

Can My Company Legally Practice Engineering in Ohio?

*by OSPE's Ethics Committee
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A commercial jet crashes twice because of one software glitch.¹ The attempted cleanup of an abandoned mine causes its toxic contents to spill into and poison an Arizona river.^{2,3} A gas utility's cost-cutting actions lead to gas explosions and fires resulting in one death, many injured and thousands temporarily homeless throughout Massachusetts' Merrimack Valley.^{4,5} Each of these recent disasters involved the public health, safety and welfare and raised the issue of the lack of involvement of licensed (or at least seasoned and competent) engineers. The events have also provided momentum in the shifting regulatory landscape towards eliminating or limiting industrial and Federal exemptions to state requirements for the practice of engineering to require a license.

How do we stay ahead of the legal curve? People generally strive to do the right thing, and unless one is a sociopath, will try to avoid doing things that will harm others. Engineers work for their employers or clients, obviously, but licensed professional engineers are different in that their primary responsibility is to public safety, health and welfare. Since professional licensing is the constitutional purview of the states, how does one keep track of what is required for either a company or an individual to practice engineering? Check your state's statutes and codes! Here's one summary list of all 50 states posted by the American Bar Association's Construction Industry Group:

https://www.maslon.com/webfiles/MiscArticles/50-state_Survey_of_Design_Firm_Licensure_1st_ed_Jan_2015.pdf

Well, what if you're an engineer who's working in the state of Ohio? First things first – the practice of engineering:

According to Ohio Revised Code (ORC) 4733.01(E),

“The practice of engineering’ includes any professional service, such as consultation, investigation, evaluation, planning, design, or inspection of construction or operation for the purpose of assuring compliance with drawings or specifications in connection with any public or privately owned public utilities, structures, buildings, machines, equipment, processes, works, or projects in the proper rendering of which the qualifications of section 4733.11 of the Revised Code are required to protect the public welfare or to safeguard life, health, or property.”

Can your company or organization offer engineering services? Yes, but only if the employees doing the engineering are licensed engineers (ORC 4733.16(A)) AND your company has a current Certificate of Authorization to provide engineering services in Ohio (ORC 4733.16(B)).

What if you work in company with a certificate of Authorization but you don't have a license? Can you do engineering work? Only if you are working under a licensed engineer who has responsible charge for the work. (ORC 4733.18 (B)(1)(a))

Who needs to be a licensed engineer in a company with a Certificate of Authorization? According to ORC 4733.16(D), "Each firm, partnership, association, limited liability company, or corporation...shall designate one or more full-time partners, managers, members, officers, or directors being responsible for and in responsible charge of the professional engineering or professional surveying activities and decisions, and those designated persons shall be registered in this state."

Of course, the more employees with professional licenses, the more engineering work the company can do!

What if my company manufactures a product (say, check valves)? Does it need a Certificate of Authorization? No. Engineers involved in the design of products sold to the public fall under the "industrial exemption". (ORC 4733.18 (B)(2)) Industrial exemption statutes allow companies that design and manufacture products to do so without requiring engineering licensure or Certificate of Authorization (C of A). Even check valves. For context, realize that Boeing had outsourced its 737 Max software to engineers making \$9 per hour, and no, they weren't licensed!

What if my company has a contract for engineering services with a utility in Ohio (public or private)? The company needs a C of A and engineers on that contract need to be licensed in Ohio.

What if I am employed directly by that utility? You need a license if you are doing engineering work. If you are solely an officer for that utility, you do not need an engineering license (ORC 4733.18 (B)(1)(c)) *(If you are inspecting gas line work in Massachusetts, then absolutely, you need a license!)*

What if my company has a contract with state or local government? If the company's work requires any engineering work to be done, it needs a C of A and the engineers on the contract need to be licensed.

What if I work for state or local government? Are you doing engineering work? Then yes, you need a license!

What if I work for the Feds? If you are a Federal employee working on Federal property, this falls under the Federal exemption (ORC 4733.18 (B)(1)(b)) so generally, no, you do not need a license, although some Federal entities waive that exemption. If you are a Federal employee working on other than Federal property, then you might not be exempt – check with your organization’s legal or personnel department. For instance, if you are working for the US Army Corps of Engineers, you will be strongly encouraged and supported to obtain a professional engineering license and will be required to have one in higher positions. This makes sense: The Corps of Engineers does work on large flood control projects that affect the public’s “life, health and property.” The EPA has also recently added requirements for licensed engineers to be involved in some types of projects. Recent Federal legislation now requires licensed engineers to prepare and seal engineering reports as part of permit applications to clean up abandoned mines.⁶

What if I work for the Feds and want to contract out Architecture and Engineering Services?

Please be sure that what you need is, in fact, architecture or engineering services as defined by the State of Ohio. Refer to the regulations in the Appendix relating to acquisition of these types of services. Also be aware that requirements like state licensing must be specified at the beginning of the acquisition/solicitation process.

What if our company has a contract with the Feds (e.g., EPA, DoD, US Army Corps of Engineers)? It depends!

Is the contract for “architecture and engineering services” as defined by USC Title 40, Chapter 11 (see Appendix)? Does the contract require compliance with applicable state law (48 CFR Part 36.6)? Then yes, the company needs a C of A and those performing engineering services on the contract need professional licensure.

The contractor selection process must specify these requirements up front and ensure that their selection meets these requirements (48 CFR Part 36.6). Since the State Board of Registration is required by law to keep a current list of Ohio licensed engineers and companies with C of A’s (ORC 4733.10) and to update it annually, it should be a simple matter to check candidates against that list!

Is it a research and development contract? Then it is unlikely that your company needs a C of A for engineering practice or licensed engineers.

Does my company need a C of A if it performs architectural or engineering services on Federal property? The Federal Acquisition Registration says nothing about exempting state requirements for services performed on Federal property, so yes, your company needs a C of A and those performing engineering services on the contract need professional licensure. If work is provided outside the U.S. or in states without the registration requirement for the work then a C of A or license is not required (FAR Part 36.609-4).

What if my company is licensed in another state but not in Ohio? It can apply for a C of A in Ohio, and after approval and issuance, it can offer engineering services in Ohio. (ORC 4733.16)

I just moved to Ohio and hired on with a registered engineering firm. Is my out of state license good? No, but you can apply to the State Board for comity. If you need a license quickly, you can apply for temporary registration while the State Board reviews your application for an Ohio license, provided the requirements in the state you left are at least as stringent as those in Ohio. (ORC 4733.18(A))

Requirements for engineering licensure and C of As vary significantly from state to state. When in doubt, check the state statutes and check RFP and solicitation announcements carefully. Does the work reasonably fall under state definitions for engineering work? If so, it is likely that your firm will require a C of A, and that those performing engineering services will require a license in the state where the work is performed. Performing work without a license or C of A puts your firm and the health and safety of the public at risk. It is your responsibility as firms and professionals providing engineering services to make sure you are properly licensed and authorized to perform those services.

1. <https://www.bloomberg.com/news/articles/2019-06-28/boeing-s-737-max-software-outsourced-to-9-an-hour-engineers>

2. <https://www.daily-times.com/story/news/local/four-corners/2019/03/04/judge-denies-epa-motion-dismiss-gold-king-mine-spill-lawsuit/3060344002/>

3. <https://www.usbr.gov/docs/goldkingminereport.pdf>

4. https://www.eagletribune.com/news/family-columbia-gas-settle-lawsuit-over-explosion-that-injured-several/article_5465a3f2-6b4f-11e9-96cc-17275e2c3d5b.html

5. <https://malegislature.gov/Bills/190/H5005>

6. <https://www.nspe.org/resources/pe-magazine/january-2017/nspe-makes-progress-campaign-against-exemptions>

Appendix – Selected Federal Regulations Governing Architecture and Engineering Contracts

USC Title 40 (Public Buildings, Property and Works), Chapter 11: Selection of Architects and Engineers, section 1102 (definition):

- “(A) professional services of an architectural or engineering nature, as defined by state law, if applicable, that are required to be performed or approved by a person licensed, registered, or certified to provide the services described in this paragraph;
- (B) professional services of an architectural or engineering nature performed by contract that are associated with research, planning, development, design, construction, alteration, or repair of real property; and
- (C) other professional services of an architectural or engineering nature, or incidental services, which members of the architectural and engineering professions (and individuals in their employ) may logically or justifiably perform, including studies, investigations, surveying and mapping, tests, evaluations, consultations, comprehensive planning, program management, conceptual designs, plans and specifications, value engineering, construction phase services, soils engineering, drawing reviews, preparation of operating and maintenance manuals, and other related services.

Also, “The term “firm” means an individual, firm, partnership, corporation, association, or other legal entity permitted by law to ***practice the profession of architecture or engineering.***” (emphasis is mine)

How does the federal government select engineering services contracts?

48 CFR (Federal Acquisition Regulations System), Part 36: Construction and Architect-Engineer Contracts

36.601-1 Public announcement:

The Government shall publicly announce ***all*** requirements for architect-engineer services and negotiate contracts for these services based on the demonstrated competence and qualifications of prospective contractors to perform the services at fair and reasonable prices. (See 40 U.S.C. 1101 *et seq.*) (emphasis mine)

36.602-1: Selection Criteria:

- (a) Agencies *shall* evaluate each potential contractor in terms of its -
- (1) Professional qualifications necessary for satisfactory performance of required services;
 - (2) Specialized experience and technical competence in the type of work required, including, where appropriate, experience in energy conservation, pollution prevention, waste reduction, and the use of recovered materials;
 - (3) Capacity to accomplish the work in the required time;
 - (4) Past performance on contracts with Government agencies and private industry in terms of cost control, quality of work, and compliance with performance schedules;
 - (5) Location in the general geographical area of the project and knowledge of the locality of the project; ***provided***, that application of this criterion leaves an appropriate number of qualified firms, given the nature and size of the project; and
 - (6) Acceptability under other appropriate evaluation criteria.

36.601-4 Implementation:

- (a) Contracting officers should consider the following services to be “architect-engineer services” subject to the procedures of this subpart:
- (1) Professional services of an architectural or engineering nature, ***as defined by applicable State law, which the State law requires to be performed or approved by a registered architect or engineer.*** (emphasis mine)
 - (2) Professional services of an architectural or engineering nature associated with design or construction of real property.
 - (3) Other professional services of an architectural or engineering nature or services incidental thereto (including studies, investigations, surveying and mapping, tests, evaluations, consultations, comprehensive planning, program management, conceptual designs, plans and specifications, value engineering, construction phase services, soils engineering, drawing reviews, preparation of operating and maintenance manuals and other related services) that logically or justifiably require performance by registered architects or engineers or their employees.

(4) Professional surveying and mapping services on an architectural or engineering nature. Surveying is considered to be an architectural and engineering service and shall be procured pursuant to 36.601 from registered surveyors or architects and engineers. Mapping associated with the research, planning, development, design, construction, or alteration of real property is considered to be an architectural and engineering service and is to be procured pursuant to 36.601. However, mapping services that are not connected to traditionally understood or accepted architectural and engineering activities, are not incidental to such architectural and engineering activities or have not in themselves traditionally been considered architectural and engineering services shall be procured pursuant to provisions in parts 13, 14, and 15.

(b) Contracting officers may award contracts for architect-engineer services to any firm permitted by law to practice the professions of architecture or engineering.

36.609-4 Requirements for registration of designers:

Insert the clause at 52.236-25, Requirements for Registration of Designers, in architect-engineer contracts, except that it may be omitted when the design will be performed -

a) Outside the United States and its outlying areas; or

(b) In a State or outlying area of the United States that does not have registration requirements for the particular field involved.

REQUIREMENTS FOR REGISTRATION OF DESIGNERS (JUN 2003)

Architects or engineers registered to practice in the particular professional field involved in a State, the District of Columbia, or an outlying area of the United States shall prepare or review and approve the design of architectural, structural, mechanical, electrical, civil, or other engineering features of the work.

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