

Water Environment Federation Position Statement

Wastewater Systems Operations Professionals¹ Certification and Training

Adopted by WEF Board of Trustees: May 7, 2011

Summary of WEF Position

Certification

Wastewater systems operations professionals should be subject to mandatory certification. WEF encourages every state, and all nations, to develop a mandatory certification program. For the U.S., WEF supports federally mandated requirements for wastewater operator certification under the Clean Water Act [similar to those already established under the Safe Drinking Water Act in 1999]. Until certification is mandated by governing bodies, WEF recommends that employers of wastewater systems operations professionals require it.

Training and Continuing Education

WEF encourages that every certification program require a minimum of applicable continuing education hours as a condition of maintaining certification licenses.

Funding

Funding for certification and continuing education programs should be sustainable (supported by utility revenues) to the extent practicable while not placing an undue burden on the wastewater systems operations professionals being certified or trained or on the facility owners. Additional federal support can assist development of national training resources and help support training and certification infrastructure at the state or provincial level.

Reciprocity

WEF encourages states and provinces to consider adopting universally standardized certification levels and requirements to advance reciprocating agreements. Reciprocating agreements would reduce costs for states and wastewater systems operations professionals by minimizing or eliminating unnecessary training on fundamental aspects of their respective field. These types of agreements would benefit wastewater systems operations professionals through an opportunity for increased mobility and transference of services across state and province boundaries.

¹Wastewater systems operations professionals include operators who work with treatment plants, collection systems, biosolids treatment, industrial pretreatment, etc.

Certified Wastewater Systems Operations Professionals Recognition

WEF encourages states and provinces to investigate the development of an official title for certified operators (e.g., “Certified Water Quality Professional”).

Background

According to a recent international poll², modern sanitation is considered to be the greatest medical advancement since 1840. The importance of waste disposal originally was recognized in the late 1800s, when deadly diseases first were linked to impure water. Modern wastewater systems — treatment plants, collection systems, biosolids treatment, and industrial pretreatment — involve highly regulated and increasingly complex processes. They require technically skilled staff to maintain process compliance and protect the environment and public health, which are valuable assets in every community.

Standards are essential to ensuring the integrity of the profession, especially with the new regulatory requirements and technologies wastewater systems operations professionals are facing each day. Skills and abilities required to operate and maintain wastewater systems vary depending on the region, and on the type and size of the system being operated and managed. Currently, certification and educational programs for operators and other wastewater professionals vary among states and provinces.

Demand for wastewater treatment plant and systems professionals is expected to grow by 20% through 2018³. The increasing need for qualified wastewater system operations professionals results from the number of operators who currently are retiring, as well as the additional treatment facilities being built to accommodate population growth. Even though federal licensing requirements are mandated for drinking water system operators in the United States, there are no universal standards for licensing or training wastewater operators. With no federal guidance to rely on, many states and provinces have developed their own programs to certify and train wastewater systems operations professionals.

The following are some challenges to maintaining the level of expertise required in the operation and maintenance of our wastewater systems:

- New regulatory requirements lead to higher levels of treatment and a zero tolerance for overflows from the collection system, which require wastewater professional staff to be knowledgeable in new technologies and control practices.

²From a January 2007 survey conducted on the Web site of *BMJ* (formerly the *British Medical Journal*). Votes came in from respondents in countries including Australia, Bulgaria, Canada, Germany, India, Italy, Spain, U.K. and the U.S.

³Bureau of Labor Statistics, U.S. Department of Labor. *Occupational Outlook Handbook, 2010-11 Edition, Water and Liquid Waste Treatment Plant and System Operators*.

- There is a growing focus on incorporating sustainable practices such as energy efficiency, energy generation, and green infrastructure at wastewater treatment plants and collection systems. These practices require expertise that is beyond the current body of knowledge.
- Not all states and provinces require the licensing of wastewater systems operations professionals and continuing education of those who are certified.
- Many certification programs are in jeopardy of being eliminated as a result of funding shortages.
- There is significant variation and inconsistency in certification programs and continuing education requirements among various states and provinces, resulting in difficulty obtaining reciprocity among programs.
- There is a projected shortage of qualified wastewater systems operations professionals because of retiring employees and the increasing size and complexity of wastewater infrastructure.
- It is difficult to recruit qualified professionals because of the lack of recognition of the wastewater profession and relatively low pay levels.

WEF POSITION

Certification

Wastewater systems operations professionals should be subject to mandatory certification. The Water Environment Federation (WEF) encourages every state and province, and all nations worldwide, to develop a mandatory certification program for wastewater systems operations professionals based on reasonable, appropriate, and applicable standards. Specifically for the United States, WEF believes there should be federally mandated requirements for wastewater operator certification under the Clean Water Act similar to those established under the Safe Drinking Water Act in 1999. The standards should be based on the appropriate level of expertise and experience required to properly operate and maintain the systems.

To the extent possible, WEF encourages states and provinces to adopt universal standards in developing their programs. At a minimum, certification programs must require that wastewater systems operations professionals demonstrate competency through testing, minimum educational qualifications, experience, and a signed code of ethics to become certified, and must require continuing education to maintain certification. Testing and applicable continuing education should be based on a standardized body of knowledge developed by organizations such as the Association of Boards of Certification, WEF, and WEF's Member Associations (MAs).

Until certification is mandated by governing bodies, WEF recommends that employers of wastewater systems operations professionals require it. This requirement will support the mission

of protecting public health and the environment by enabling properly operated and maintained wastewater treatment and collection systems.

Training and continuing education

WEF suggests that each certification program require a minimum of applicable continuing education hours as a condition of maintaining certification licenses. In order to be approved for certification, training should be relevant and applicable to the skills and knowledge necessary for the level of certification. Training that is approved by the certifying agency should be readily available to all certified wastewater systems operations professionals in a variety of delivery mechanisms, such as traditional classroom and distance-learning training, through as many provider networks as possible (*e.g.*, MAs, state environmental training centers, community colleges, universities, and apprenticeship programs).

Funding

Funding for certification and continuing education programs should be sustainable (*i.e.*, supported by utility revenues) to the extent practicable while not placing an undue burden on the wastewater systems operations professionals being certified or trained or on the facility owners. Additional federal support may assist in the development of national training resources, and help to support training and certification infrastructure at the state or provincial level.

Reciprocity

WEF encourages states and provinces to consider adopting universally standardized certification levels and requirements to advance reciprocating agreements. States and provinces should support opportunities to provide a pathway to reciprocity with other states and provinces. Reciprocating agreements would reduce costs for states and wastewater systems operations professionals by minimizing or eliminating unnecessary training on fundamental aspects of their respective field. Also, these types of agreements would benefit wastewater systems operations professionals through an opportunity for increased mobility and transference of services across state and province boundaries. Likewise, these agreements would allow water quality professionals to provide emergency support for wastewater treatment needs between states and provinces affected by natural disasters or acts of terrorism. The lack of reciprocal agreements for these professionals limits their economic freedom to pursue opportunities in other jurisdictions.

Certified Wastewater Systems Operations Professionals Recognition

The wastewater profession as a career path is not widely pursued. States, provinces, and professional organizations⁴ must perform more public outreach in order to promote the profession and generate interest. WEF also encourages states and provinces to investigate the development of an official title for certified operators (*e.g.*, “Certified Water Quality

⁴In 2010, WEF and the American Water Works Association jointly developed Work for Water, a national outreach program. The program urges people to explore careers that are professionally fulfilling and aligned to the greatest public health and environmental cause of our day. See www.workforwater.org for more information.

Professional”) as well as develop succession planning programs for recruitment and retention of wastewater professionals.

About the Water Environment Federation

Formed in 1928, the Water Environment Federation® (WEF®) is a not-for-profit technical and educational organization with 36,000 individual members and 75 affiliated Member Associations representing water quality professionals around the world. WEF and its Member Associations proudly work to achieve our mission of preserving and enhancing the global water environment. www.wef.org