Spearin and Thorn: Transatlantic Design Liability in EPC Contracting

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Owners pursuing complex infrastructure projects often employ engineering, procurement and construction ("EPC") contractors to both design and construct facilities. In theory, EPC contracts offer the owner the ability to offload the maximal amount of project risk by delegating the design, construction and commissioning of a facility. While the forms and language of these contracts may be similar on both sides of the Atlantic, the risk profiles of such projects are altered by divergent rules of contractual interpretation and precedent, altering the calculus of a project in ways that may be unanticipated by international parties engaged in markets in the U.S. and around the world[1]. The potential for surprise stems from the interplay of three concepts: the designer's standard of care, the U.S.'s Spearin Doctrine and English law's fitness for purpose warranty.

The Standard of Care for Design Professionals

In both the U.S. and under English law, EPC contractors generally assume responsibility for the design element of the project (forming part of the E in EPC – engineering).

Designers are considered professionals who provide their services according to a standard of care. In the U.S., this standard is an implied term of their contracts, which has evolved through case law and is affirmatively reflected in the standard contract forms created by professional organizations such as the American Institute of Architects ("AIA").

As expressed in AIA standard contract form B101-2017,

> *The Architect shall perform its services consistent with the professional skill and care ordinarily provided by architects practicing in the same or similar locality under the same or similar circumstances. The Architect shall perform its services as expeditiously as is consistent with such professional skill and care and the orderly progress of the Project.*

Under English law, designers owe duties to their employer, both in tort (to exercise reasonable care and skill) and (almost always) in contract – either as an express term or an implied term (either implied because the term would be "*so obvious as to go without saying or to be necessary for business efficacy*" *Marks and Spencer plc v BNP Paribas* [2015] UKSC 72 or implied under s13 of the Supply of Goods and Services Act 1982).[2]

The standard of care which the designer will need to live up to, in order to prevent any liability arising in the tort of negligence, is that which the "*ordinary competent man exercising that particular art*" would demonstrate (*Bolam v Friern Hospital* [1957] 1 WLR 582). The "post" which the designer occupies may be relevant (so a "senior designer" might be held to a higher standard), however the

actual experience of the designer would not be salient (*Wilsher v Essex Area Health Authority* [1987] 2 W.L.R. 425).[3]

The standard of care required under a contract will depend on the drafting of the contract itself – English law places primacy on contractual autonomy, and so the drafting chosen by the parties. A straightforward obligation to "exercise reasonable care and skill" is likely to closely approximate the requirements of the law of tort (set out above). However, parties are free to amend their contracts to reflect whatever standard they would like their designer to live up to. By way of example:

- The RIBA standard form Professional Services Contract requires the exercise of "the reasonable skill, care and diligence to be expected of an Architect/Consultant experienced in the provision of such services for projects of a similar size, nature and complexity to the Project";

- the NEC4 Professional Services Contract provides that "the Consultant's obligation is to use the skill and care normally used by professionals providing services similar to the services";
- The 2018 LOGIC standard form for Construction requires that any design work required to be undertaken by the contractor be "with all due care and diligence and with the skill to be expected of a reputable contractor experienced in the types of work to be carried out under the CONTRACT";
- The FIDIC Silver Book provides that the "*Design shall be prepared by designers who … (a) are engineers or other professionals, qualified, experienced and competent in the disciplines of the design for which they are responsible*"; and
- In *Rolls-Royce v Ricardo Consulting Engineers* [2004] 2 All ER (Comm) 129, the Contract being considered required design services to be "*of first-class quality*", which the court considered to require that services be of "*a standard which would not be exceeded by anyone else who might actually have been engaged to provide them*."

Though phrasing distinctions warrant conversation elsewhere, the duty imposed is broadly similar. The effect of this duty, however, is significantly different in the U.S. and under English law, thanks to divergent case law. In the U.S., this duty is often transmuted by application of the implied warranty imposed by the Spearin doctrine; while under English law, common fitness for purpose obligations run parallel to, or supersede, the professional standard in crucial instances. The practical effect of these differences is that, absent certain mitigating language, EPC contractors are more insulated from design risk in the U.S. than under English law. As international EPC contracting forms and practices converge, an understanding of these differences is essential for owners and contractors operating in the EPC realm.

<u>Spearin</u>

In the U.S., the Spearin Doctrine provides that where the owner supplies the contractor with design documents, they carry an implied warranty of accuracy. The owner's delivery of defective design specifications and drawings is thus an actionable breach of contract.

In *United States v. Spearin*, 248 U.S. 132, 39 S. Ct. 59, 63 L. Ed. 166 (1918) the U.S. government contracted with Spearin for the construction of a dry dock at the Brooklyn Navy Yard. The work required diversion and relocation of a section of sewer, which the government-supplied design documents detailed. Spearin performed this portion of the work, which was accepted by the government. While finishing construction of the dock, a heavy downpour broke the replacement sewer, flooding the excavation. The government refused responsibility and terminated the contract when Spearin refused to proceed. The Supreme Court of the United States restated the "well-

settled" rule of risk apportionment that "Where one agrees to do, for a fixed sum, a thing possible to be performed, he will not be excused or become entitled to additional compensation, because unforeseen difficulties are encountered." But, the Court continued, "if the contractor is bound to build according to plans and specifications prepared by the owner, the contractor will not be responsible for the consequences of defects in the plans and specifications." *Id.* at 136.

In the years since, Spearin has been adopted or acknowledged by nearly every state and is a regular focus of government contracts disputes.

Evolution of Spearin

Over time, a distinction emerged in the doctrine between "design" and "performance" specifications. Design specifications are those "*in which are stated precise measurements, tolerances, materials, in-process and finished product tests, quality control and inspection requirements, and other information*." *Aerodex, Inc.*, ASBCA No. 7121, 1962 B.C.A. ¶ 3492 at 17,822. In contrast, performance specifications are those "*in which are stated the performance characteristics desired for the item, e.g., a vehicle to attain a speed of 50 miles per hour. In such specifications, design, measurements, etc. are not stated nor considered to be of importance so long as the performance requirement is met*." Id. In other words, "*Design specifications explicitly state how the contract is to be performed and permit no deviations. Performance specifications, on the other hand, specify the results to be obtained, and leave it to the contractor to determine how to achieve those results*." *Stuyvesant Dredging Co. v. United States*, 834 F.2d 1576, 1582 (Fed. Cir. 1987) (citation omitted). The implied warranty applies to design specifications but not performance specifications.

At first glance, this design/performance dichotomy seems to provide an effective means of sidestepping Spearin liability, but the picture is more nuanced. While Spearin liability can certainly be limited to great extent, possibly even eliminated with precise drafting, courts have come to a consensus that most specifications are hybrid specifications, that "*the distinction between design and performance specifications is not absolute*" and as such "[c]*ontracts may have both design and performance characteristics*." *Blake Const. Co. v. United States*, 987 F.2d 743, 746 (Fed. Cir. 1993). In such cases, Spearin liability still attaches to those elements which a court determines are design characteristics.

Spearin in the EPC Context

From the owner's perspective, a major consideration in selecting an EPC contract method is to allocate the risk of design errors to the contractor. An owner engaging in an EPC contract is thus likely expecting to characterize the EPC contract as a performance contract in order to offload potential Spearin liability.

Complicated EPC projects, however, are likely to require provision of some design criteria. The limited body of American case law addressing Spearin liability in contexts where the contractor provides or has substantial input into the design, such as standard design-build contracts or Construction Manager at Risk ("CMAR") projects, have found the owner liable for "*conceptual*" and "*preliminary*" designs[4], partial designs[5], bridging documents, methods of performance[6], geotechnical conditions[7], and similar fragmentary or inchoate design documents. Spearin liability is thus a baseline consideration that needs to be factored into the risk profile of any construction project being pursued under American law.

Fitness for Purpose

Under English law, by contrast, construction contracts frequently carry a promise that the resulting project will be capable of being used for its intended purpose. This warranty may be implied (where the employer makes known a particular purpose, the contractor holds itself out to perform the work, and the employer relies on the contractor's skill and judgment) or, more often, an express contractual term.[8]

The fitness for purpose warranty will be more likely to be included in a contract as the degree of design responsibility placed on the contractor increases, reaching its zenith in the EPC form.

The application of this warranty can be seen in the UK Supreme Court's consideration of the interplay between the designer's standard of care and the fitness for purpose warranty in *MT Højgaard A/S v E.On* [2017] UKSC 59.

In that case, E.On had engaged MT Højgaard ("MTH") as EPC contractor for the design and construction of 62 offshore wind turbines. The contract required the design of the turbine foundations to conform to the international standard DNV-OS-J101, promising a 20-year service life. It also required, however, that the works be "*fit for its purpose as determined in accordance with the Specification using Good Industry Practice*." After construction, an error was discovered in the DNV standard, which drastically shortened the life of the foundations. E.On sued MTH for costs associated with remedial work on the foundations, claiming that the fitness for purpose guarantee had encompassed the identified 20-year lifespan and that MTH was liable, even if it had exercised due care and skill in designing the turbines and complied with the DNV standard.

Following conflicting decisions in the High Court and Court of Appeal, the Supreme Court held that the standard of care and the fitness for purpose warranty could be concurrently imposed on MTH without contradiction, with the obligation to design and build turbines which were fit for purpose constituting the superior obligation.

The Supreme Court considered a number of previous decisions, such as *Thorn v The Mayor and Commonalty of London* (1876) 1 App Cas 120, where a contractor constructed a bridge according to defective specifications for the foundations that had been provided by the employer. The contractor sued for the increased expense and delay required to rectify the design, claiming the specifications represented an implied warranty that the bridge could be constructed according to the original specifications. The House of Lords unanimously rejected this English law Spearin.

Similarly, in *The Hydraulic Engineering Co Ltd v Spencer and Sons* (1886) 2 TLR 554 (which was more on point in the context of the facts of *MT Højgaard A/S v E.On*) the contractor was liable for the fact that iron cylinders were incapable of withstanding their warranted pressure, even though the designs for the cylinders were directly provided by the employer.

On the basis of these, and other, judgments, the Supreme Court concluded that:

> "*… the message from decisions and observations of judges in the United Kingdom and Canada is that the courts are generally inclined to give full effect to the requirement that the item as produced complies with the prescribed criteria, on the basis that, even if the customer or employer has specified or approved the design, it is the contractor who can be expected to take the risk if he agreed to work to a design which would render the item incapable of meeting the criteria to which he has agreed.*"

This may seem like an unfair and inequitable result – the contractor being expected to perform the impossible as a result of the defective designs of the employer. The reasoning for this perhaps sharp result can be justified by the fact that the contractor will have had the opportunity to review the employer's designs in advance and confirm for themselves whether they consider them to be achievable. The harsh effects are also signposted in most modern EPC contracts, where it is typically expressly provided that the designs provided by the employer are provided for the contractor's information only – and that the contractor has reviewed and confirmed that they are suitable.

Conclusion

Owners, design professionals and contractors operating transatlantic concerns should be aware that contracts imposing similar standards of care can result in diametrically opposed results based on the differing national interpretations of who most fairly bears the risk of defects.

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[1] English law is commonly chosen for EPC projects in jurisdictions around the world.

[2]The implied term being "*that the supplier will carry out the service with reasonable care and skill*."

[3] Both cases concern medical professionals, however the principles are of general applicability.

[4]*See Balfour Beatty Constr., LLC v. Adm'r of Gen. Servs. Admin.*, No. 2023-2229, 2025 WL 798865 (Fed. Cir. Mar. 13, 2025).

[5] *See Coghlin Elec. Contractors, Inc. v. Gilbane Bldg. Co.*, 472 Mass. 549, 36 N.E.3d 505, (2015).

[6] *See AAB Joint Venture v. United States*, 75 Fed. Cl. 414, 416 (2007).

[7] *See Drennon Constr. & Consulting, Inc.*, 13 B.C.A. (CCH) ¶ 35213 (Jan. 4, 2013); *Metcalf Const. Co. v. United States*, 742 F.3d 984, 989 (Fed. Cir. 2014).

[8] A diminished fitness for purpose guarantee can sometimes be found in the US in certain construction contexts, such as residential work. *See, e.g., Chouanard v. Oak Lake Constr., Inc.*, No. A18-1733, 2019 WL 3293466, at *5 (Minn. Ct. App. July 22, 2019). There is also recognized implied guarantee that construction will be performed in a "workmanlike manner" free from defects, but that does not generally extend to design services and is often addressed in residential contexts. *See, e.g., Pulver v. Kane*, 643 F. Supp. 3d 1141, 1152 (D. Nev. 2022).