

THOUGHT LEADERSHIP

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Engineering Merit Assessments in International Arbitration

Repositioning the value of early technical review in complex international arbitration disputes

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Large construction projects involving global stakeholders (owners, contractors, operators, and their counsel) are becoming more common and more complex. This includes so-called “megaprojects” representing capital investments in the billions of U.S. dollars, which have been known to incur cost and schedule overruns. As the frequency and complexity of these construction projects trends upward year over year, so does the number of disputes. In 2020, for example, [disputes registered](#) with the International Chamber of Commerce (ICC) in the construction/engineering and energy sectors continued to represent the largest portion of arbitration cases—as well as approximately 38 percent of new cases.

To manage the steep impacts of complex claims related to large construction or megaprojects, the first step for legal counsel may be to hire a claims consultant to organize documentation and define the loss of time and money associated with specific issues; technical experts may only be called in later, if at all. Increasingly, however, the technical nature of issues surrounding fossil fuel power generation, renewable energy, clean combustion, agro-chemical, oil & gas, and carbon capture technology projects demands that multidisciplinary engineering analyses play a much more significant role in assessing the engineering merits of claims *earlier* in the process to help avoid costly errors and undesirable outcomes.

The Merit of Engineering Merit Assessments

Take the example of a boiler at an ammonia nitrate manufacturing plant that is showing signs of cracking and corrosion. It often happens that symptoms like this are attributed to a top-line cause that gets documented and submitted in an arbitration filing, for instance, the equipment allegedly not being operated according to specification. However, a technical engineering expert may unearth less obvious but equally important factors related to the interplay of how that system is being controlled or operated or how it was designed or constructed. These additional, and at times less obvious, factors can have potentially dramatic impacts on the claims advanced in arbitration proceedings. Pleadings submitted in relation to certain claims without considering technical factors may then need to be adjusted to articulate more nuanced issues.

Another critical point for stakeholders and legal counsel is the scope of engineering disciplines involved in the disputes of large, complex construction and megaprojects—and the possibility that the root cause of an issue will *not* be straightforward. In the example above, legal counsel might naturally seek a materials and corrosion engineer or an academic professional to evaluate their diagnosis. If the evaluation is inconclusive or points toward different, interrelated issues (perhaps the equipment was not being operated according to specification, but underlying factors, such as how it was designed, prevented it from being so), the case will be burdened with bringing in additional experts, often late in the arbitral proceedings. This can come at an extraordinary level of difficulty, drive delays and cost increases, and create potential communication and coordination gaps between instructing counsel and a growing bench of experts.

Realizing the Benefits of Expertise

Even considering the upfront investment that may dissuade some entities from involving experts in the early pre-arbitration phase, pursuing multidisciplinary engineering merit assessments is a best practice for complex construction disputes that provides valuable benefits such as:

- **Efficient assessment.** Drawing on a bench of multidisciplinary engineering expertise enables claims to be assessed efficiently from multiple angles. This should include reasonable advice as to whether a claim is supported by the existing evidence, which

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can help a firm gain insight into how best to direct its resources.

- **Alignment between technical expertise and pleading.** Leveraging technical analysis to inform pleadings reduces the potential for any discrepancies between the initial filing and evidence or expert testimony that may be required as the arbitration progresses.
- **Outright savings.** An arbitration claim being rendered weak or unsupported following the analysis of the instructing party's technical expert presents a clear and avoidable waste of financial resources for all claims. Early involvement of multidisciplinary experts can help focus time and money on the specific claims in an international arbitration case that are most worth pursuing.

How Exponent Can Help

Exponent assists our international arbitration clients with comprehensive engineering merit assessments that bring clarity to the complex and dynamic issues arising from large construction and megaprojects. Our consultants advise our clients before a claim is filed or a dispute gets underway, when we are positioned to support the pre-arbitration process with our deep well of multidisciplinary expertise. When appropriate, our established testifying experts offer international experience in high-profile matters and high-stakes litigation across a range of large construction and megaprojects for the chemical, oil & gas, construction & infrastructure, transportation, and utilities industries.



Stephen W. Garner, Ph.D., P.E., CFEI
Thermal Sciences
Managing Engineer
Chicago - Downtown
(312) 999-4245
sgarner@exponent.com



Nareg Sinenian, Ph.D.
Electrical Engineering & Computer Science
Senior Managing Scientist
Hong Kong
+852 3998 5405
nsinenian@exponent.com



Shane Kennett, Ph.D., P.E., CWI
Materials & Corrosion Engineering
Principal Engineer & Office Director
Denver
(303) 802-3448
skennett@exponent.com

Alexandria | Atlanta | Austin | Bellevue | Bowie | Chicago | Denver | Detroit | Houston | Irvine | Los Angeles | Maynard | Menlo Park | Miami | Natick | New York | Oakland | Pasadena | Philadelphia | Phoenix | Sacramento | Seattle | Warrenton | Washington D.C. | United Kingdom | Switzerland | China | Singapore