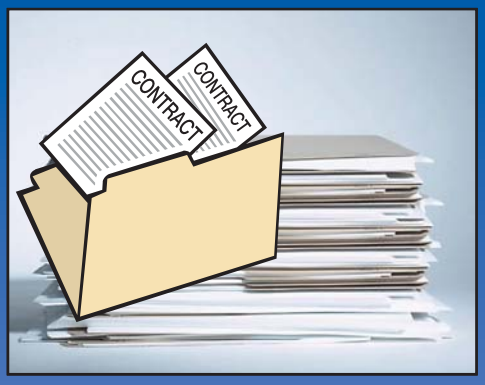

Defective and Deficient Contract Documents – A 2013 Update

Richard J. Long, P.E.

LONG INTERNATIONAL

Long International, Inc. • 5265 Skytrail Drive • Littleton, Colorado 80123-1566 USA • Telephone: (303) 972-2443 • Fax: (303) 200-7180 • www.long-intl.com

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1. INTRODUCTION

If the owner of an engineering and construction project first contracts with an engineering or architectural firm to prepare the specifications, construction drawings, and other contract documents, and then hires a construction contractor to build that project, the owner carries an implied warranty that 1) the specifications, construction drawings, and other contract documents that it furnishes to the construction contractor are accurate, and 2) an acceptable product will result if such specifications and drawings are followed. Examples of the Breach of Implied Warranty of the accuracy of the specifications include misrepresentations of soils conditions, misrepresentation of the availability of construction water, or structural design flaws such as bolts too small to meet loads. Examples of the Breach of Suitability of Specifications include the design of a heating system insufficient for a building's needs, specification of roof insulation that violates the local building codes, the specification of foundation piles or pile driving methods that provide an inadequate foundation for a building, or specification of a steam boiler and piping system that does not provide an adequate amount, pressure, or temperature of steam.

Specifications and drawings can be defective because of the following: error or omission, incompleteness, inadequate detail or description, conflicts, incompatibility or inconsistency, insufficient legibility or coordination to permit satisfactory construction, inability to use the particular materials or procedures specified, commercial unavailability of a specified item, or misleading provisions, or other similar problems. Specifications do not have to be perfect; a reasonable number of errors are acceptable as long as the specifications are prepared with a reasonable standard of care and are of average quality as judged by industry practice.[1]

Defective plans and specifications can cause the contractor to perform extra work to correct the defect, delay the contractor while the owner determines how to correct the defect, disrupt the contractor's work by forcing the contractor to resequence its work to avoid the affected area until the owner decides what to, or all of the above. The contractor may be able to recover its increased costs as a result of these problems. The contractor may also be able to recover damages against the owner for the increased costs resulting from the difficulty of achieving the construction methods included in the owner's plans and specifications. This includes the costs of additional materials, equipment, labor, and other damages, including lost profit, resulting from

[1] See, *e.g.*, *John McShain, Inc. v. United States*, 412 F.2d 1281. 1283 (Ct. Cl. 1969). Notwithstanding the potential that the owner may have a tort remedy for design malpractice, the standard of care by which a design professional's conduct will be measured in assessing his liability in either contract or tort must be determined. In the absence of express contractual warranties or stipulations imposing a different standard of care, proof of negligence has traditionally been required as a basis for the imposition of liability in damages upon design professionals. In performing the design work, the engineer's duty is to exercise such care, skill and diligence as men engaged in that profession ordinarily exercise under like circumstances. The engineer is not an insurer that the contractors would perform their work properly in all respects. See, *e.g.*, *Pastorelli v. Associated Eng'rs, Inc.*, 176 F. Supp. 159, 166 (D.R.I. 1959) (quoting *Cowles v. City of Minneapolis*, 128 Minn. 452, 151 N.W. 184, 185 (1915)).

delay. The contractor also may be protected against the liability resulting from defective construction if it followed the owner's drawings and specifications without deviation. The contractor's defense from consequential or liquidated damages due to delays or from personal injury damages due to failures is often based on defective plans and specifications.

A defective specification also may breach the implied warranty that the contractor will be able to perform the contract in the specified time. In such cases, the contractor may recover its damages and extended overhead costs due to delays and related impacts. This breach cannot be cured by noncompensable time extensions or by the owner refraining from enforcing liquidated damages.

To recover its increased costs as a result of defective and deficient specifications, drawings, and other contract documents supplied by the owner, a contractor may need to demonstrate that specifications, drawings, and other contract documents contain representations which were materially different from those actually encountered, the contractor justifiably relied upon those representations, and the actual conditions increased the cost of performing the work.

The following topics are discussed herein:

- The Spearin Doctrine and other legal underpinnings of the contractor's entitlement to recover its increased costs as a result of defective and deficient contract documents;
- The owner's failure to disclose vital information to the contractor;
- Contractual time limits may not be an adequate defense against extra work claims due to drawing revisions;
- The owner's defenses against *Spearin*; and
- Options for mitigation.

2. THE SPEARIN DOCTRINE AND OTHER LEGAL UNDERPINNINGS

Substantial legal precedent exists in the U.S. for contractors to recover their increased costs as a result of defective specifications and drawings provided by the owner. The landmark case for this issue is called the Spearin Doctrine. Other courts and boards have extended *Spearin* to include methods of production, latent errors and ambiguities, omission of vital information, and exculpatory clauses limiting the contractor's time to make a claim as a result of the owner's revisions to drawings. These topics are discussed below:

2.1 THE SPEARIN DOCTRINE

What are the contractor's remedies when it incurs damages because of problems with the owner's specifications and drawings? The contractor usually can base its request for an equitable contract adjustment on entitlement supported by the Spearin Doctrine.[2] Spearin contracted with the U.S. government to build a dry dock at the Brooklyn Navy Yard. The government provided plans requiring the relocation of a six-foot storm sewer, including dimensions, materials of construction, and the new location of the rebuilt sewer. Spearin fully complied with the specifications. However, a nearby seven-foot sewer was blocked by a dam that prevented water from backing up into that sewer, which the government then requested that Spearin remove. Before completion of the dry dock, the six-foot sewer installed by Spearin broke and flooded the site due to high tides, heavy rains, and water pressure. A later investigation found that the six-foot sewer broke because the design did not take into account the dam in the seven-foot sewer. The government refused to pay for the damages, and Spearin sued.

The Supreme Court in *Spearin* said,

> *But if a contractor is bound to build according to plans and specifications prepared by the owner, the contractor will not be held responsible for the consequences of defects in the plans and specifications.*

In most cases, the courts and boards have relied on the implied warranty established by this benchmark case to find in the contractor's favor, and does not depend on the owner's negligence.[3] Depending on the terms of the design contract, however, the owner may have recourse against the architect or engineer for recovery of damages that it paid to the contractor. Also, a general contractor may have liability to a subcontractor for the inadequacy of the plans and specifications even if the general contractor did not participate in the preparation of the plans and specifications and did not represent to the subcontractor that it had special knowledge.[4]

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[2] *United States v. Spearin*, 248 U.S. 132 (1918).

[3] See, *e.g.*, *Christie v. United States*, 237 U.S. 234 (1915); *W.H. Knapp Co. v. State*, 18 N.W.2d 421 (Mich. 1945).

[4] See, *e.g.*, *APAC Carolina, Inc. v. Town of Allendale*, 41 F3d 157 (4th Cir. 1994); *Keller Constr. Corp. v. George W. McCoy & Co.*, 119 So.2d 450 (La. 1960).

Over the years, legal scholars have supported the findings in *Spearin*. Professor Corbin explains:

> *If the destruction of the partly completed structure or the defects in it when completed are caused by the representations of the owner on which the contractor reasonably relied, or by defects in plans and specifications supplied by the owner which the contractor was required to follow, the contractor will not be liable in damages for non-performance and will not be denied judgment for compensation.*[5]

In his treatise on contract law, Professor Williston states:

> *If the owner through his architect or engineer may properly be regarded as having superior expert knowledge, and on the basis of such knowledge to have represented to the builder the feasibility of carrying out the owner's plans, the latter must be held responsible for the consequences of any defects or omissions in them.*
>
> *In ordinary cases, perhaps, the builder may be supposed to have sufficient knowledge of what is feasible to make unfounded the assumption of justifiable reliance by him on the superior knowledge of another.*
>
> *However, where the work in question involves technical engineering skill, and the plans are made by professional technicians or experts engaged by the owner, there seems to be every good reason for implying a warranty.*[6]

State courts have also upheld the owner's implied warranty of the plans and specifications:

> *…the act of the owner in furnishing the plans and specifications amounts to a warrant of their fitness and that, where one party furnishes specifications and plans for a contractor to follow in a construction job, he thereby impliedly warrants their sufficiency for the purposes implicit therein and whether the builder has been damaged in proceeding with the work in reliance on such an implied warranty or whether he was damaged in relying on the warranty in making his bid, he may recover.*[7]

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5 Corbin, Contracts, § 1338 at 394 (1962).
6 Williston, Contracts, § 1966 (3d ed. 1978).
7 *McCree Co. v. State*, 91 N.W.2d (Minn. 1958).

2.2 ADDITIONAL SUPPORTING CASE LAW

U. S. courts and boards have often extended for expanded on the tenets of the *Spearin* ruling. Examples of the cases are summarized below:

2.2.1 Failure to Provide "Specific Information on Matters of Substance"

Helene Curtis Industries, Inc. v. United States[8] extended *Spearin* to cover methods of production; if a different and more expensive method of production is necessitated, and the owner did not disclose this "specific information on matters of substance," the contractor is entitled to recover its additional costs.

The good faith intentions of the contractor are important to the court's considerations in determining entitlement. If the contractor innocently construes the provision in its favor without trying to take advantage of ambiguities, the courts will normally find in its favor. This is an application of the *contra proferentem* rule which finds that, in the case of ambiguous or conflicting specifications, interpretations will be in favor of the contractor if the specifications are written by the owner or its representative and the contractor's interpretation was reasonable.

2.2.2 Latent Errors

The owner may not escape liability if the error is latent and detectable only after an exhaustive investigation. The implied warranty normally cannot be obviated by general clauses in the contract requiring the contractor to inspect the site, study the specifications, inform itself about the requirements for the work, or assume responsibility for work until completion and acceptance.[9]

The *Bromley* board[10] ruled that contractors are not expected to uncover all hidden ambiguities or errors and will not be held responsible for overlooking these latent errors in the bid documents. On June 9, 1969, the Army Materiel Command issued an Invitation for Bid to replace the roof on Building 35 at the Watervliet Arsenal. The subject contract was awarded to Bromley Contracting Company on July 18, 1969 in the amount of $179,834.

One of the drawings (No. 4235-35) furnished by the government described the ridge heights of the roof monitors as approximately seven feet. The scale of the drawings was 1 inch = 1 foot-0 inches, and the ridge height measured 6 inches on the drawing. The drawing contained six General Notes in the lower right hand corner. Note 5 read, "*Contractor shall verify all*

[8] *Helene Curtis Industries, Inc. v. United States*, 312 F.2d 774 (Ct. Cl. 1963).
[9] See, *e.g.*, *Nat Harrison Assoc. v. Gulf States Utilities Co.*, 491 F.2d 578 (5th Cir. 1974).
[10] *Bromley Contracting Company*, ASBCA 14884, 16045 72-1 BCA ¶ 9252 (1972).

dimensions and conditions prior to submission of bid." The ridge was actually about 11 feet in height.

Employees from Bromley Contracting visited the roof site prior to bidding as required but failed to notice the variance between the actual elevation of the roof monitors and that shown on the drawings. Bromley claimed that the drawing error caused it to underestimate the actual surface area of the roof monitors, and that it was required to expend $43,371 in excess of its bid price to complete the work properly.

The government admitted the drawing was in error with respect to the ridge height of the roof monitors and was not checked by its engineering staff due to lack of manpower. The government contended, however, that the Invitation for Bid required the contractor to verify the roof dimensions prior to bid.

The Court of Claims found Bromley's position to be correct stating:

> *Contractors are businessmen usually pressed for time and consciously seeking to underbid competitors. Consequently, they estimate only those costs which they feel the contract terms will permit the government to insist upon in the way of performance. They are not expected to ferret out hidden ambiguities or errors in the bid documents and are protected if they innocently construe in their own favor an ambiguity equally susceptible to another construction or overlook an error.*

Information contained in drawings and specifications constitute a positive representation that the contractor is justified in relying upon. When this information is defective or ambiguous, the contractor may be entitled to recover the additional cost of performance resulting from the defects or ambiguities.

2.2.3 Adequacy of the Specifications to Yield Satisfactory Performance

It is also well settled that an owner implicitly warrants the adequacy of its specifications. In *Luria*,[11] the United States Court of Claims defined the owner's warranty of it specifications, as follows:

> *It is well-settled that when the Government orders a structure to be built, and in so doing prepares the specifications prescribing the character, dimension, and location of the construction work it implicitly warrants that if the specifications are complied with, satisfactory performance will result…. When as here, defective*

[11] *Luria Bros. & Co. v. United States*, 369 F.2d 701,707 177 Ct.Cl. 676 (1966); See also *Pennsylvania v. W.P. Dickerson & Son, Inc*., 400 A.2d 930 (Pa. Commonwealth Ct. 1979), where the contractor was entitled to recover additional costs and expenses for removing and testing beams constructed in accordance with State specifications.

> *specifications delay completion of the contract, the contractor is entitled to recover damages for defendant's breach of this implied warranty.*[12]

The *Luria* court also determined that the government had further breached the contract by failing to make timely revisions and by imposing an unreasonable trial and error method of excavation upon plaintiff.[13]

With respect to "results" and "performance" contracts, *i.e.*, the principal object of a contract is to obtain a specific result, the risk of accomplishing the result generally lies with the contractor.[14] However, when the contract must perform according to detailed plans and specifications, the owner is responsible for the result if the contractor follows those plans and specifications. The underlying premise is that the owner's knowledge and control over the project is superior to that of the contractor.

ACE Constructors, Inc. entered into a contract with the United States Army Corps of Engineers to build a structure at Biggs Army Airfield in Fort Bliss, El Paso, Texas. The contract set forth two methods of measuring the smoothness of the contracting paving–straight-edge and profilograph testing–the latter being the more expensive option. ACE bid using the straight-edge method, which was less expensive, asserting that profilographic testing was optional under the contract. However, the Corps required profilographic testing until it eventually agreed that straightedge testing was better suited for the project. The court determined that the specification was defective because the project was not suited for profilographic testing. ACE was therefore entitled to its additional costs based on defective specifications.[15] ACE also recovered its additional costs when the Corps required it to use a more expensive type of concrete technique, slip-form paving, rather than fixed-form paving, the type on which it based its bid. The court determined that the Corps' design specification was defective.

2.2.4 Liability for Sole Source of Supply or Subcontractor

When an owner specifies a component material or the use of a specific subcontractor, the contractor may have entitlement to recovery of its damages if that component material fails or the subcontractor does not perform. The rationale is that the contractor did not have the opportunity to evaluate the suitability of the component material or the subcontractor's capability, and that bids would be higher if the contractor retained those risks.[16] However, the owner may not be liable if it warrants that the subcontractors have the *ability* to do the work, but

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[12] Id. at 707-08.
[13] Id. at 708.
[14] See, *e.g.*, *Lewis v. Anchorage Asphalt Paving & Co.*, 535 P.2d 1188, 1196 n.19 (Alaska 1975); *Kansas Turnpike Auth. v. Abramson*, 275 F.2d 711(10th Cir.), cert. denied 363 U.S. 813 (1960).
[15] *ACE Constructors, Inc. v. United States*, 499F.3d 1357 (Fed. Cir. 2007).
[16] See, *e.g.*, *Appeal of Jacksonville Shipyards, Inc.*, ASBCA No. 32,300 (July 11, 1986); *Appeal of Amos & Andrews Plumbing, Inc.*, ASBCA No. 29,142 (April 23, 1986).

not the *willingness* to perform the work. For example, the government-identified four approved manufacturers for a bonding process of rubber blocks to metal plates for shock mounts on missile containers. None of the subcontractors were able or willing to perform the work. The contractor requested a time extension, which the government denied. The Court of Claims held in favor of the government. However, the Court also stated:

> *To be sure, the rule would be otherwise if the delay resulted from circumstances with respect to which the Government bore the risk. Thus, for example, if it had been the case here that the Government had selected the subcontractor or had vouched for the competence of the one selected, then delays attributable to that subcontractor's technical problems (in doing the work) would remain within the Government's sphere of responsibility."*[17]

2.2.5 Liability for Differing Site Conditions

The owner may be liable for increased contractor costs that result from site conditions that differ materially from those represented in the contract documents (a Type I differing site condition). The contractor must meet the following requirements to successfully recover its increased costs as a result of a Type I differing site condition under a federal contract:

1. The contract documents must have affirmatively indicated or represented the subsurface or latent physical conditions which form the basis of plaintiff's claim;

2. The contractor must have acted as a reasonably prudent contractor in interpreting the contract documents;

3. The contract must have reasonably relied on the indications of subsurface or latent physical conditions in the contract;

4. The subsurface or latent physical conditions actually encountered within the contract area must have differed materially from the conditions indicated in the same contract area;

5. The actual subsurface conditions or latent physical conditions encountered must have been reasonably unforeseeable; and

[17] *Franklin E. Penny Co. v. United States, 524 F2d 668, 678;* also see, *e.g., General Ship Corp. v. United States, 634 F. Supp. 868 (D. Mass. 1986),* where the court found that the governments designation of a specific subcontractor does not shift the entire risk of the subcontractor's poor performance to the Government.

6. The contractors claimed excess costs must be shown to be solely attributable to the materially different subsurface or latent physical conditions within the contract site.[18]

Contractor often obtain recovery for Type II differing site conditions, which are:

> *Unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.*[19]

Federal government, some state and local government, and many private contracts contain a "Changed Conditions" clause in its construction contracts that allow recovery for "Type I" and "Type II" differing site conditions.

2.2.6 Liability for Delay as a Result of Defective Specifications

In *Beard Family Partnership v. Commercial Indem. Ins. Co.*,[20] the court held that an owner impliedly warrants the adequacy of the plans it supplies and that it requires its contractor to follow. An owner breached its construction contract with its contractor when the inadequacies of the owner's plans, obtained through the owner's retained engineer, caused delay in the work's completion. Here, the jury heard evidence as to various sources of delay in the project including the requirement to adjust the plans because of miscalculations in the elevations. Also, the contractor testified that the plans were simply insufficient and contained too many mistakes.

Delay damages resulting from defective and deficient specifications have also been awarded in the following cases:

- *Essex Electro Engineers v. Danzig*, 224 F.3d 1283 (Fed. Cir. 2000) (delay damages arising from the impact of defective government-provided drawings);
- *Public Constructors, Inc. v. New York*, 390 N. Y.S.2d 481 (App. Div. 1977)(misrepresenting subsurface condition and failure to disclose boring logs and other subsurface information);
- *Chaney and James Construction Company, Inc. v. United States*, 421 F.2d 728 (Ct. Cl. 1970)(defective specifications for elevation of roof leader drain pine, location of fire pump drains, and roof washdown system*);*

[18] *Youngdale & Sons Constr. Co. v. United States*, 27 Fed Cl. 516 (1993).
[19] 48 C.F.R. 52.236-2 (2004) (federal differing site condition clause).
[20] *Beard Family Partnership v. Commercial Indem. Ins. Co.*, 116 S.W.3d 839 (Tex. App. 2003).

- *H. John Homan Co., Inc. v. United States*, 418 F.2d 522 (Ct. Cl. 1969) (defective site survey);
- *County Asphalt Inc. v. New York*, 311 N.Y.S.2d 650 (Ct. Cl. 1969) (State responsible for damages resulting from its gross misrepresentation of the quantity of select borrow required for the project);
- *J.T. Hedin Construction Company Inc.*, 347 F.2d 235 (Ct. Cl. 1965)(faulty specifications for piles, spread footings and sewer system*);* and
- *Laburnum Construction Corporation v. United States*, 325 F.2d 451 (Ct. Cl. 1963)(improper alignment for proposed 16 inch pipeline).

2.2.7 Certain States Do Not Recognize Breach of Implied Warranty Claims

Notwithstanding this significant body of case law regarding the owner's implied warranty regarding the accuracy of the specifications and drawings, in 2006, the United States District Court for the Western District of Pennsylvania[21] has ruled that Pennsylvania law does not recognize a breach of implied warranty claim based on construction plans and specifications, the Court found no authority to support a claim for breach of implied warranty under Pennsylvania law that the project was capable of being constructed within those plans and specifications. However, the liability for architects with respect to preparation of plans and specifications has been upheld by the Pennsylvania judiciary on breach of contract and negligence theory.[22]

[21] *Alstom Power, Inc. v. RMF Industrial Contracting, Inc.*, 2006 U.S. Dist. LEXIS 8019 (March 2, 2006).

[22] See, *e.g., Henon v. Vernon*, 1918, 68 Pa. Super. 608; 6 C.J.S. Architects § 19 (1937); *Bloomsburg Mills, Inc v. Sordoni Construction Co.*, 25 A.L.R.2d 1086; 401 Pa. 358, 164 A.2d 201 (1960); *Hill v. Polar Pantries*, 219 S.C. 263, 64 S.E.2d 885, 25 A.L.R.2d 1080.

3. THE OWNER'S FAILURE TO DISCLOSE VITAL INFORMATION TO THE CONTRACTOR

The owner may also breach the implied warranty of suitability of the finished product or to the performance of the contract by omitting vital information. If the owner possesses superior knowledge that is vital to the contractor's performance, and that information is not reasonable available to the contractor, then the owner must disclose that information. If the owner fails to disclose that vital information, the contractor may recover its increased costs.[23] Situations where owners have a duty to disclose include:

- Active concealment of specific information on matters of substance;
- Statements made by the owner which would be materially qualified by other information in the owner's possession or which might mislead the contractor in the absence of the disclosure; and
- Information that would have a material effect on the bid price while at the same time contractors are basing their bids on improper assumptions.

Conflicts often develop between the specifications, drawings, and the contract document. When the conflict is between the contract and the specification, the contract normally prevails. If the conflict is between the specifications and drawings, the specifications normally prevail. The drawings can be dominant if they provide for some detail not in the specification and if they are not in conflict with the specifications or the contract.

[23] See, *e.g.*, *Bradley Construction, Inc. v. United* States, 30 Fed. Cl. 507, 510 (1994); *Welch v. State*, 139 Cal App. 3d 546, 188 Cal Rptr. 726 (1983).

4. CONTRACTUAL TIME LIMITS MAY NOT BE AN ADEQUATE DEFENSE AGAINST EXTRA WORK CLAIMS DUE TO DRAWING REVISIONS

An electrical subcontractor was affected by drawing revisions on the construction of a coke battery.[24] During the course of the contract work, defendant made some 1,300 revisions to the original contract drawings, about 20 percent of which were made after the project completion date. As a defense to plaintiff's delay claim, defendant asserted that plaintiff had not complied with the contract extra work clause, which provided that claims for extra costs be made within 30 days after receipt of any drawing revision and, further, that no work was to be performed until written authorization was received from defendant. The trial court ruled that because of the massive changes and pressure placed on plaintiff by defendant to proceed with the work, defendant was estopped from relying on the extra work clause. In affirming this holding, the Third Circuit reasoned:

> *The defendant submitted a huge number of revisions that drastically changed the scope of the work. It then pressed the plaintiff to hurry and complete the work, which left the plaintiff with little time to compute costs and submit them. In addition, the plaintiff notified the defendant that it felt this situation required dispensing with the 30-day clause.*
>
> *Seen in this light, the district court's reference to the defendant's obligation to speak out makes sense. We cannot say that the court erred in concluding that a defendant that creates such a difficult situation for completion of the contract as that here and who has notice of the plaintiff's state of mind should speak out and say it intends the letter of some clause of the contract to be followed.*[25]

In addition, the owner may constructively change the contractual requirements of notice for defective plans and specifications if it approved payments for additional work for other claims where the same notice provisions were not adhered to by the contractor.[26]

[24] *E. C. Ernst, Inc. v. Koppers Co., Inc.*, 626 F.2d 324 (3d Cir. 1980).
[25] Id. at 330.
[26] See, *e.g., Transpower Constructors v. Grand River Dam Authority*, 905 F.2d, 1413 (10th Cir. 1990).

5. THE OWNER'S DEFENSES AGAINST SPEARIN

The owner's implied warranty to provide accurate and suitable specifications and drawings has been well established by the *Spearin* case for almost 100 years. Certain situations, however, can obviate the impact of *Spearin* and related decisions by imposing limitations on this implied warranty of the owner. Several examples of such situations follow.

5.1 DISCLAIMERS/ASSUMPTION OF RISK

In specific situations, parties to a contract can allocate, as they see fit, a particular risk of failure or error that is clearly understood by both parties. An owner may disclaim via clear, non-boilerplate, exculpatory language the usual warranty of its specifications and impose a specific risk to a contractor. For example, a contractor may unqualifiedly agree to design and construct a facility for the purpose of creating a particular result. That contractor "*assumes the risks attending the performance of the contract, and must repair and make good any injury or defect which occurs or develops before the completed work has been delivered to the other party*."[27] Thus, if the contractor is responsible for design and project outcome, the contractor, not the owner, is responsible for the faulty design and unsuitable product.

If such disclaimers are too general, however, they will not be enforced.[28] Likewise, if the disclaimers do not clearly warn the contractor of specific problems that could be encountered, the courts may not honor the disclaimers. Also, clear and fair disclaimers may override the owner's implied warranty if the contractor has been put on notice to include a price contingency in its bid.[29]

5.2 OWNER-PROVIDED INFORMATION

The owner may provide information on soils conditions, subsurface reports and tests, etc., without making any positive factual representations. They are only treated as factual if a reasonable contractor would treat them as such and would have been compelled to rely upon them in preparing its bid. For the contractor to recover damages, it would have to show that it had no practical access to the underlying data, no independent means of verifying such data, and it was not warned in clear, non-boilerplate language that the information was unreliable.

The owner would not have breached the implied warranty if (1) the contractor had equal access to underlying data and had an equal ability to form its own independent judgment on the matter,

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[27] See *Friederick v. Redwood County*, 190 N.W. 801, 802 (Minn. 1922); see also *McCree Co. v. State*, 91 N.W.2d (Minn. 1958); *Interstate Contracting Corp. v. City of Dallas*, 407 F.3d 708, 2005 U.S. App. LEXIS 6981 (5th Cir. 2005).

[28] See, *e.g.*, *Woodcrest Const. Co. v. U.S.*, 408 F.2d 395 (Ct. Cl. 1969).

[29] See, *e.g.*, *Flippin Materials Co. v. United States*, 312 F.2d 408 (160 Ct. Cl. 1963).

and (2) the contractor was clearly informed of the possible inaccuracy of the owner's information and advised to perform independent verification.

An example of an Agreement that provides limits on the reliability of information that has been provided by the owner to the contractor is shown below:

> ARTICLE 7 INSPECTION OF SITE, CONDITIONS, AND PLANS
>
> 7.1 Contractor represents that it has carefully examined and inspected all matters, conditions and circumstances affecting Contractor's proper and timely performance of the Work, including, without limitation, (i) the terms, conditions and obligations of this Agreement, (ii) the extent, nature and quality of the Work, (iii) the services, labor, materials and equipment necessary for the proper performance of the Work, (iv) the location and condition of the Site and its surroundings, and (v) the conditions under which the Work will be performed. Furthermore, Contractor represents that it has obtained all information available in connection therewith, and has fully examined and informed itself and its Subcontractors of all general, local and physical conditions which may affect its performance under this Agreement including, without limitation, all applicable laws, orders, codes, ordinances, and/or regulations, local labor requirements, prevailing wage rates, general working conditions in the area, ground and surface conditions, on-site security needs, access to and egress from the Site, disposal, handling and storage of all substances, materials and wastes, availability of housing, transportation laydown and the general topographic and geologic characteristics of the region. Contractor represents that it is fully aware of all existing conditions and has reviewed and acknowledges the results of all subsurface reports or tests, identified in or set forth in Exhibit E [any subsurface reports and/or information should be included in Exhibit E] hereto, and limitations including normal weather and climatic conditions, and all laws, ordinances, rules and regulations, Federal, State and local, affecting the performance of the Work. Contractor hereby waives any and all right to claim that conditions of the Site or other property in the vicinity give rise to or otherwise constitutes an excuse for delay or non-performance or the basis of a cost adjustment under this Agreement, except as provided in Article 8 of this Agreement.

7.2 Contractor represents that it has carefully studied in detail the job requirements and specifications provided in Exhibit E and all other documents and information furnished to it by Owner and that it is fully satisfied as to their correctness and adequacy for the proper and timely performance of the Work by Contractor.

7.3 Contractor recognizes that the Plant is to be constructed and operated in accordance with all local, state and federal environmental laws including those pertaining to water, air, solid waste, hazardous waste, and noise pollution. Contractor will comply with all such laws and with the rules, regulations and other requirements of the State of _____, the Federal Environmental Protection Agency, [modify as necessary for international contracts] and any and all other governmental authorities having jurisdiction over the environment or the relation of the Plant to the environment. Anything in this Paragraph 7.3 to the contrary notwithstanding, Contractor shall have the right to request a Change Order in order to comply with any environmental law, rule or regulations enacted, adopted or ratified subsequent to the date of this Agreement. The Contract Price and Schedule do not contemplate the discovery of any pre-existing hazardous materials at the Site. In the event any such materials are discovered, Contractor shall immediately notify Owner, Owner shall take such actions as appropriate and such discovery will be governed by Article 8 of this Agreement.

7.2 Having fully acquainted itself with the Work, the Site and its surroundings, and any risks in connection therewith, Contractor assumes full and complete responsibility for performing the Work for the compensation set forth in Exhibit B, Compensation, Payment and Taxes, and achieving Mechanical Completion by the Scheduled Mechanical Completion Date set forth in Exhibit C, Schedule of Completion. Contractor's failure to carry out the activities set forth in Articles 7.1, 7.2 and 7.3 hereof shall not relieve Contractor of any of its obligations under this Agreement.

Thus, if the contractor fails to conduct a reasonable site investigation,[30] or fails to avail itself of information that was known or should have been known to an experienced contractor,[31] it may

[30] See, *e.g., Conner Brothers Construction Co. v. United States*, 65 Fed. Cl. 657, 2005 U.S. Claims LEXIS 159 (2005); *Orlosky Inc. v. United States*, 64 Fed Cl. 63, 2005 U.S. Claims (LEXIS 28 (2005); *McCormick Constr. Co. v. United States*, 18 Cl Ct. 259 (1989); *Clark v. United States*, 5 Cl. Ct. 447 (1984); *Umpqua River Navigation Co. v. Crescent City Harbor Dist.*, 618 F.2d 588 (9th Cir. 1990); *Mojave Enterprises v. United States*, 3 Cl. Ct. 353 (1983).

not be entitled to recover its increased costs even if the plans and specifications are defective. Some courts have held such disclaimers to be enforceable,[32] barring a contractor's claim, and others have barred such exculpatory clauses.[33]

5.3 CONTRACTOR'S DUTY TO REPORT ERRORS AND AMBIGUITIES

The contractor may be contractually obligated to report errors or ambiguities in the specifications and drawings.[34] If this requirement exists, a contractor's failure to alert the owner of design problems before proceeding with the work may prohibit any claims for increased costs if the contractor proceeds with the work and then has to make changes to correct the work later.[35]

5.4 THE CONTRACTOR DID NOT RELY ON THE ERRORS OR AMBIGUITIES IN PREPARING ITS BID

The contractor may need to demonstrate that the costs that it estimated in preparing its bid were based on its interpretations of the specifications and drawings which later were determined to contain errors which cause the contractor to perform extra work.

5.5 UNJUSTIFIED RELIANCE ON OBVIOUS ERRORS OR AMBIGUITIES

The contractor will normally recover its damages because of latent or hidden errors or ambiguities. The courts have also found, however, that the contractor may not recover its additional costs as a result of obvious or patent errors or ambiguities for which it sought no clarification prior to contract award.[36] If the contractor knew or should have known about glaring errors or ambiguities, it should take proper steps by notifying the owner or stating exceptions in its bid. If the contractor should have known of the error, then the knowledge of the error is presumed, and the contractor may not recover its increased costs as a result of the error.[37]

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[31] See, *e.g.*, *Hardwick Bros. Co. v. United States*, 36 Fed. Cl. 347, (1996); *J.F. Shea v. United States*, 4 Cl. Ct. 46 (1983).

[32] See, *e.g.*, *Wiechmann Eng'rs v. State Dep't of Pub. Work*s, 31 Cal App. 3d 741, 107 Cal. Rptr. 529 (1973); *Cook v. Oklahoma Bd. Of Pub. Affairs*, 736 P2d 140 (Okla 1897).

[33] See, *e.g.*, *Stenerson v. City of Kalispell, 193 Mont. 8, 629 P.2d 773 (1981)*; *Jack B. Parson Constr. Co. v. State*, 725 P.2d 614 (Utah 1986).

[34] See, AIA document A201 (1997), section 3.2.1.

[35] See, *e.g.*, *Bethesda Lutheran Church v. Twin City Constr. Co.*, 356 N.W.2d 344 (Minn. Ct. App. 1984); *Buchman Plumbing Co. v. Regents of the Univ. of Minn.*, 298 Minn. 328, 215 N.W.2d 479 (1974).

[36] See, *e.g.*, *Allied Contractors, Inc. v. United States*, 254 U.S. 83 (1920); *Fortec Constructors v. United States*, 760 F.2d 1288 (Fed. Cir. 1985); *L. W. Foster Sportswear Co. v. United States*, 405 F.2d 1285 (Ct. Cl. 1969); *NVT Techs., Inc. v. United States*, 370 F.3d 1153 (Fed Cir 2004); *H&M Moving Inc. v. United States*, 499 F.2d 660 (Ct. Cl. 1974); Travelers Casualty & Surety of America v. United States, 74 Fed. Cl. 75 2006 U.S. Claims LEXIS 359 (Fed. Cl. 2006).

[37] See, *e.g.*, *Unicorn Mgmt. Corp. v. United States*, 375 F.2d 804 (Ct. Cl. 1967).

The contractor's obligation to conduct a reasonably thorough site investigation is ordinarily implicit in its duty to exercise reasonable care in preparing its bid. The contractor cannot later complain it was misled by the specifications if a site visit would have made the problem obvious.

In addition, a follow-on contractor is not entitled to relief for damages if it enters a second contract with knowledge that the drawings or specifications contained defects under a prior contract.

5.6 COMMERCIAL IMPRACTICABILITY

Although the owner may direct the method of contract performance, it has not created an implied warranty that such a method can be pursued by the contractor without difficulty. The owner only warrants that performance is possible within the state of art. The contractor's claim for commercial impracticability would normally be successful only if performance was achieved at exorbitant cost.[38]

5.7 SILENCE IN SPECIFICATIONS

The owner may entirely omit from the specification any reference to a condition or requirement for a particular construction method, as long as it is not withholding specific data on matters of substance.[39] The contractor is then left to draw its own inferences, determine physical conditions, and devise its own construction methods, assuming the contract documents are sufficiently comprehensive to lead to a complete and functional project. The owner is protected from liability if the cost of the contractor's work does not turn out as anticipated.

5.8 CONTRACTOR PARTICIPATES IN THE PREPARATION OF SPECIFICATIONS

The contractor jeopardizes its recovery for defects in the drawings and specifications if it prepared[40] or helped to prepare such documents, or proposed additions or substitutions that were eventually incorporated into the contract.

5.9 CONTRACTOR USES ITS OWN METHOD

If the contractor has the option of selecting the construction method, but the owner hampers the use of the selected method, the contractor may recover its damages. If a method is recommended, however, and the contractor ignores the owner's advice and instead uses its own method, the contractor may not recover. Some contracts give the owner the right to change the contractor's "*method, manner or sequence of performing the Work.*" The owner should be aware

[38] See, *e.g., Intercontinental Mfg. Co. Inc. v United States*, 4 Cl. Ct. 591 (1984).
[39] See, *e.g., Helene Curtis Industries, Inc. v. United States*, 312 F.2d 774 (Ct. Cl. 1963).
[40] See, *e.g., Mobile Hous. Env't v. Barton and Barton*, 432 F. Supp. 1342 (D. Colo. 1977).

that such changes may increase the contractor's cost or time of performance, and the contractor may request additional costs or time for this type of change.

5.10 MINOR ERRORS

If the contractor's problems are created by only minor inaccuracies or discrepancies in the drawings and specifications, such problems should normally be handled through the changes clause. Most rulings have held that it is unrealistic to hold owners to a standard of absolute perfection; experienced contractors should include a contingency in their bid for minor errors.[41]

5.11 CONTRACTOR DEVIATES FROM PLANS AND SPECIFICATIONS

A contractor may not be able to recover its increased costs as a result of a claimed breach of implied warranty of the owner's plans and specifications if it deviated from those plans and specifications.[42] Even if the owner's plans and specifications are clearly defective, courts may hold that the contractor assumes the risk of any deviation from the plans and guarantees the suitability of the result.

For example, a court upheld a contractor's termination after a floor slab that it installed substantially cracked. Even though the court found that the government's specifications were defective, the court found that the contractor was not entitled to any relief because it installed reinforcing steel under rather than in the slab as called for in the specifications.[43]

5.12 CONTRACTOR DID NOT PROTECT ITS WORK

The owner's implied warranty ordinarily covers only suitability of the drawings and specifications to ensure the structural integrity of the completed work. It does not relieve the contractor of its responsibility of devising sound methods of protecting its partially completed work from deterioration or collapse. If the owner, however, dictates specific methods of temporary support and protection, and these prove to be inadequate, the contractor may recover its damages.

5.13 CONCLUSION

Unless the contract properly disclaims them or the drawings and specifications are of a "performance" nature, the owner typically makes two implied warranties in furnishing specifications, drawings, and other contract documents to a contractor: (1) that they are accurate,

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[41] See, *e.g., Wells Bros. Co. v. United States*, 254 U.S. 83 (1920).

[42] See, *e.g., Al Johnson Constr. Co. v. United States*, 854 F.2d 467 (Fed. Cir. 1988); *W.H. Lyman Constr. Co. v. Village of Gurnee*, 475 N.E.2d 273 (111. App. Ct. 1985); *Appeal of DeLaval Turbine, Inc.*, ASBCA No. 21,797, 78-2 BCA (CCH) ¶ 13,521 (Oct. 27, 1978).

[43] See *Mega Construction Co. v. United States*, 29 Fed Cl. 396.

and (2) that the specified materials and methods are suitable to produce the intended result. Although contractors should take every precaution to preserve the implied warranty of the accuracy and suitability of the specifications and drawings, the owner can, using carefully constructed contract language, transfer certain risks to the contractor.

6. OPTIONS FOR MITIGATION

The responsibility for errors and omissions in construction contract documents traditionally has been tied to the party that drafted the documents. The contract documents, which include contract terms and conditions, specifications, and drawings, are usually prepared by the owner or the owner's architect/engineer. The owner is generally held to have impliedly warranted to the contractor that the documents are accurate and suitable for use. An experienced contractor cannot, however, consciously overlook patent defects or rely on this implied warranty when it knows or should have known that such documents could not produce the desired end result.

In the case of a design/build contract, the contractor is also performing the role of the architect/engineer and the constructor. The contract documents prepared by the owner in this situation will usually include the contract language, specifications, and preliminary design criteria and drawings. The contractor's scope is to interpret the owner's requirements, finalize the design documents, and then construct the facility. Depending on the language of the contract, the owner's approval of the final design and completed facility may occur at various milestones during the project with considerable owner participation in design reviews. In the case of a turnkey project, however, the owner's approval may not occur until the entire facility is completed and all systems have been inspected, started, and determined to be functional and consistent with the owner's specifications.

Perfect contract documents and flawless designs are most uncommon. Given the complexity of the construction process and state-of-the-art advances in technology, it should not be surprising that contract documents often fail to adequately define the work to be performed. There is, however, a critical and costly difference between a normal incidence of errors and serious design flaws that cause substantial delays and cost increases.

Both owners and contractors have opportunities to mitigate the problems resulting from defective and deficient contract documents. Awareness of these options for mitigation not only lessens the likelihood of disputes but also increases the chances for a financially successful project. The following discussion can serve as a set of guidelines for both parties to follow during the design development, contract formation, and contract performance phases of a project.

6.1 OWNER'S OPTIONS FOR MITIGATION

6.1.1 Design Development

The following guidelines illustrate the care that should be taken in the preparation of the design documents by the owner and its architect/engineer before the construction contract is prepared and awarded.

- Provide adequate lead time for the design process;

- Award design contracts only to firms with adequate staff and proven track records for similar work;

- Provide sufficient compensation for critically important elements of the design effort, such as top-level management attention, periodic design reviews, value engineering studies, and constructability reviews;

- Require the designer to provide a certificate of insurance covering errors and omissions;

- Require the designer to demonstrate an effective internal Quality Assurance (QA) system;

- Carefully determine whether the end result (performance) or the design detail is more important. If the end result is the controlling criteria, use performance specifications and permit the contractor to choose its own methods of achieving the end results;

- Provide clear, unambiguous requirements for design specifications set forth in great detail allowing complete certainty as to the end product which can be achieved by any capable and experienced contractor. Recognize the owner's exposure, based on the Spearin Doctrine, to the extent that it retains liability and responsibility for design omissions, errors, and deficiencies in the drawings and specifications; and

- Thoroughly review and approve the design documents[44] and any scale models before construction begins to avoid expensive field changes after installation.

6.1.2 Contract Formation

Preparation of the actual contract language by the owner should convey the requirements and risks retained by the owner or transferred to the contractor. The following guidelines should be examined during the drafting of the contract to mitigate design-related problems.

- Avoid lump sum construction contracts if the design is relatively incomplete;

- Draft contracts with equitable language and allocate risks to the party that is best able to control such risks;

[44] Usually, the owner's approval of design documents does not relieve the engineer of the responsibility of a functional and workable design.

- Avoid using off-the-shelf specifications, general contract conditions, and other contract provisions that have not been carefully reviewed and modified for specific project risks and requirements;

- Recognize that the implied warranty of the adequacy of the drawings and specifications cannot be obviated by general contract clauses requiring the contractor to inspect the site, study the drawings and specifications, and assume complete responsibility for the work until completion and acceptance;

- Determine if the contractor is best able to assume responsibility for site conditions that may affect the contractor's performance. If so, require and provide an adequate amount of time for the contractor to perform a site investigation. Reveal all existing site conditions data and clearly state uncertainties in the data and the contractor's responsibilities for verification using clear, non-boilerplate language. Consider requesting the contractor to put a contingency in its bid to cover the uncertainty of site conditions if the intent is to shift this risk to the contractor;

- Clearly state in the design/build contract using unambiguous, non-boilerplate language the intent of a performance specification to shift the project design responsibility to the contractor. Do not provide excessive design details that would take away the contractor's ability to utilize its own judgment, experience, and expertise to achieve the desired end results;

- Disclose all relevant information to the contractor and inform the contractor of inaccurate or misleading data so that the contractor does not rely on this information in preparing its bid;

- Inform the contractor during bid preparation of any special methods of which the contractor may not be aware but will be required to achieve satisfactory end results;

- Use the common and normal meaning of words appropriate for the trade;

- Identify the order of precedence in the hierarchy of contract documents to identify the controlling document should conflicts or ambiguities exist, *i.e.*, do specifications take precedence over detailed drawings? Avoid assigning documents a low level of precedence and then referencing the same documents in a higher level document, thus causing a precedence roll-up problem;

- Include adequate cross-referencing for all specification requirements contained in various sections of the design documents;

- Require the contractor to state all of its reservations and qualifications to the requirements in its bid;
- Clearly state all mandatory minimum requirements in the contract. Avoid optional or preferential items or require alternate pricing for options;
- Require the contractor to clearly identify all deviations from the specifications and "or equal" substitutions in its bid;
- Clearly identify any required variations from standard industry practice;
- Avoid the use of addenda as much as possible because excessive use greatly increases the likelihood of confusion; and
- Consider requiring performance and payment bonds from all contractors and subcontractors.

6.1.3 Contract Performance

The owner has opportunities to mitigate problems associated with the contract documents during contract performance.

- Provide timely responses to the contractor's requests for information and clarification;
- Ensure that adequate and equitable adjustments are made to the contractor's compensation in the event that design defects or deficiencies occur which impact the construction of the project;
- Avoid directing the contractor to proceed with the performance of the work in the face of defective construction drawings and specifications unless later corrective measures will be less costly than the costs due to delays caused by correcting the defects;
- Carefully evaluate "equal" materials or equipment and consider paying extra if more costly preference items are required; and
- Include a reasonable allowance in the overall project budget for normal design imperfections.

6.2 CONTRACTOR'S OPTIONS FOR MITIGATION

6.2.1 Contract Formation

The contractor should carefully examine the contract provisions, drawings and specifications with the intent of mitigating the risks associated with possible defects and deficiencies.

- Seek clarification in a timely manner if a drawing or specification is obviously defective or deficient or if an ambiguity creates a doubt about the work. Failure to seek clarification may make the contractor liable for its erroneous interpretations and may prevent the contractor from recovery of its damages for a subsequent change;

- Record notes of any discussions with the owner regarding any requests for information, clarification or interpretation of the specifications and drawings and the owner's response;

- Do not volunteer to replace defective specifications except on the condition that the owner accepts the responsibility for the substitutions;

- Read the entire contract and specifications as a whole and in detail. Include a review by the project manager, technical specialists, and the cost/schedule control manager who will be performing the work. Identify and evaluate all referenced specifications and drawings even if not attached or appended;

- Avoid accepting complete discretion in the selection of the method of performance for a hybrid design/performance specification unless the owner expressly agrees to assume the risk of failure to attain performance goals;

- Attempt to place the design/build contractor's bid design in the highest order of precedence in the contract documents and require the owner to thoroughly review and approve the design documents. The contractor should recognize that it may be held to the performance suggested by its proposal;

- Request from the owner all important information that may have been omitted from the specifications. This imposes an affirmative obligation to disclose all such information that the owner possesses;

- Make certain that any caveat language or disclaimers insisted on by the owner are general. If unsuccessful, provide sufficient contingency for specific disclaimers in the bid. Elect not to bid the project if the risks are unreasonably high;

- Conduct independent site investigations of conditions that the owner provides as information but disclaims the warranty of the accuracy of such information. Document all findings of the site investigation and rely on these findings in preparing the bid;

- Document the basis for bid including all assumptions, bid clarifications, reservations, and pre-award meetings with the owner. Preserve a copy of all bid documents and estimates, including a copy of the drawings that existed at the time of contract award;

- Make a written record of efforts in discovering obvious defects in the plans and specifications, and in dealing with the owner once defects are discovered. Document any problems associated with efforts to examine site conditions, such as insufficient time, poor weather conditions, or materials that conceal the site;

- Set-up separate accounting cost codes to track of any extra work performed as a result of problems with the specifications and drawings;

- Make inquiries into whether any specific problems might result from using the owner's specifications;

- Be circumspect about using specifications that appear economically impractical to use;

- Evaluate cost impacts of sole source vendor requirements; and

- Ask for postponements of bids for follow-on contracts containing defective specifications until the problems are remedied.

6.2.2 Contract Performance

Problems will develop during contract performance. The following guidelines should be followed to assure equitable recovery of the contractor's damages.

- Seek clarification as soon as the need becomes apparent;

- Provide letters of timely notice for all cost increases and schedule delays resulting from problems with the drawings and specifications;

- Do not deviate from the drawings and specifications without a written change order;

- Obtain design approvals from the owner before materials are purchased and installed;
- Clearly identify the subcontractor's scope of work where trade responsibilities may overlap. Do not award subcontracts too early while the design is being finalized since the costs for design changes may be negotiated at a disadvantage;
- Clearly establish specific cost accounts to capture impacts resulting from design-related problems; and
- Clearly identify schedule impacts resulting from design-related problems.

6.3 CONCLUSION

Following these guidelines will not ensure a dispute-free project. Latent errors and ambiguities may still exist and unanticipated problems may occur. A clearer understanding of the requirements and risks of both the owner and the contractor, however, will result from careful consideration of these options for mitigation and may prevent the project from being completed in the courtroom.

About the Author

***Richard J. Long, P.E.**, is Founder and CEO of Long International, Inc. Mr. Long has over 40 years of U.S. and international engineering, construction, and management consulting experience involving construction contract disputes analysis and resolution, arbitration and litigation support and expert testimony, project management, engineering and construction management, cost and schedule control, and process engineering. As an internationally recognized expert in the analysis and resolution of complex construction disputes for over 30 years, Mr. Long has served as the lead expert on over 300 projects having claims ranging in size from US $100,000 to over US $2 billion. He has presented and published numerous articles on the subjects of claims analysis, entitlement issues, CPM schedule and damages analyses, and claims prevention. Mr. Long earned a B.S. in Chemical Engineering from the University of Pittsburgh in 1970 and an M.S. in Chemical and Petroleum Refining Engineering from the Colorado School of Mines in 1974. Mr. Long is based in Littleton, Colorado and can be contacted at rlong@long-intl.com and (303) 972-2443.*

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