



COLORADO ASSOCIATION OF GEOTECHNICAL ENGINEERS

November 5, 2015

CAGE



Upcoming Events

- November 11—CAGE Luncheon *Complex Support of Excavation: Secant/Tangent Pile Wall vs. Diaphragm Wall*
- December 17—CAGE and ASCE Luncheon *New Technologies for Landslide Mitigation and Bridge Abutment Construction/Rehabilitation*

Register online at
www.cagecolorado.org

Colorado Water Well Construction Rules

CAGE Board

CAGE Members

As you may recall The Colorado Water Well Construction Rules (Rules) opened for revisions in 2015 and the rulemaking process is well underway! Information posted by the Colorado Division of Water Resources states "The public process for this rulemaking is designed to give stakeholders — all who may be affected by a change in the rules — the opportunity to present their thoughts, ideas, and reasoned opinions on any proposed changes. A series of public meetings are planned to make sure your voice is heard and to identify the areas of the rules that are in need of change to ensure the protection of public health and the preservation of ground water resources. The statutory guidelines for the rulemaking process are contained in the Administrative Procedure Act (APA) found in the Colorado Revised Statutes Title 24, Article 4. **(C.R.S. 24-4-103).**"

A first and second draft have already been issued along with opportunity for public comment. Some of the CAGE Board members met with representatives of the Colorado Division of Water Resources in June to discuss some concerns with the proposed rule changes. Since that meeting the proposed schedule has been delayed and no further drafts have been issued so it is unknown if or how the concerns expressed by the CAGE members attending the meeting with the DWR have been addressed in the rule changes as they stand currently. As of Friday October 31, 2015 the CAGE BOD was notified that a third draft is now scheduled for issue in early January 2016 with a stakeholders meeting on January 5, 2016, and the final public hearing scheduled for March 15, 2016.

Some of the rule changes that have been discussed and are of concern at least to some include:

- If more than one measurement of the water level is made in any boring drilled solely for geotechnical purposes, the boring is considered a monitoring well by DWR and therefore subject to the current Notice of Intent rule. This is especially true if PVC pipe is temporarily placed in the boring to keep the boring

from caving until a static water level can be ascertained.

- Geotechnical borings are typically advanced through overburden soils and into the underlying bedrock formation that consists predominantly of claystone with lesser amounts of sandstone and siltstone. Most of the bedrock contains seams, lenses, and discontinuous layers of relatively more pervious sandstone and siltstone, and/or fractured rock which can contain water. According to the Rules a seam/lense/or layer of sandstone, siltstone, or even fractured bedrock within the claystone is considered an aquifer (i.e. 5.2.2 “..a hydrologic unit or interval of consolidated and/or unconsolidated geologic material that is capable of storing and transmitting water”) that is confined (i.e. 5.2.2.1 “Type I aquifer means an aquifer that is overlain by a confining layer of relatively impermeable geologic material. A Type I Aquifer is also known as a confined aquifer”). Accordingly a boring could only be drilled into this material by a licensed water well driller. Most geotechnical drilling companies are not licensed water well drillers. Further, the presence of such seams/lenses etc. would not and could not be known prior to drilling. Therefore, if the boring were drilled by an Authorized Individual (i.e. Registered PE in State of Colorado), they would technically be in violation of the Rules and therefore subject to penalties including fines. In this scenario, there is no way to anticipate drilling into a “Type I” aquifer as broadly defined by the Rules, so no prior Notice of Intent may have been provided or contemplated. If the CDWR says this should be anticipated, then all geotechnical borings drilled (i.e. hundreds a day) would require a NOI and drilling by a Licensed well driller as opposed to the geotechnical drilling companies that are presently doing the drilling and who are hired by an Authorized Individual. Please note, this scenario is commonly encountered in geotechnical borings, drilled piers, micropiles, helical piles, push piles, screw piles, tiebacks, and the installation of instrumentation such as settlement monuments and inclinometers.

As such, if the CAGE membership wants CAGE to have an official position and an official representative at the March 15, 2016 hearing, then a task force committee must be established immediately, the key issues must be identified and stated so that the membership can be polled and a consensus vote obtained. Otherwise, input is up to individual geotechnical firms and/or individual CAGE members acting independently.

CAGE is interested in your comments or opinions on this matter. If you wish to volunteer for the Task Force, or if you believe a task force is in order, or if you have any other comments or questions regarding this matter, please contact Becky at broland@cagecolorado.org or (303) 551-3266.

Call for Nominations

CAGE is currently seeking nominations for the Board of Directors. Any Professional Member can serve on all positions of the Board. If you are interested in being a part of the CAGE leadership, please contact Becky Roland at

broland@cagecolorado.org or 303-551-3266.

Professional Ethics in the 21st Century

The American Council of Engineering Companies of Colorado (ACEC Colorado) is hosting its Annual Ethics Seminar "Professional Ethics in the 21st Century: Meaning & Challenges" Presented by [Eli Wald](#) on Thursday, Dec. 3, 2015 from 7:30 a.m. – Noon at [Merrick & Company](#). In a day and age in which many consider business to be a morality-free zone, what is the meaning and content of professional ethics? Should we dismiss professional ethics as antiquated rhetoric and replace it with market-based principles and legal standards of professional competence? And, if not, what should rules of professional ethics consist of? This seminar will explore these and related questions offering participants practical insights on how to do well by doing right by touching on the [ASCE Code of Ethics](#) and [NSPE Code of Ethics](#) and whether they set the standards for behavior of engineers. [Click here for additional event details.](#)

ACEC Colorado would like to extend an invitation to members of NSPE/CO, ASCE/CO, SEAC, and CAGE. As a professional courtesy to our engineering organizational partners, we will offer seminar registration at member pricing (\$149/person).

[Click here to register online](#) and enter promotion code **ETHICS2015** on the final payment page to receive member pricing. Alternatively, if you wish to register via email, please email [Julie Ann Dill](#), ACEC Colorado | Education Services Coordinator.

Newsletter - November 5, 2015

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