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| CEMP-CP Regulation No. 415-1-15 | Department of the Army U.S. Army Corps of Engineers Washington, DC 20314-1000 | ER 415-1-15 31 Oct 89 |
| | Construction CONSTRUCTION TIME EXTENSIONS FOR WEATHER | |
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DEPARTMENT OF THE ARMY
U. S. Army Corps of Engineers
Washington, D. C. 20314-1000

CEMP-CP

Regulation
No. 415-1-15

31 October 1989

Construction
CONSTRUCTION TIME EXTENSIONS FOR WEATHER

1. Purpose. To provide guidance for establishing contract time adjustments for delays resulting from unusually severe weather.
2. Applicability. This guidance applies to all USACE elements and will be used for all military and civil construction contracts with the exception of dredging contracts or contracts which are highly dependent upon river stages.
3. Reference. FAR 52.249-10.
4. Objectives.
 - a. Establish a consistent approach and methodology for analyzing and adjusting the contract performance time when delays due to unusually severe weather are incurred.
 - b. Administer construction contracts in a fair and reasonable manner consistent with the provisions of FAR 52.249-10.
 - c. Maintain schedule control with respect to weather delays by periodic application of this methodology throughout the contract period and by the timely issuance of modifications.
5. Definitions.
 - a. "Adverse weather" - atmospheric conditions at a definite time and place that are unfavorable to construction activities.
 - b. "Unusually severe weather" - weather that is more severe than the adverse weather anticipated for the season or location involved.
6. Implementation.
 - a. Appendix A contains the latest version of the special clause which shall be included in all applicable contracts (see paragraph 2, above). To avoid conflict, no other special clauses in reference to weather conditions shall be included.

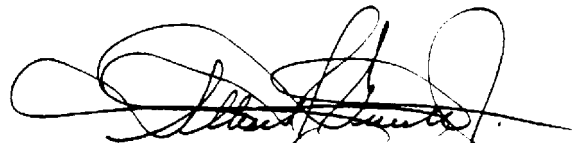
This regulation supercedes ER 415-1-15, 31 July 1987.

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By using this clause, it is possible to determine the delays due to the occurrence of unusually severe weather through comparison of the anticipated adverse weather delay with the actual delays due to adverse weather experienced at the project site during construction. If it is found that the weather experienced is unusually severe, further analysis will be performed to determine if critical construction activities have been affected and, as a result, completion is delayed.

b. Appendix B provides instructions on development of monthly anticipated adverse weather delay data, application of the data to estimating performance time, and analysis of actual adverse weather delays during construction. Independent evaluation of a contractor's entitlement to time for unusually severe weather delays must be made on a monthly basis, and should occur even though the contractor may not have placed the government on notice for a specific adjustment or only generally indicated that weather delays are being experienced. If monthly evaluations result in contractor entitlement to additional time, then the contractor will be given prompt notice of the entitlement determination and a contract modification will be issued not less than quarterly, and on a unilateral basis if necessary.

FOR THE COMMANDER:



ALBERT J. GENETTI JR.
Colonel, Corps of Engineers
Chief of Staff

- 2 Appendices
APP A - Time Extensions for
Unusually Severe Weather
APP B - Development and Analysis
of Adverse Weather Data

APPENDIX A

SC_____ TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

1. This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the contract clause entitled "Default: (Fixed Price Construction)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

a. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

b. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the contractor.

2. The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON (5) DAY WORK WEEK *

| JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|
| (10) | (9) | (9) | (8) | (7) | (7) | (7) | (5) | (6) | (5) | (7) | (8)* |

3. Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the contractor will record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the contractor's scheduled work day.

* INSTRUCTION: INSERT NUMERICAL VALUES IN ACCORDANCE WITH APPENDIX B. VALUES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY

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The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph 2, above, the contracting officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled "Default (Fixed Price Construction)".

APPENDIX B

DEVELOPMENT AND ANALYSIS OF ADVERSE WEATHER DATA

1. Development of Adverse Weather Data -- This is the process of collecting, compiling and analyzing the raw weather data (NOAA and other sources) that forms the baseline for estimating anticipated delays and project durations and determining the occurrence of unusually severe weather. The following actions make up the development process:

a. Analyze the project scope and site geography to determine which weather parameters (temperature, precipitation, wind, etc.) are applicable. The parameters selected should present adverse conditions that could potentially delay construction activities.

b. Review the technical specifications to determine the numerical values that will be assigned to each parameter in order to establish the anticipated adverse weather. Usually when two or more construction phases are affected by the same parameter, the less severe numerical value should be used (i.e., if roofing work is delayed by temperatures below 40 degrees and concrete work is delayed by temperatures below 32 degrees, then the numerical value used to define adverse weather should be 40 degrees unless some other factor renders the roofing phase insignificant in terms of schedule criticality).

c. Compile the number of days per month that the anticipated weather is expected to be adverse by analysis of NOAA or other weather data. When at all possible, the last 10 years of consecutive data should be used to establish the baseline. However, in the absence of 10 years of data, a shorter period may be used. It may be necessary to extrapolate the number of calendar days that the temperature is expected to fall below the selected numerical value (say, 40 degrees) from raw data.

d. Adverse weather data must be periodically updated in order to reflect changes in the 10 year averages and incorporate any necessary corrections derived from actual field experience. It is recommended that data used for establishing adverse weather baselines be reviewed annually.

2. Application of Adverse Weather Data to Performance Time Estimates -- The following paragraphs outline steps to develop the baseline schedule in Appendix A and incorporate normal adverse weather data in estimates of construction contract performance time.

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a. Prepare a preliminary project schedule and determine the project construction duration in calendar days (excluding weather delays).

b. Estimate the date of NTP from bid opening and award schedules.

c. Compare the preliminary project schedule to the adverse weather data compiled in paragraph 1c and determine the anticipated delay due to adverse weather for each month of Appendix A.

(1) This will require analysis of concurrent effects of different parameters, project specific conditions and estimated impact (continued delay on days following the adverse weather).

(2) Incorporation of anticipated delays due to weather will change individual activity durations and progressively shift the preliminary schedule and move weather dependent activities into or out of unfavorable conditions.

(3) After the process is completed for the entire preliminary schedule, the revised performance time can be determined by adding the applicable parameter values to the original performance time. The data that is created should be filed for record.

(4) The schedule of MONTHLY ANTICIPATED ADVERSE WEATHER DELAY, which will be inserted in Appendix A, is derived by taking the monthly delays added to the preliminary schedule and converting them to work days based on the estimated work schedule. On multi-year contracts it may be necessary to average or otherwise consolidate different delays for the same month of year.

3. Analysis of Actual Adverse Weather During Construction --

a. Although the contractor is required to document the occurrence and effect of adverse weather on the work, it does not relieve the Government of its responsibility to investigate and determine if an excusable delay has occurred.

b. The schedule of anticipated adverse weather delays included in the contract is established in work days. Similarly, actual weather data should be collected and recorded on a work day basis. Monthly summaries should be maintained indicating actual adverse weather conditions and the impact on work activities.

c. To determine if any particular month experienced unusually severe weather, the number of actual adverse delay days is compared to that given in the table in the special clause. If the number of actual delay days is greater than that in the contract the contractor has experienced unusually severe weather.

d. THE DETERMINATION THAT UNUSUALLY SEVERE WEATHER OCCURRED DOES NOT AUTOMATICALLY MEAN THAT THE CONTRACTOR RECEIVES A TIME EXTENSION FOR THE DIFFERENCE OF DAYS BETWEEN THE ANTICIPATED AND ACTUAL ADVERSE WEATHER DELAY DAYS. Further analysis is necessary to determine if the unusually severe weather delayed work activities critical to contract completion. The contractor's progress schedule must be evaluated to make this determination. If it is found that unusually severe weather delayed the contract, a contract modification shall be issued pursuant to FAR 52.249-10.

e. As stated in the basic ER, any necessary modifications will be issued not less than quarterly. However, the contractor will be notified on a monthly basis of the government's determination and be instructed to incorporate the expected time extension, if any, in his monthly progress schedule update. It is equally important to notify the contractor of negative determinations on a monthly basis so that the Government's intentions are clearly understood.

f. The supporting documentation for the modification shall cite the appropriate contract clause (FAR 52.249-10) and state that the contractor was delayed by "unusually severe weather" during a defined period.