

Senate Executive Departments and Administration Committee

Kevin Condict 271-7875

HB 435, relative to the definition of professional engineer.

Hearing Date: April 2, 2025

Time Opened: 9:45 a.m.

Time Closed: 10:23 a.m.

Members of the Committee Present: Senators Pearl, McGough, Gannon, Altschiller and Reardon

Members of the Committee Absent : None

Bill Analysis: This bill clarifies that the "practice of engineering" for purposes of the regulation of professional engineers does not include any professional service or creative work performed in the fields of information technology, information security, electronics, digital systems, or computing.

Sponsors:

Rep. McFarlane

Rep. Berezhny

Rep. Harrington

Rep. C. McGuire

Rep. Vose

Rep. Aures

Rep. Ammon

Rep. M. Aron

Who supports the bill: Rep. Carol McGuire (Merr. 27), Rep. Donald McFarlane (Graf. 18), Curtis Howland, Timothy Finney, James Gardner, and Aubrey Freedman.

Who opposes the bill: Chris Mulleavey (ACEC-NH), Chuck Gregory (NHSPE), Janet Lucas, Daniel Richardson, and Jane Smith.

Who is neutral on the bill: None.

Summary of testimony presented:

Representative Carol McGuire, Merrimack 27

- Rep. McGuire introduced House Bill 435.
- Rep. McGuire said the bill passed through the House Executive Departments and Administration (ED&A) Committee unanimously.
- Rep. McGuire explained that this bill exempts software and information technology (IT) professionals from the definition of professional engineer (PE). She said the bill primarily deals with software engineering, which is not covered

by the exams for PEs and is not necessarily studied by PEs. She said that the seal of a PE is not needed to produce software, information security, or a computer other than in very specific applications where it is part of a larger system.

- Rep. McGuire said that there are at least four engineers on the House ED&A Committee, all of whom agreed that this is not something that is necessary to be licensed as a professional engineer for.
- Sen. Reardon asked about the distinction between an engineer and a professional engineer.
 - o Rep. McGuire said that a PE is required to sign off on major structures and civil engineering projects. She explained that it is allowed, if you have a large organization, to have people do work under a PE. She said most engineers are not PEs. The professional engineer is responsible for the technical quality of the work. She said the main reason to become a PE is if someone is planning to become their own boss or are working in a business that requires that sort of authority. She said that when she worked for General Electric at most ten percent of engineers were PEs.
- Sen. Reardon asked if an exam was all that was required to be licensed as a PE.
 - o Rep. McGuire said there are multiple requirements. An individual must pass exams and meet experience requirements. She said it is not a trivial license and that it was one of the earliest licenses created.
- Sen. Altschiller said she was unaware of the hierarchy within the engineering profession. She asked what the least amount of education and certification is that would get an individual into the field. She asked what the steps to the top of the profession are.
 - o Rep. McGuire said that it depends on what you consider the top. She said engineers normally have a bachelor's degree but there are PEs with specialized master's degrees. She said that PEs take the engineering training exam and those who take the exam are overwhelmingly people who are aiming to become a business owner or aim to become something like a chief engineer. She said many do not take the exam and that the final PE exam is rigorous. She said PEs generally sign off on major projects, and that PE status is necessary to sign off on the designs of serious equipment, structures and bridges.
- Sen. Altschiller asked what someone is called when at the point of their career where they are studying for the PE exam.
 - o She said they are considered engineers. She said that, for example, she is not a PE, but she is trained as an engineer.

Chris Mulleavey, American Council of Engineering Companies of New Hampshire

- Mr. Mulleavey said that the American Council of Engineering Companies of New Hampshire (ACEC-NH) opposes this bill.

- Mr. Mulleavey explained his background as a professional engineer, including being a member of the Board of Professional Engineers from 2014 to 2024.
- Mr. Mulleavey said the ACEC-NH appreciates efforts to ensure the statutes that govern the practice of professional engineering are clear. Despite this, the ACEC-NH believed that this bill would add confusion to RSA 310-A:2. He said they are concerned that this bill could potentially diminish safeguards in the practice.
- Mr. Mulleavey said this bill seeks to exclude any professional service or work performed in the fields of IT, information security, electronics, digital systems, or computing. He said that the reality is that professional engineering activities occur within those fields.
- Mr. Mulleavey stated that there are professional engineering exams for computer engineering and electronics, controls, and communications.
- Mr. Mulleavey said PEs work in these fields and if an individual presents themselves as a PE working in these areas, then licensure is required in the State of New Hampshire for the health, safety, and welfare of the public.
- Mr. Mulleavey said that ACEC-NH is not aware of any instance in the State where someone working in these fields has been required to obtain licensure as a professional engineer. He said that fact reinforces their view that this bill is addressing a non-existent issue.
- Mr. Mulleavey explained that, in New Hampshire, you can call yourself an engineer without passing the exam, but you cannot use the title unless you are licensed.
- Sen. Altschiller asked about the hierarchy of education within the field. She asked if extensive education and experience prior to sitting for the final PE exam qualifies someone to present themselves as an engineer.
 - o Mr. Mulleavey said that is correct, in New Hampshire. He said that in about thirty-five to forty states they will not allow an individual to call themselves an engineer if they are not a PE.
- Sen. Altschiller asked if only in New Hampshire is there differentiation that a PE must sign off on final evaluations.
 - o Mr. Mulleavey said that if someone has not passed the PE exam then they cannot sign off. He said there are three steps to becoming a PE: graduation from an accredited institution, taking the Fundamentals of Engineering (FE) exam, and four years of practicing with progressive experience under a licensed professional before then being able to sit for the exam. Upon passing the exam, that person is a PE.

Chuck Gregory, New Hampshire Society of Professional Engineers

- Mr. Gregory explained that he is the current President of the New Hampshire Society of Professional Engineers (NHSPE). He said the NHSPE opposed this bill.
- Mr. Gregory stated the concern that broad exclusions could undermine public safety and introduce new ambiguities into the law.

- Mr. Gregory said the exclusions do not accurately reflect the scope of professional engineering licensure and could create unintended consequences. Each of the fields listed includes areas of practice that are currently and appropriately within the scope of professional engineering licensure.
- Mr. Gregory stated that work involving electronics, digital systems, and computing has recognized professional engineering licensure in disciplines such as electrical, computer, software, and systems engineering. He said that in situations where this work has a direct bearing on public health, safety, and welfare, it is appropriately performed by a licensed PE.
- Mr. Gregory said that licensure ensures that individuals making critical design decisions meet regular standards of education, experience, and ethics, and that they are accountable to the public through a professional code and regulatory oversight.
- Mr. Gregory said that according to the National Council of Examiners for Engineering and Surveying, the volume of licensure exams has grown significantly. He noted a fifteen percent increase from 2023 to 2024. He said that electrical and computer engineering exams accounted for thirty-seven percent of all engineering licensure exams in 2024. He said these increases in exams reflect the increasing demand for licensure in the fields. He said the fields are highly technical and intersect significantly with engineering practices that protect public safety.
- Mr. Gregory said the bill would create an overly broad carveout that overlooks key aspects of how engineering is practiced in critical sectors.
- Mr. Gregory stated that the bill could put New Hampshire at odds with national licensing standards.
- The NHSPE believes it is possible to foster growth in the technology sector without diminishing safety standards.
- Sen. Altschiller asked for further information on the bill possibly putting New Hampshire out of alignment with national licensing protocols.
 - o Mr. Gregory said other states do not have this carveout. He said it is part of expectations regarding public safety. He said anything important enough to protect should be overseen by a licensed PE.
- Sen. Altschiller asked if he was talking about information security and digital systems when discussing public safety. She asked if the systems used by the State to get messages out to the public were designed by PEs.
 - o Mr. Gregory said he is not sure if those systems were designed by PEs. He said that anything that impacts the public that is of a technical nature should be overseen by someone who has accountability.
- Sen. Altschiller asked about PEs in surrounding states and work in the field of IT. She asked if those people have achieved the level of training and education required and have sat for the final exam.
 - o Mr. Gregory said this bill would create ambiguity and put New Hampshire out of alignment with those other states. He said ensuring those qualifications are met would be required.
- Sen. Altschiller asked for confirmation that this type of carveout does not exist in other places.

- Mr. Gregory said he cannot definitively say it does not exist elsewhere but that if it does it is accounted for in those other states. He said it is outside the norm.
- Sen. Reardon pointed to the definitions section of the bill. She asked if, instead of being a carveout, there is value in adding to the list of subjects covered. She asked if that list should be enhanced instead of carving out sections.
 - Mr. Gregory said he does not think more needs to be added. He said that would not be addressing an issue.
- Sen. Reardon agreed that a carveout does not make sense. She asked if there is a gap in the PE statute that could be clarified.
 - Mr. Gregory said this is a big area of growth. He said cybersecurity is a new frontier which is becoming more and more critical. He suggested the fields be evaluated to see if they should be added.

Representative Donald McFarlane, Grafton 18

- Rep. McFarlane said he put this bill in because there is uncertainty in the current statutes.
- Rep. McFarlane explained that his father was an engineer, so he is aware of the importance of appropriate controls.
- Rep. McFarlane said he recognizes the purpose of this chapter of law, and that this bill is not intended to take away from the needs of the field.
- Rep. McFarlane said that when discussing this policy with a family member who is an engineer, they felt it was a commonsense change that is needed.
- Rep. McFarlane said that he discussed this bill during its drafting with PE organizations. He said he does not see the Board of Professional Engineering taking time to focus on licensing in this area.
- Rep. McFarlane stated that the purpose of the laws and rules is to ensure that buildings and structures are created safely and with appropriate oversight.
- Rep. McFarlane said that this bill is not about the level of education, it is about making sure that people who are putting a seal on a document have the right approvals to do so. He said there is a big gulf between the intent of the bill saying that anyone engaged in these fields must have a PE license.
- Rep. McFarlane addressed an earlier question regarding how many engineers have a PE license. He suspected that it was fewer than ten percent of engineers in the state. He said an estimated twenty percent of engineers are PEs. He said that PEs are interested in expanding into these fields but are primarily focused on physical structures.
- Rep. McFarlane said that, in his conversations with PE organizations, he offered them the opportunity to present alternative language. He said no alternative language was provided and that those organizations did not appear at the House hearing. He said that at the House hearing, committee members who are engineers expressed support for this bill.
- Rep. McFarlane explained that he has been working in an engineering field for over thirty years that does not require a PE license. He said the statements that

licensure is required in New Hampshire but that PE organizations are unaware of situations in which engineers are required to obtain a PE license are contradictory. He said either the State will require this, or it will not, and that if the State will require a PE license, then New Hampshire will be a pariah in states that support these fields. He said the practicality of it is that everyone understands that the many people working in these fields across the United States are not required to have this licensure.

- Rep. McFarlane said many of the engineering fields operate similarly to apprenticeships in other industries.
- Sen. McGough mentioned the definition of professional engineering. He pointed to lines 8 and 9 where the bill attempts to exclude professional service or created work, which was included in the definition of professional engineering. He asked how that contradiction in language helps.
 - o Rep. McFarlane said that is the way which he and the Office of Legislative Services (OLS) determined would make the most sense to have the impact he was looking for. He said it was determined to be easier than trying to carve out other paragraphs of that chapter. He said changing the definition of practice of PEs can achieve the same end without more complex language. He said the intent of the bill is that, whereas the chapter of law is focused on work performed through the practice, the vast majority of the work that is being done in these fields has an impact on public safety. He said that depending on the interpretation, most of the people working in these fields should suddenly be subject to these statutes.
- Rep. McFarlane noted that there are various exemptions in licensure across the fifty states. He mentioned that the National Society of Professional Engineers (NSPE) has stated that all engineers should be required to licensed PEs.
- Rep. McFarlane said that realistically, many authorities agree that there are millions of unfilled jobs in the fields of IT and IT security where we cannot get competent PEs to serve. He said all this bill seeks to do is provide clarity. He said one problem is that these problems are not clear.

KC

Date Hearing Report completed: April 4, 2025