

**ENVIRONMENTAL BUSINESS COMMITTEE
WHITE PAPER**

HAZARDOUS WASTE CERTIFICATION

Preamble

The hazardous waste practice is a complex, multi-discipline practice which requires the services of professionals in many technical fields. The practice is new and developing. EBC believes that a certification program for professionals will promote progress in the practice by addressing important needs. They are:

1. Firms providing hazardous waste services require trained and qualified professional employees. If a system of certification for each relevant technical discipline were in place, firms would be able to identify and develop these employees and prospective employees.
2. Clients who contract professional services want to be confident that team members assigned to their projects meet the basic training, knowledge and experience requirements expected for the current state of the practice and are capable of learning and applying new concepts.
3. Colleges and universities need to identify the educational programs they must offer to adequately train students to become professionals in disciplines relevant to the hazardous waste practice.
4. Clients and regulators need a mechanism to prohibit unqualified individuals from practicing and from promoting themselves as being qualified.

There recently has been a proliferation of certification programs offered by private organizations and/or required by government agencies. Some of these are sincere efforts to meet the four needs. Unfortunately, they do not succeed. One reason is that they attempt to identify and quantify technical capability without defining the criteria or requirements.

The dilemma results from the fact that the hazardous waste practice covers a wide range of environmental problems. Some are relatively easily defined, such as handling known chemical wastes by standard practices. For these types of problems, the standard of practice commonly is accepted and knowledge of the procedures can be tested. Those demonstrating knowledge can be certified.

Other problems are much more complex and the state of practice is rapidly changing. There is no accepted set of standard procedures that will lead to a successful solution of the problem. In fact, scientists and engineers are expected to rapidly bring innovative approaches to the field. For these more complex problems, the four goals of certification can be met by requiring a demonstration of fundamental knowledge of a technical field, such as environmental chemistry or hydrogeology, rather than a demonstration of currently known procedures.

EBC believes that certification by technical field or discipline, not by task or project type, better meets society's goals for professionals. Every project requires a team of professionals who, together, bring the skills required to adequately complete the work, and just as important, continue to learn and develop as the state of practice changes. Certification by technical discipline will develop a resource pool of technical professionals who will not only meet state of practice requirements for tasks currently needed by society, but who will also have the education and experience to help improve the state of practice.

The system of certification by discipline has been implemented by professional engineers through the licensing/registration laws adopted by the various states. Scientists should be certified by the science society that has historically represented those disciplines.

EBC believes that its member firms should have certified personnel identified and supplied by institutions that have no commercial benefit derived from the program. This will help build confidence in the public that the certification programs exist to meet the stated goals, not simply make a profit.

EBC believes its role is to encourage the appropriate societies to establish certification programs that are meaningful and to employ individuals who meet the requirements.

Certification, Licensure and Registration of Hazardous Waste Professionals

The hazardous waste practice is a complex, multi-discipline practice which requires the services of many different professionals, including experienced engineers of all kinds (civil, mechanical, chemical), geologists, geohydrologists, chemists, toxicologists, health specialists and others. EBC believes that the products of a hazardous waste study, design or other effort must be supervised and reviewed by professionals competent in the fields relevant to the project. EBC recommends that clients needing hazardous waste specialists exercise care in selecting those individuals and/or teams of such individuals to ensure that each is properly qualified for specific aspects of the project, as evidenced by the possession of the requisite credentials. It is acknowledged that there is no single credential that covers the spectrum of the practice.

The terms certification, licensure and registration as used here mean (there is a considerable variation in usage of these terms in different states and governmental institutions):

Certification represents recognition or approval by an organization for individuals to claim as an indication of their qualification in a profession. Certification programs are typically national in scope, voluntary, and have uniform standards. Certification is a voluntary mechanism for granting recognition to individuals in an occupation or profession who have reached a prescribed level of competence. Competence is generally measured by educational credentials, relevant work experience, and an examination.

Licensure often may follow from certification; government agencies license an individual to practice in a given profession if they are satisfied that the individual is competent. Licensure carries with it the requirement to practice within one's area of competence. Certification is often a significant measure by which governments determine competency. States have been given the right to regulate, by requiring a license, under the U.S. Constitution to preserve the health, morals, safety, and welfare of its citizens. Professions without certification are not precluded from practicing, if licensing (when it exists) does not hold certification as a prerequisite.

Registration commonly refers to the requirement that a practitioner file his or her name and address with a government agency. Registration may entail screening of the applicant by the agency; it may require that minimum practice standards be met. Registration may or may not exclude practice by non-registrants in the jurisdiction, but it is intended to offer some degree of order to the occupational community that clarifies for the potential client the available services.

Conclusions

1. To the extent that States require the licensed individuals to perform hazardous waste services, licenses should be issued on a discipline basis.
2. EBC recommends and supports the professional discipline licensure and certification programs that have as a basis of requirements: (1) minimum education; (2) adequate work experience; and (3) testing by written examination.
3. EBC does not recommend or support any of the current multi-discipline certifications, licenses or registrations.
4. EBC encourages the development of national certification programs for the other disciplines involved in the hazardous waste practice, such as chemists and toxicologists. EBC will facilitate dialogue with the appropriate organizations to implement such certification programs. EBC also recommends that states build licensure programs around such national certification programs.
5. EBC will consider support of certification programs that:
 - A. Are national in scope or are uniform state programs (i.e., national exam);
 - B. Effectively protect public health, welfare and safety;
 - C. Require the appropriate educational credentials;
 - D. Assure adequate knowledge of a body of information necessary to perform the certified function and test this knowledge by examination;
 - E. Require adequate working experience in the field of concern;

- F. Confirm the integrity of the certified individual; and
 - G. Provide for continuing professional development to maintain certification status.
6. States are urged to adopt uniform programs and maintain reciprocity with other states.
 7. EBC does not support registration programs that are a list of those people who have stated they offer certain services with no certainty that their qualification to offer those services have been verified.