

March 18, 2009

ASSOCIATION OF ENGINEERING GEOLOGISTS  
P.O. BOX 460518  
DENVER, CO 80246

RE: Joint Task Force on Areas of Practice, Engineering and Geology Practice Guidelines

To Whom It May Concern:

This letter serves as a formal response from the Oregon State Board of Geologist Examiners (OSBGE) regarding the draft document entitled “Engineering and Geology Practice Guidelines”, dated April 2009, and prepared by the Joint Task Force on Areas of Practice (JTFAP). OSBGE is the licensing body that governs the public practice of geology and engineering geology in the State of Oregon. The Board has been in existence since 1977 and its charge is supported by both state law (ORS) and administrative rule (OAR). OSBGE’s licensing laws cover the work of Registered Geologists (RG) and specialty Certified Engineering Geologists (CEG). OSBGE’s primary mission is to “safeguard the health and welfare and property of the people of Oregon” (Oregon Revised Statute 672.505 to 672.991). OSBGE actively collaborates on areas of overlapping practice with the Oregon Board of Examiners for Engineering and Land Surveying (OSBEELS). Over the past several years, OSBGE and OSBEELS have been resolving geology-engineering overlap issues under the guidance of a collective MEMORANDUM OF UNDERSTANDING (MOU) dated December 2001. It is from this legal perspective as a regulatory body of the state, that the Board presents comments and recommendations regarding the draft JTFAP document.

The “Engineering and Geology Practice Guidelines” (herein referred to as “Draft Guidelines”) were reviewed and discussed at the March 5, 2009, Work Session of OSBGE. It is our understanding that the JTFAP is comprised of representatives from the American Institute of Professional Geologists (AIPG), the Association of Environmental and Engineering Geologists (AEG), and the Geo-Institute (G-I) of the American Society of Civil Engineers (ASCE). Based on review of the Draft Guidelines (p. 1), the stated objectives of the JTFAP are to:

- (1) “Evaluate the possibility and practicality of developing a statement on the areas of practice for geologists and civil engineers”;
- (2) “Define the group’s contributions to the health, safety, and welfare of the public”;
- (3) “Make a recommendation about the practicality of proceeding to develop a document in which areas of practice are spelled out”;
- (4) “Develop the practice area document as appropriate”.

OSBGE has formulated a response to the Draft Guidelines in the context of the above objectives. The following is a bulleted summary of comments and recommendations developed by the six current members of OSBGE, in consultation with two former Chairs. The comments are organized into the following topical categories: (1) Professional Practice, (2) Body of Knowledge, (3) Editorial Comments, and (4) Conclusion and Recommendations. Comments are bulleted and alpha-numerically coded for ease of reference. The following abbreviations are used to describe respective practice areas, consistent with usage in the Draft Guidelines: PG = Professional Geologist, PEG = Professional Engineering Geologist, PE = Professional Civil Engineer, PGE = Professional Geotechnical Engineer.

## **1. PROFESSIONAL PRACTICE**

**1.A.** The Table 1 matrix of “overlapping areas of practice” is professionally divisive, does not accurately align with existing geologic and engineering geologic practice in Oregon, and implicitly limits the scope of work that is currently extended to PG and PEG professionals under Oregon state law.

*1.A.1.* The Table 1 “check list” matrix implies that a PEG is not needed for any project. According to the matrix, a PG and PGE could complete the scope of work presented, without any need for a PEG. Table 1 negates the special skills and training that PEGs bring to the industry. The work of PEGs is unique and important; a simple combination of engineers and geologists can not provide the expertise needed to complete certain tasks. As written, the JTFAP guidance document will weaken the role of the PEG to a point where public safety will be compromised in a very real and measureable way.

*1.A.2.* The Draft Guidelines are clearly a revisit of the old California matrix that was adopted unilaterally by the California Engineering Board, and subsequently retracted as unworkable under pressure from California Geologists and Engineering Geologists. History appears to be repeating itself. Based on the OSBGE experience in developing the MOU with OSBEELS, it is the Board’s opinion that the Draft Guidelines have limited value with respect to public safety. There is a high probability that the document will serve to further foster divisiveness within the closely intertwined practice of engineering geology and geotechnical engineering.

*1.A.3.* The practice of geologists and engineering geologists can only rightly be defined by the scope of practice in which they are engaged. Through the use of statistically-driven Task Analyses of practicing professionals (regionally and nationally), the PG and PEG examinations in the State of Oregon have been structured to define our practice over the past decades. Limitations of professional practice for any individual, engineer or geologist, are defined by our respective statutes and rules. We can only ethically practice in our areas of

expertise. Those bounds vary by individual and state, and cannot be legitimately captured in a matrix of limitations, as implied by Table 1 of the Draft Guidelines. Table 1, and any related “check list” matrix, should be eliminated from the guidance document.

- 1.A.4.** As stated in the OSBGE MOU with OSBEELS, the professional practice limitations of any individual should only be judged by their respective education, training and experience. The quality of the work provided may, or may not be due to limitations of practice, as implied by Table 1.
- 1.A.5.** OSBGE, and its registrants, have worked diligently over the past decade on the issue of overlapping practice with OSBEELS. We have made positive strides toward cooperative efforts and mutual respect between the professions. Many high quality firms value their staff’s diversity that includes engineers, geotechnical engineers, engineering geologists, and geologists. If adopted, the proposed JTFAP Draft Guidelines will represent a major step backward, and will most certainly foster professional divisiveness. Any document that draws hard lines bounding specific tasks within an area of overlapping professional practice will similarly result in divisiveness, turf wars and focus attention on the battles, instead of promoting the protection of the public health, safety and welfare.
- 1.B.** The Board also noted that the broader draft document fails to delineate the practice of Engineering Geology as it currently exists in Washington, Oregon and California. Engineering Geology has long been a regulated practice in both California and Oregon; Washington more recently began registering geologists and this includes Engineering Geologists. Geotechnical Engineers are a more recent phenomenon in Oregon; and California and Oregon are the only two states with such registration.

  - 1.B.1.** The Draft Guidance is derived from a “national” perspective, however PEG licensing only exists on the west coast (CA, OR, WA). The geologic environment of this region is unique, and requires the special skills of a PEG, including training in geotechnics. The JTFAP document does not accurately portray the regional nuances of geotechnical practice, and a national “one size fits all” guidance is not applicable, and in fact, is a public safety hazard. The JTFAP guidance document at a minimum should include a strong disclaimer about geographic variation in practice across the U.S., with discussion about regional nuances.
- 1.C.** The OSBGE is concerned that the JTFAP guidance document will be leveraged by local factions to encourage cities and counties to develop new codes and laws that will essentially restrict the need and work of PEGs. OSBGE has direct experience with this concern. Public safety will be compromised.

- 1.D.** In Section 5.3 (p. 13), the JTFAP recommends that the Draft Guidelines be used by licensing boards to guide the scope of practice and related rules/laws. OSBGE strongly disagrees with this recommendation. This recommendation should be removed from the document. The guidelines, as currently written, limit the current practice of PGs and PEGs that are already afforded by law in Oregon.

## **2. BODY OF KNOWLEDGE**

- 2.A.** The Geology Body of Knowledge (BOK) lists on p. 18-19 of the draft JTFAP document are woefully inadequate and poorly prepared compared to the other listings for engineering geology and geotechnical engineering.
- 2.A.1.** The work of a PG, and geology as a science for that matter, are poorly represented in the Draft Guidelines. This component needs to be greatly strengthened if the JTFAP is going to include “geologists” (PG) in the document (rather than just engineering geologists or geotechnical engineers), or alternatively the notion of “geology” and professional geologists needs to be removed completely.
- 2.B.** The Hydrogeology, Environmental Geology, Mining, and Petroleum sectors employ the bulk of PGs in industry and government. However, details and scope of work related to these specialty areas are extremely deficient, and for the most part, absent in the Draft Guidelines. The JTFAP needs to reconvene the group and strengthen the representation from these specialty areas, or alternatively, restrict the conversation only to PEGs, PEs, and PEGs working in the construction industry.
- 2.C.** Given that the JTFAP document implicitly diminishes the scope of work for PG and PEG practice, there are significant ramifications for weakening university preparation of geoscientists if this document is adopted.

## **3. EDITORIAL COMMENTS**

- 3.A.** The title poorly reflects the content of the document. A more appropriate title would be “Geotechnical Engineering and Engineering Geology Practice Guidelines for the Construction Industry”. This document does NOT provide guidelines for the practice of geology or PGs, and does not appear to adequately provide guidelines for the larger civil engineering community.
- 3.A.1.** As the content stands, the terms “professional geologist” and “geologist” should be deleted from the document and only the terms “engineering geology” or “engineering geologist” should be used.

- 3.A.2.** Compared to the detailed scopes of work described for PE and PGE in the Draft Guidelines, those of the PG and PEG are more generalized, are not well represented, and are not consistent throughout the document. The PG and PEG scope of work statements need to be strengthened and detail added to render them more balanced and comparable to those provided for the PE and PGE.
- 3.B.** Executive Summary, page ii, third bullet: The OSBGE objects to the use of “scientific evaluation” to describe PGs. PGs also provide analytical evaluation and design recommendations. For example, PGs regularly plan and design groundwater production wells and the work involves analytical and quantitative methodologies. The attitude that PGs cannot do analytical or quantitative work is discourteous to a significant portion of the industry.
- 3.C.** Introduction, page 1, first bullet: The OSBGE objects to the use of the term “geologist” in the context of the Draft Guidelines. This more appropriately should refer to “engineering geologist”. This document does not reflect geology practice. The JTFAP charter is far too broad, and does a poor job of describing PG practice. The content of the document has the appearance of turf conflicts between geotechnical engineers and engineering geologists. Because the PG scope of practice is not adequately considered in the Draft Guidelines, all reference to PG work should either be greatly strengthened or removed all together.
- 3.C.1.** Page 2, section 1.3: “fundamental professional engineering and geology practices...” again far too broad of a statement. This document does not even begin to address the fundamentals of geology. As above, substitute “engineering geology” for “geology”.
- 3.C.2.** Page 7, section 3.1: strike bullet “professional geologist”
- 3.C.3.** Page 8, Strike section 3.3.2. Again this guideline needs to focus on engineering geologist and the construction industry. Further, PGs do provide quantitative information. For example, hydrogeologists regularly determine hydraulic aquifer properties and then use that data to analytically and numerically model contaminant transport and design pumping systems. PGs also design and implement subsurface investigations of contaminated sites, including groundwater, pollutant fate and transport, and remediation systems.
- 3.C.4.** In general the term “civil engineer” is used not “engineer” for good reason, the same reasoning must apply to geology. The use of the term “geology” is overstated, “engineering geologist” is most appropriate for the discussion at hand.

## 4. CONCLUSION AND RECOMMENDATIONS

- 4.1. Much overlap exists in the practice of Engineering Geology and Geotechnical Engineering, which is not correctly represented in Table 1 of the Draft Guidelines. Because Professional Geologists are not allowed to practice Engineering Geology in 3 of the 29 states that currently regulate the profession, Table 1 appears to represent only the practice of a PG, not the practice of a PEG. It is critical that the practice of Engineering Geology as it exists in those states that regulate engineering geology be properly represented, if this document is to be released to the public. The JTFAP Draft Guidelines limit the scope of existing PEG practice currently allowed by rule, law, and/or established standards in Oregon. Those states that regulate engineering geology as a specialty should have representatives on the JTFAP and significant input on the Practice Guidelines.
- 4.2. It is imperative that the JTFAP recognize that the regulatory boards of each state determine the geology practice in that state, not the professional organizations in which many registrants might participate. Limitations of professional practice for any individual, engineer or geologist, are defined by the respective state's statutes and rules. Registrants can only ethically practice in their area of expertise. Those bounds vary by individual and cannot be legitimately captured in a matrix of limitations, as suggested in Table 1. Check lists like those provided in Table 1 are divisive and they should not be included in *any* guidance documents prepared by the JTFAP.
- 4.3. The JTFAP Guidance Document does not reflect the current practice of geology as a profession, and does not adequately describe the BOK for geology as a science. This component either needs to be significantly strengthened, or removed from the document altogether. As the Draft Guideline stands, it should only focus on the roles of PEGs, PEs, and PGEs working in the construction industry. Guidance coverage of greater PG practice in the U.S. is weak to non-existent.
- 4.4. The OSBGE cautions the JFTAP about releasing a document that fails to represent the work of geologists across the U.S., and fails to reflect existing PEG practice in Oregon. As written, OSBGE will not consider adopting the JTFAP guidelines in rule or law, as recommended in Section 5.3. Should the JTFAP guidance document be released to the public without substantial revisions, OSBGE, as the governing board for PGs and PEGs in Oregon, is obligated to notify all related jurisdictions that these guidelines do not adequately represent the legal practice, and should not be adopted into any code or ordinance. This guidance document needs significant additional work before being considered for use in the State of Oregon.

Please direct any follow-up correspondence on this issue to the OSBGE Administrator, Susanna Knight. OSBGE contact information is provided on the letter head.

Respectfully submitted by the Oregon State Board of Geologist Examiners,

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