



DEPARTMENT OF JUSTICE
GENERAL COUNSEL DIVISION

MEMORANDUM

DATE: November 30, 2004

TO: Mari Lopez, Executive Secretary
Oregon State Board of Examiners for Engineering and Land Surveying

FROM: Kathleen Dahlin, Assistant Attorney General
Business Activities Section

SUBJECT: Practice of Engineering: Design of Fire Protection
DOJ File No. 917-001-GB0081-04

You ask whether designing engineered fire protection services is the practice of engineering subject to regulation by the Oregon State Board of Examiners for Engineering and Land Surveying (OSBEELS). The answer is yes.

This question arises because it has been a practice for several years for persons not licensed as engineers to design fire protection services and systems. In March 2004, the Professional Practices Committee reviewed the matter and expressed its opinion that fire protection is an appropriate branch of engineering, regulated by OSBEELS. Therefore, the committee reasoned, any fire protection design for a non-exempt building¹ requiring engineering experience or education must be stamped by a professional engineer. Since that time, the Building Codes Division (BCD) has begun enforcing the requirement. Complaints have arisen from persons who have historically performed these services but who are not registered professional engineers.

The "practice of engineering" is defined as:

(A) Any professional service or creative work requiring engineering education, training and experience; and

(B) The application of special knowledge of the mathematical, physical and engineering sciences to such professional services or creative work as consultation, investigation, testimony, evaluation, planning, design and services during construction, manufacture or fabrication for the purpose of ensuring compliance with specifications and design, in connection with any public or

¹ Certain buildings, notably those used as single-family residences and small commercial buildings, are exempt from these requirements. See ORS 672.060(10).

private utilities, structures, buildings, machines, equipment, processes, works or projects.

ORS 672.005(1)(a). Unless exempted, no person other than a registered professional engineer may practice or offer to practice engineering. ORS 672.020(1); 672.045(1).

OSBEELS is authorized to specify the branches of engineering for which examinations are offered and for registration of individuals and the issuance of certificates to individuals in those branches. ORS 672.225(1)(d). OSBEELS has specified several such branches, including that of "fire protection." OAR 820-010-0450(1).² OSBEELS administers an examination, prepared by the National Council of Examiners for Engineering and Surveying (NCEES) on the practices and principles of fire protection. The examination consists of 80 multiple choice questions and covers matters such as hazard and risk analysis techniques; the dynamics of fire; human response; design of water-based fire suppression systems (including hydraulic calculation techniques); design criteria and methods for special hazard systems; design of fire detection and alarm systems, including circuit classification and wiring methods; design of smoke management systems, including fluid mechanics; design criteria and methods for explosion protection and prevention; and construction requirements for passive building systems. NCEES Examination outline effective October 2004. If a person passes the examination and otherwise satisfies the requirements for licensure (including education and experience), OSBEELS will issue them a certificate as a registered professional fire protection engineer.

The design of fire protection services and systems falls within the purview of engineering. As such, it must be performed by a registered professional fire protection engineer.³

Regardless of whether OSBEELS or the BCD failed to enforce this requirement in the past, there is no requirement that those agencies continue non-enforcement. Rather, OSBEELS has an obligation under the statutes that it administers to take enforcement action against persons who perform engineering without being registered professional engineers. See ORS 672.020(1) (to safeguard life, health and property, no person may practice engineering without being registered to do so); ORS 672.300 (OSBEELS shall carefully investigate any complaints or information relating to violations of ORS 672.002 to 672.325).

² The other specified branches are acoustical, agricultural, chemical, civil, control systems, electrical, environmental, industrial, forest, mechanical, metallurgical, nuclear and structural. *Id.*

³ Other engineers are not permitted to practice this discipline absent competence to do so. See OAR 820-020-0020(1) (registrants shall undertake assignments only when qualified by education or experience in the specific technical fields of engineering involved).