

**EAOR #36, Policy Advisory Regarding the Engineering Aspects of Construction Management.
May 21, 2014**

Request: What are the engineering tasks associated with construction management?

Background: In the construction industry, it is generally understood that the duty of the construction manager is to:

- 1) Communicate with design professionals, trades, contractors, suppliers, inspectors, and safety personnel to enable efficient and economical scheduling and coordination of labor and materials on the jobsite.
- 2) Endeavor to keep the project on schedule and budget.
- 3) Administer the project in compliance with contract documents.
- 4) Log daily activities and conditions.

Just as all projects vary in scope and complexity, the duties of the construction manager also vary in scope and complexity. On some occasions, construction managers have been tasked with or have undertaken responsibilities that require engineering knowledge and expertise to safely and effectively perform.

Section 1001.302(c) of the Texas Engineering Practice Act (TEPA) states that supervision of construction work may not be counted as the active practice of engineering for the purposes of licensure:

1001.302 License Eligibility Requirements:

(c) For purposes of determining an applicant's qualifications under Subsection (a)(3), the board

may not consider as active practice in engineering work:

- (1) engineering teaching;
- (2) the mere execution, as a contractor, of work designed by an engineer; or
- (3) the supervision, as a foreman or superintendent, of the construction of work designed by an engineer.**

Analysis: During the execution of a construction project, approvals, material changes, change orders and design plan deviations, and other changes can occur. According to Texas Occupations Code (TEPA) Section 1001.003, changes that impact the engineering design or specifications require the services of a Texas licensed professional engineer. Specific activities include but are not limited to:

- 1) Approval of change orders or field changes that alter engineering plans and specifications in any way, including material substitutions.
- 2) Acceptance of construction materials per "Texas Board of Professional Engineers Policy Advisory Opinion Regarding Construction Materials Engineering", dated August 20, 2009.

- 3) Traffic control and trench safety plans per “Policy Advisory Regarding Procurement of Engineering Services by General Construction Contractors for Governmental Public Works Projects”, dated August 20, 2009.
- 4) Approval of shop drawings related to the structural, mechanical, electrical, and civil engineering designs.
- 5) Approval of conformance of completed construction to project specifications and design drawings.
- 6) Approval of any modification to any engineering design, specification or system.

In Summary: If a change order, design revision, or a design deviation affects an engineered design or specification, then a Texas licensed Professional Engineer must make the determination that the change or deviation is acceptable.