The contract provided that ‘abnormal weather conditions’ were to be determined based on the National Weather Service’s thirty-year average. The evidence before the jury provided two different interpretations of what constituted the timeframe for measuring those conditions, thus affecting calculations of whether it was above or below the National Weather Service’s thirty-year average. It was also unclear . . . whether the ‘average’ was to consider days of rain, or inches of rain, and where the statistical data for the weather conditions was to be collected. We find this means of determining ‘abnormal weather conditions’ ambiguous.”).

\textsuperscript{11}See F.A.R. § 52.249-10(b) (excusing delay arising from “unforeseeable causes beyond the control and without the fault or negligence of the contractor,” including the cause of “unusually severe weather”).

\textsuperscript{12}See Army Corps of Engineers Regulation, Construction Time Extension for Weather, ER 415-1-15 (31 Oct. 1989). See XI, Balaji and Molenaar, Quantify Construction Delays Due to Weather (University of Colorado, Department of Civil, Environmental and Architectural Engineering 2005) (a final report of a technology study submitted to the Federal Highway Administration, Central Federal Land Highway Division offering a conceptual model for standardizing risk allocation for weather in contract documents and for creating a framework for predicting the number of non-work days due to weather).

Applicable to the time of year and project site at which the weather is experienced. Relief is afforded only if “unusually severe” weather impacts the contractor’s work (1) on critical path activities, and (2) for 50% or more of the scheduled work day. In addition, the resulting delay must exceed the foreseeable “normal” weather delay anticipated at the time of contracting or included in the construction schedule. One risk in including weather data in the contract documents, without disclaimer or qualification, is that the data may be construed as an affirmative representation of expected conditions which, if erroneous, can lead to liability for misrepresentation or breach of the implied warranty of the adequacy of design specifications and result in any delay beyond that represented as being “compensable.”

If a contractual procedure for determining “abnormal” weather has not been agreed upon, parties are at liberty to advance their own proof of weather severity. This can lead to creative use by the parties of statistics to present the most advantageous benchmark averages. In *McDevitt & Street v. Marriott Corporation*, for example, the contractor’s expert utilized a 20-year average to

---

15 See Army Corps of Engineers Regulation ER 415-1-15 (31 Oct. 1989), Appendix A.
17 See D.F.K. Enterprises, Inc. v. U.S., 45 Fed. Cl. 280 (1999) (holding government’s inclusion in specifications of a “weather chart” of anticipated conditions constituted not merely a guide but an affirmative representation of past weather conditions such that the government could be liable for damages and delay caused by “excessively windy conditions”).
18 See Mundy v. New York, L. E. & W. R. Co., 27 N.Y.S. 469 (Gen. Term 1894) (holding inexcusable the untimely delivery of contract supplies due to an 1889 flood, because the flood was reasonably foreseeable since similar floods had occurred in 1865 and 1833 “within the memory of people then living”). See also Handex of Carolinas, Inc. v. County of Haywood, 168 N.C. App. 1, 607 S.E.2d 25, 34-35 (2005) (“The contract provided that ‘abnormal weather conditions’ were to be determined based on the National Weather Service’s thirty-year average. The evidence before the jury provided two different interpretations of what constituted the timeframe for measuring those conditions, thus affecting calculations of whether it was above or below the National Weather Service’s thirty-year average. It was also unclear . . . whether the ‘average’ was to consider days of rain, or inches of rain, and where the statistical data for the weather conditions was to be collected. We find this means of determining ‘abnormal weather conditions’ ambiguous.”).
prove severity, the owner utilized a 5-year and 24-year mean to prove the opposite. The United States District Court for the Eastern District of Virginia sided with the owner in ruling that the weather encountered was reasonably foreseeable. Lack of a contractually established procedure also leaves the issue ultimately up to the discretion of judges and jurors under general instructions such as “severe weather implies bad weather which by reason of atmospheric conditions . . . is not reasonably fit or proper to permit the performance of the undertaking contemplated.”20 Such risky ambiguity commends the contractual definiteness of the Corps’ method.

Weather proven to be unforeseeable and “abnormal” will excuse untimely contract performance. For example, in *Northern Corporation v. Chugach Electric Association*,21 a contract for the repair of a reservoir dam located in mountainous terrain was silent regarding the issue of site access. The contractor and owner both assumed that ice haul of materials and equipment across a passable frozen reservoir in winter was the only practical method for gaining access to the dam site. Because unusual freeze/thaw weather conditions supervened to cause soft honeycombed ice over two years, the contractor was unable to transport anything to the site. After losing a Euclid loader, two trucks and the lives of two truck drivers endeavoring to get across, the contractor sought to be excused from the contract due to impracticability and to recover its costs of attempted performance. The Supreme Court of Alaska, concluding that the ice haul method was a basic assumption of the parties when they entered into the contract and that the owner had assumed the risk of impracticability, excused the contractor’s nonperformance and upheld the contractor’s claim.

Similarly, in *Dillon v. United States*,22 a severe drought supervened to make impracticable the performance of a contract to supply hay to the United States government in Oklahoma. Although the contractor sought to fulfill the contract well outside the geographic area contemplated by the parties upon entering into the contract, the government terminated the contract for default. The severity of the drought was described by the United

---


States Court of Claims in almost biblical terms:

Anyone who has ever been on the fringe of the so-called “dust bowl” during the rare occasions on which the severe droughts sometimes prevail can realize the havoc that is wrought at such a time. Hot winds come and sweep a blistering trail across the prairies. The heavens become like brass and the earth is iron. Small streams go dry, the leaves wither and the growing grass becomes seared. Within the space of a few days tremendous damage can be done.\textsuperscript{23}

The court ruled that the doctrine of impracticability excused the contractor’s nonperformance and, because the contractor went to extraordinary lengths beyond anything contemplated at the time of entering the contract in attempting to fulfill its contract, the default termination was set aside and the contractor awarded its extra costs incurred in buying hay in another state at a significantly increased prices.

Determination of the contract time extension to be granted due to “unusually severe” weather requires careful analysis of:

1. The critical path;
2. The effect of the weather upon the contractor’s critical path activities;
3. The extent and reasonableness of downtime during the weather;
4. The extent and reasonableness of continued downtime after passage of the severe weather attributable to the impact of such weather upon site conditions; and
5. The extent to which the consequences of such weather reasonably could and should have been avoided or mitigated.

A critical path analysis of the cause, duration and consequences of the “unusually severe” weather delay is essential. An “excusable” extension of time is justified only if the “abnormal” weather impacted the critical path of the project and the delay exceeds foreseeable weather delay days. Mere consumption of “weather” float in noncritical activities will not justify an extension of time. Only a competently prepared critical path analysis can truly determine the effect on the project critical path of an otherwise excusable cause of delay.\textsuperscript{24} The question of whether the impact of “abnormal” weather on construction operations could have been

\textsuperscript{24}See Blinderman Const. Co., Inc. v. U.S., 39 Fed. Cl. 529, 42 Cont. Cas. Fed. (CCH) P 77210 (1997), aff’d, 178 F.3d 1307 (Fed. Cir. 1998) (observing that “where, as in the case at bar, the parties used CPM to evaluate contract performance, courts consistently hold that no proven injury results from construction delays unless it is shown that the activities delayed are on the project’s critical
avoided or mitigated is ever present. For example, a shutdown of site-grading activities due to soil saturation following a heavy rain might be “inexcusable” if the contractor was responsible for but failed to provide adequate site drainage. Similarly, delay due to unusual cold in a building may be “inexcusable” if the contractor failed to provide temporary heat as required by the contract.

§ 15:44 Delay: Using principle of “control” to assess liability for time impacts that delay performance—“Excusable” delay: Delay outside the “control” of both contracting parties—“Excusable” delay due to unforeseeable strikes and labor problems

Delay to the critical path caused by unforeseeable strikes and labor problems outside the “control” of the parties is “excusable,” unless otherwise contractually provided. The “control” elements of foreseeability at the time of contracting and avoidability dur-

---


26 See R. S. Noonan, Inc. v. Morrison-Knudsen Co., Inc., 522 F. Supp. 1186 (E.D. La. 1981) (owner who was responsible for coordinating contractor work on a multiple prime contractor project was held liable for damage to one contractor caused by inadequate site drainage under the control of the owner and another contractor).