



TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS

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Ken Levine, Director
Texas Sunset Advisory Commission
P.O. Box 13066
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Dear Mr. Levine:

Thank you for the opportunity to respond to the Sunset Advisory Commission Staff Report on the Texas Board of Professional Geoscientists (TBPG).

TBPG appreciates the Sunset staff during the review process. We note that facts presented in the reports (statistical information regarding licensees numbers, enforcement cases, funding, staffing, etc.) are accurately presented. However, we do not agree with the findings presented in the report. Specifically, we do not agree with the Recommendation 1.1 to abolish the Texas Board of Professional Geoscientists and repeal the Texas Geoscience Practice Act.

TBPG protects the public by licensing qualified Professional Geoscientists, registering Geoscience Firms, and certifying Geoscientists-in-Training, and by enforcing the Code of Professional Conduct the Board has established for its licensees. TBPG also provides outreach to the public regarding the need for qualified professionals to be responsible for geoscience work performed for the public in Texas.

Please note the following regarding Findings:

- Public protection was not the primary reason to initiate regulation: We can't comment on the activities that occurred prior to the passage of the Texas Geoscience Practice Act. The agency didn't exist so there can't be any institutional history. Some past and present Board Members were involved in the advocacy that ultimately resulted in the passing of the Act by the 77th Texas Legislature in 2001. We are aware of the history of bills that were filed in the four preceding sessions. We are not the authority on the positions and arguments of individuals, groups, or even legislators and their staff prior to the passage of the Act.

However; it is our understanding from various individuals and stakeholders who were involved in the advocacy effort that the key impetus for pursuing licensure of Professional Geoscientists was concern over what was believed to be a number of unqualified individuals actively practicing in settings that threatened public health, safety, welfare, and the state's natural resources (under public and private lands).

TBPG's very mission is to protect public health, safety, welfare, and the state's natural resources by ensuring only qualified persons carry out the public practice of geoscience. TBPG has always functioned within the parameters of the Act and its activities have always been aimed at protection of the public.

TBPG agrees that only activities that greatly impact the public health, safety and welfare should be regulated. Many Texans do not understand what it is that geoscientists do, nor why their work is so vital for protection of the public. Please note the range of activities that are not exempt from the requirement of licensure. PGs perform an array of professional geoscience services including Environmental Site Assessments (ESA), Fault Studies, and Groundwater Resource Studies, which are used in a variety of situations to site buildings, landfills, and other infrastructure. A thorough and accurate knowledge of the geologic subsurface is vital to insure that infrastructure will have a stable foundation and that facilities that are built to contain waste products will be able to detect potential leakage of those contaminants into the state's groundwater resources.

TBPG recognizes that most if not all environmental cleanups in the State of Texas are performed by PGs. The Texas Commission on Environmental Quality (TCEQ) relies on the knowledge and competency of PGs to report accurately and professionally on environmental projects. The TCEQ according to an August 20, 2004 regulatory notice requires a PG to have oversight and to stamp and sign reports in the following programs:

- The PST Program
- Texas Risk Reduction Program
- Dry Cleaner Program
- Innocent Owner/Operator Program
- Superfund Program
- PST State Lead Program
- Risk Reduction Rule Reports
- Voluntary Cleanup Program
- Phase I, II and III Reports
- Disposal of Naturally Occurring Radioactive Material (NORM)Waste

TBPG recognizes that PGs are required to have adequate knowledge of soil and groundwater in these vital programs and to submit Assessment Reports, Release Determination Reports, Groundwater Monitoring Reports, Free Product Removal Reports from Groundwater, Remedial Activity Reports on Groundwater, Operation and Performance reports on groundwater remediation systems, Corrective Action Plans, Annual Groundwater Monitoring Reports, Affected Property Assessment Reports, Groundwater Classification Reports, Ecological Risk Assessment Reports, IOP Site Investigation Reports, Superfund Remedial Investigation Reports, Site Conceptual Modeling Reports, Record of Decision Reports, and Phase I Property Transaction Reports.

TBPG also recognizes that PGs are vital to the remediation efforts of the Railroad Commission of Texas (RRC). The RRC state managed cleanup program requires PG seals as

required by law on reports submitted to the site remediation section. The protection of groundwater and soil are critical to protecting the natural resources in the State of Texas.

TBPG is also aware that there are other real implications to licensure of Professional Geoscientists, just as there is with most licensed professions. Passage of the Act did elevate the practice of geoscience to a profession that should only be practiced for the public by individuals who have met requirements and demonstrated minimum competence.

For example, prior to PG licensure, no licensed professional took professional responsibility for the geoscientific investigations and interpretations that are vital to the success and long term stability of numerous types of engineered projects that clearly impact public health and safety. Examples include the siting of buildings, roads, and bridges, and construction of landfills and other facilities that are designed to hold waste products or chemicals.

Prior to PG licensure, Professional Engineers, in most cases, relied on unlicensed individuals to provide geologic assessments on which plans and designs were based. However, Professional Engineers were not accountable to the TBPE for the problems with geologic assessments. When the Act was passed, the Act appropriately did not prevent Professional Engineers from performing geoscience services. Prior to 2003, the Texas Engineering Practice Act did not regulate the practice of geology. Although there are some Professional Engineers who have a degree in geological engineering and can perform geological assessments competently, civil engineers are only required to have one semester of fundamental geology and there is no requirement for other engineering disciplines to have any college level geology course work. Therefore, once the Texas Geoscience Practice Act was passed, the TBPE initiated rules establishing jurisdiction over PEs performing geoscience services. The passage of the Act, therefore, in addition to establishing the accountability of qualified Professional Geoscientists, it even helped to establish accountability of Professional Engineers when PEs perform geoscience services.

- Exemptions: Most of the activities that are exempt from the requirement of licensure in the Act (§1002.252) are very common exemptions among licensed professions. The remaining exempted activities, specific to the geoscience profession, are logically exempted.

Common and logical exemptions in §1002.252:

- Exemption 1: Common exemption -Work under the responsible charge or supervision of a licensed professional as an assistant as long as the professional takes responsibility for the final work product.
- Exemption 2: Common exemption -Perform work for the federal government.
- Exemption 3: Logical exemption This exemption is discussed in more detail below.
- Exemption 4: Common exemption -Perform scientific research.
- Exemption 5: Common exemption -Teach the profession.
- Exemption 6: Common exemption -Perform work in private settings for one's own purposes.
- Exemption 8: Common exemption -Prepare exhibits for court or testify in court.

- Exemption 9: Common exemption -Evaluation by a state agency, as defined by Section 2001.003, Government Code, or by a hearing examiner of an exhibit or document offered or placed in evidence before an administrative tribunal
- Exemption 10: Common and Logical exemption -Perform work that is performed under another license (in this case, the determination of the suitability of a site for a specific on-site sewage disposal system by a person qualified by TCEQ to do so)

Exemption 3 is a logical Exemption. Exemption 3 states: "Geoscientific work performed exclusively in exploring for and developing oil, gas, or other energy resources, base metals, or precious or nonprecious minerals, including sand, gravel, or aggregate, if the work is done in and for the benefit of private industry." The work, as described by this exemption as "exploration and development," does not impact the public health, safety, and welfare.

However, when these activities do impact the public health, safety, and welfare, a license is required. For example, in drilling an oil or gas well, the excavation may penetrate layer(s) of groundwater above the targeted reserve. The Texas Railroad Commission requires that state licensed Professional Geoscientists issue groundwater protection letters indicating the upper and lower depths of reinforced casing to prevent contamination of the groundwater as a result of fluids traveling through the excavation. In addition, when there has been an accidental contamination as a result of these exempt activities, licensed professionals (PGs and PEs) are required to assess and address the contamination.

- The public is not the primary consumer of direct geoscience services: We do not understand the relevance of whether individual citizens are the primary consumer of direct geoscience services. Professional geoscience, just like professional engineering and many others, is performed for private firms seeking permits to engage in certain activities. These permit requirements speak for the need to have the activity performed competently and ethically by licensed accountable professionals performing the work involved in obtaining a permit and then usually in completing the activity for which the permit was issued. Whether the specialized service, be it professional engineering, professional land surveying, architecture, landscape architecture, or geoscience, is performed directly for a private citizen, a firm or a corporation, or a state or local governmental agency, the impact of incompetent or unethical practice is overwhelmingly on the general public. We also note that there are many circumstances in which the public is the direct consumer of geoscience services. A geologic assessment that is submitted to TCEQ (or some other agency) in order to issue a permit is not actually work performed for TCEQ. But, instead, the work is performed for the private citizen, partnership, cooperative, corporation, other private citizen or entity, in support of the client's application for a permit.

In addition, work performed for a governmental agency is actually work for the public.

- The Board takes no significant enforcement action.
No substantiated complaints alleging unsafe or incompetent practice/Board self-initiates most complaints/minimal enforcement referrals from other state agencies: TBPG agrees that most complaints are opened by the agency and are not based on allegations of incompetent

or unethical practice. TBPG acknowledges that it has received few complaints from the public and from state and local agencies alleging unsafe, incompetent, or unethical practice from 2013-2017. TBPG, however, believes that instances of unsafe, incompetent or unethical practice do occur, but are not reported to TBPG. TBPG believes there is a general reluctance to report violations among industry professionals and government employees.

When Board members and staff conduct outreach activities, stakeholders sometimes tell us, with assurance, that the violations are occurring and that TBPG needs to find them. We invite these individuals to file complaints. TBPG, like most other professional licensing programs is equipped to respond to filed complaints. But, licensing Boards are generally not resourced or tasked with going out to seek violations.

It is not surprising that this aspect of the program (stakeholder reporting of complaints) is slow to get off the ground. Two actions point to this already being recognized to be an issue. In December 2010, the Board adopted an amendment to the Code of Professional Conduct requiring licensees to report suspected violations of the Code to the TBPG. In 2013, SB 138 was passed by the 83rd Texas Legislature, amending the Act. New §1002.207 (b) states, "A state agency that becomes aware of a potential violation of this chapter or a rule adopted under this chapter shall forward any information relating to the potential violation and any subsequently obtained information to the board."

Assuming Professional Geoscientists are no more or less likely than other licensed professionals to engage in misconduct or to practice incompetently, there are barriers of some kind to reporting. TBPG should work more closely with stakeholders and other government agencies to eliminate those barriers. It may take some time for licensees and other stakeholders, including individuals who are employed by state agencies, to consistently report suspected violations to the TBPG.

- Lack of competency complaints against grandfathered licensees/Licensee population is steadily declining: TBPG does not understand the relevance of these two sets of findings to the recommendation to discontinue the regulation of the profession. When licensure began and a grandfathering period was implemented, the age of the initial set of licensees did not reflect a normal bell curve. Rather, there were a disproportionate number of older licensees, a great number of whom worked primarily on oil and gas, minerals and aggregate, activities exempt from the requirement of licensure. The age demographic, along with the lack of requirement of licensure are factors that would account for a lack (but not total lack) of complaints about the work of a large number of licensees. Many of the grandfathered licensees are not very exposed to complaints regarding competency because their exempt work does not put public health, safety, and welfare at risk.

TBPG notes those factors also account for the initial rapid decline of licensees in the first few years of the program. Although the licensee count initially surged to around 6,700 and has since reduced to approximately 3,900 Professional Geoscientists, the rate of decline is slowing. The decline in the number of licensees was predictable from the time TBPG received the number of applications that it received during the grandfathering period.

Based on an average of 90 new licenses issued per year and an average licensed professional career duration of 30-40 years, the sustaining total number of licensees might be predicted to settle at between 2,700 and 3,600 Professional Geoscientists. It is reasonable to expect that there will be a workforce demand for at least the predicted minimum number of Professional Geoscientists to perform work included in the non-exempt public practice of geoscience.

- What is the least restrictive means to ensure safe practice of geoscience? The non-exempt public practice of geoscience involves complex learning and application of scientific principles. In order to perform geoscience work activities safely and competently, an individual generally needs no less than a bachelor's degree in a geoscience discipline and supervised experience in order to become minimally competent.

In addition to its standard measures for whether a program should exist, TBPG believes that decision makers should keep in mind, the following:

- The huge negative impact on the public and Texas' natural resources if the critically important work performed by Professional Geoscientists is performed incompetently or unethically.
- The reasonable level of education and training to engage in the profession safely and competently is currently set in statute. In addition, in order to ensure that qualified individuals who do not meet these qualifications are not denied the ability to work in the profession, the Appointed Board has the authority and responsibility to consider education waiver requests from applicants who may have obtained minimum competence and are able to demonstrate it through alternate means, including the discipline specific minimum competency examination.
- Membership in professional organizations do not require being minimally competent to engage in the public practice of geoscience. Some organizations have educational requirements or require references which are ultimately more restrictive in membership (for somewhat arbitrary reasons) than professional licensure as set forth in the Texas Geoscience Practice Act. TBPG's processes for evaluating applicant's credentials allows for a more open work environment for qualified individuals to engage in professional geoscience work activities.
- TBPG has entered into reciprocity agreements with other states. It continues to make efforts to obtain agreements with other state's licensing agencies. The TBPG Board has also adopted a rule that allows applicants from other states to become licensed in Texas under most circumstances.

In summary:

TPBG disagrees with Sunset Staff's assessment that the regulation of geoscientists provides no public benefit and that it should be discontinued. There is a need for qualified professionals to be accountable for non-exempt public geoscience work performed for the public in Texas.

The overarching concern for future Texans is to live in a state that has an adequate water supply and an infrastructure built with adequate geological consideration of the ground below the

surface. PGs protect groundwater and subsurface soil by properly remediating and reporting to the TCEQ and RRC.

TBPG questions whether the facts presented in the Sunset Staff report support the staff recommendation to discontinue regulation of geoscientists. The regulation of Professional Geoscientists does ensure that only qualified individuals engage in the non-exempt public practice of geoscience in Texas, an activity that does greatly impact the public health, safety, welfare, and the state's natural resources. Regulation of Professional Geoscientists and Geoscience Firms also ensures accountability for those licensed to provide these services.

Respectfully,



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