

Engineering Indemnification & Risk Liability-June 2024

By Dennis Zimmer, P.E.

Owner - Principal Electrical Engineer at AcDc Engineering

Engineering Indemnification & Risk Liability

In today's professional engineering practice, managing indemnification, liability, and risk avoidance (E&O) is essential to every engineer's project, throughout your career. With decades of cross-sector experience, Dennis Zimmer's insurance / liability considerations have matured over the years and are summarized below; to further aid discussions, educate and encourage participation, but mostly, to better inform, prepare and mentor the next generation of engineers. This is not intended or limited to the traditional AE build world but includes other broader fields of engineer's work within aerospace, consultants, electronics, facilities, manufacturing, maritime, medical, mining and the like, including designated AHJ or researchers in some cases.

If you are providing Professional Engineering Services, either as a paid consultant or as an employee, you should carefully match your services to applicable company policy, coverages (regardless of who pays for the insurance) specifications, calculations, notes on plans, reports and contracts. Note too, that states laws vary and insurance policies vary. Professional organizations such as NCEES, IEEE, EJCDC offer great resources as well as the insurance industry. Lastly, consider reviewing relevant case law rulings as a guide for industry trends in your area.

If your company isn't offering a particular E&O liability policy for your work, then at a minimum, obtain in writing a general indemnification understanding that covers your body of work.

The following terms and concepts define the framework for managing engineering risk:

Indemnification, Liability and Risk Terms:

- The practice of professional engineering is defined in Section 1 of the Professional Engineers Act; Professional Engineering is:
 - a. any act of planning, designing, composing, evaluating, advising, reporting, directing or supervising (or the managing of any such act);
 - b. that requires the application of engineering principles; and
 - c. concerns the safeguarding of life, health, property, economic interests, the public welfare or the environment, or the managing of any such act.

If what you do meets all three of these tests, then you are practicing professional engineering and must be licensed.

- **Indemnification:** for harm or loss; security against legal liability for one's actions. Indemnifications, or “hold harmless” provisions, shift risks or potential costs from one party to another. To “indemnify” simply means “to compensate for a loss.” For example, in a contract for engineering services, an indemnification clause might ask for compensation for damages caused by the engineer's professional negligence. This is typically acceptable since professional liability insurance covers that risk.
- **E&O Insurance:** Professional liability insurance helps protect your business and design professionals from lawsuits related to the professional services given. You may have heard other names for this coverage, such as: Professional indemnity insurance for engineers & Errors and omissions insurance for professional engineers.
- **Standard of Care:** Professional negligence is the term that applies to the care used by members of a profession (law, medicine, architecture, engineering) in the course of providing professional services. Putting this in an engineering context, negligence is a failure to exercise the care and skill that is ordinarily exercised by other members of the engineering profession in performing professional engineering services under similar circumstances; engineers are generally responsible only for those monetary damages resulting from their negligent acts or omissions.
- **Document Retention (5-years):** as a general rule, working iterations, versions and superseded versions of documents (scope of work, proposals, contracts, drawings, calculations, study, software or spreadsheet models, reports, specifications) should generally be discarded after final versions of the documents are issued (but all milestone deliverables should be maintained). Documents should generally be discarded after final versions of the documents are issued, for example, during a project, informal and internal communications that offer design variations, critiques, suggestions for improving plans or reports, or self-critical analysis may have been prepared, but ultimately not selected or decided upon. Keep all information, decisions or directions made by client, code officials, and other related third parties. Turn-over to project team lead via transmittal, all submittal reviews, shop plan reviews, field observations, construction progress reports, change orders, opinions of probable costs, estimates, test or commissioning results, warranties or certifications. Note: a lot depends on the Agreement.
- **Digital Retention (5-years):** as a general rule, your clients do not possess the expertise, SME or tools nor the same working versions of software used to generate project deliverables; turn over results or reports imbedded within deliverables but underlying technical model & software is yours, this includes CAD, BIM, Revit, Energy Models, Spreadsheets, Power Studies, Arc Flash, ...etc.

- **Email Retention:** (selective) (example, outbound & inbound 1-Year from building occupancy; internal 30-days): Define your email retention (archive) policy; i.e. A consideration of “what constitutes a record” will likely compel the conclusion that many emails will never become records at all and thus will not require an email retention policy. However, certain emails should be retained, even if not record; retaining outbound, consider limited inbound, and internal email communication. Careful considerations should be employed, keeping only those emails where (1) approvals, decisions or directions made by client, code officials, and other official third parties; (2) project deliverable are made; (3) affirming an understanding of design or project intent; (4) emails that include hazards, injuries, emergency, cease and desist, stop work order, dispute, union strike.
- **The Spearin Doctrine:** The Spearin Doctrine dictates that a project owner impliedly warrants that the plans and specifications it provides are accurate and suitable and can protect a contractor against liability. The Spearin Doctrine is a “complete defense” to design defect claims, which the defendant has the burden to prove, and only if the damage is “solely due” to the defective design. If the defect is not due solely to defective design, it is not a complete defense and the jury must allocate between design and installation defects.
 - a. Engineer makes no warranties, express or implied, under this Agreement or otherwise, in connection with any services performed or furnished by Engineer.
- **Engineer’s Duty to Provide Code-Compliant Designs:** Beyond contracts and insurance, engineers carry a primary obligation to protect public safety through code compliance. Professional engineers have a fundamental duty to provide designs that comply with all applicable laws, codes, standards, regulations governing their discipline and jurisdiction. This obligation is tied directly to the engineer’s license and the public safety mandate established in each state’s engineering law.
 - a. Engineers must ensure their work conforms to:
 - 1. Adopted building codes (e.g., NEC, IBC, NFPA, ASHRAE).
 - 2. Applicable federal, state, and local regulations (e.g., OSHA, state administrative rules).
 - 3. Industry consensus standards and manufacturer specifications relevant to safety, intent, and functional performance.
 - b. Failure to meet these Code requirements can constitute negligence or misconduct, subject to disciplinary action by the state licensing board and potential civil liability.
 - c. Noncompliant designs can undermine safety and reliability, and expose both the engineer and their firm to claims or enforcement actions.

- **EJCDC's Standard Form of Agreement Between Owner and Engineer for Professional Services:** "Engineer shall not at any time supervise, direct, control, or have authority over any Constructor's work, nor shall Engineer have authority over or be responsible for the means, methods, techniques, sequences, or procedures of construction selected or used by any Constructor, or the safety precautions and programs incident thereto, for security or safety at the Site, nor for any failure of a Constructor to comply with Laws and Regulations applicable to that Constructor's furnishing and performing of its work. Engineer shall not be responsible for the acts or omissions of any Constructor."

- a. Some states, however, have amended their workers' compensation statutes to provide immunity to design professionals on construction projects when they are procedures of construction or for employee safety.

Summary: Professional engineers face growing complexity in contracts, liability, and documentation. This article summarizes key principles of indemnification, errors & omissions coverage, and risk management practices every engineer should understand. Drawing on decades of professional experience, Dennis Zimmer, P.E., highlights practical measures to reduce liability exposure while maintaining professional standards and mentorship for the next generation of engineers.

Engineers bear both a legal and ethical responsibility to protect public safety by delivering compliant designs. Clear communication, documentation, and adherence to codes are not optional, they define the professional integrity, duty and legal defense of every licensed engineer. Ultimately, compliance is not a contractual preference; it is the legal and ethical foundation of engineering practice.

Please pass this along this article to your groups of young engineers, to discuss and prepare them for limiting their risks while providing security for their professional engineering duties, roles and responsibilities.

Disclaimer: This article is for educational purposes and does not constitute engineering practice, legal or insurance advice. AcDc Engineering does not offer legal advice or insurance. <https://acdcengineeringteam.com/>

About the Author:

Dennis Zimmer is a professional electrical engineer with more than 35 years of experience in MEP, AE, and Controls across commercial, manufacturing, and industrial projects. Dennis has served as a principal engineer, middle manager, and business owner. Over the course of his career, Dennis has held P.E. licenses in 15 states.

He has also been accredited by WA LSI to perform electrical field evaluations for over 7 years and has additional Machine Safety & Risk Assessment certification.

His passion is mentoring engineers in technical mastery, business acumen, and leadership excellence.

Thank you, Dennis

