

# Certified Water Technologist (CWT)

A Professional Certification for the 21st Century

## Introduction

The treatment of commercial and industrial water systems is a critical task in today's competitive business environment.

Allowing improper water treatment\* is detrimental to systems. This promotes corrosion, scale, fouling, and biological activity to occur that ultimately require costly remediations. Left uncorrected, systems will realize significant efficiency loss, increased mechanical failures, compromise system integrity, and a shorter operational life-span. Additionally, facilities may face production losses while systems are being repaired.



\*Note: The water treatment field is defined as treatment of boiler, cooling, process, potable, and wastewater systems associated with manufacturing facilities or HVAC operations.

Treatment of water systems is not a simple task; it requires specialized knowledge in the disciplines of chemistry, biology, metallurgy, physics, several branches of engineering, and considerable in-the-field experience. In spite of the substantial technical knowledge required to obtain acceptable performance, the water treatment field is poorly regarded due to having more than its fair share of “snake-oil remedies,” high-pressure salespeople, intense profit driven marketing, and many well-meaning, yet unqualified practitioners.

Historically, the industry has been dominated by a few large firms, several middle size firms, and over 800 smaller independent firms running from national firms to one-man operations. The large firms leverage their resources to create brands with day-to-day recognition which fosters a reputation of trust in their services.

However, there have not been generally recognized standards to demonstrate expertise in the water treatment field. Unlike many other professional fields such as law, engineering, or medicine, there have been no “recognized” courses of study, or professional designations such as PE or MD, to demonstrate expertise in the field. Water treatment is a “composite” occupation incorporating technical elements from many separate disciplines with no institutions providing defined courses of study, upon completion of which the graduate is a “water treatment expert.” It is interesting to note that in the public water and wastewater treatment field, the need to have competent individuals in charge of water and sewerage treatment facilities has long been acknowledged and shown by well developed license programs administered by state governments.

## Association of Water Technologies

In 1985, several of the independent water treatment firms formed the Association of Water Technologists (AWT), to provide members with technical education, industry communications, access to information, insurance coverage, and sound management techniques. Membership in the AWT enables members to become knowledgeable and stay up-to-date in the latest water treatment technology developments. This allows the members to provide sound water treatment solutions to their customers. Today, the AWT has over 500 member companies and is the recognized voice of the water treatment industry.

It was realized early on by the AWT membership that the water treatment field suffered from the lack of an easily recognized symbol of technical expertise. After much discussion, the AWT decided to devise a professional certification program to remedy this long-acknowledged problem. Following the same path used by other associations in the past, such as the Professional Engineers Society or the American Medical Association, the AWT set up a committee on professional certification.



The AWT committee on certification spent several years devising a certification program to demonstrate technical expertise in the water management field. The program includes:

- Recommended reading lists
- Industry technical courses and seminars
- Specific AWT sponsored certification courses, and
- The certification process itself

Upon completion of the certification process, any person satisfying the various criteria is awarded a certificate as a “Certified Water Technologist (CWT)”. This certification program is open to anyone and membership in the AWT is not required. Today, the certification test and scoring is administered by Assessment Systems, Inc., an independent testing service.

### Purpose

The purpose of the certification program is to provide a means for individuals in the water treatment field to obtain a legally defensible professional certification. The CWT provides recognition for individuals involved in water treatment. This indicates to the public, coworkers, employers, and others that an impartial organization has used a recognized method to assess the individual’s experience, knowledge, ethics, and education.

### Certification Program

The AWT certification committee, now a standing committee within the Association with membership limited to only certified individuals, with approval from the Association Board of Directors, has established the following certification program. Primary requirements to become a CWT are as follows.

1. The candidate must have a minimum of five (5) years acceptable work experience in the water treatment field. Acceptable work experience is documented experience in a position

related to industrial water treatment with general responsibility for:

- a) Direct sale and/or service of water treatment applications
  - b) Technical support of sales and/or service personnel
  - c) Technical consulting in the field of water treatment
2. The candidate must take a standardized examination administered by an independent service, with the exam covering all aspects of water treatment practices. The candidate must obtain a passing score to proceed with the process of obtaining their CWT designation. Note that the examination is considered difficult as the failure rate often exceeds 50% on a first-time basis.
  3. Following the exam, the candidate must provide a minimum of four (4) professional references who can verify their work in the water treatment field.
  4. The references must also verify that the candidate has conducted his work in an ethical manner.
  5. Additionally, the candidate must sign a Declaration of Ethics before being awarded his CWT certificate. This cornerstone document requires the CWT to act ethically in all facets of his professional life and be a proper representative for the industry.
  6. A CWT certificate must be renewed on a five (5) years basis. The renewal process requires that the CWT to accumulate a total of 25 approved continuing education credits (CEUs) during the five-year period of certification. By requiring continuing education to retain the CWT, individuals must continue to develop their technical skills.

### **CWT Program Benefits**

- a) Provides that a certified individual has a sound basic knowledge of water treatment and the experience to apply that knowledge.
- b) Builds confidence in the professionalism of certified individuals working in the water treatment field by securing a Declaration of Ethics.
- c) Encourages the growth in knowledge and understanding of the complexities of water treatment mechanisms through continuing dissemination of topical information to all professionals working in the field.
- d) Provides the certified individual with a sense of personal and professional achievement in their chosen field of industrial water treatment.

### **Value to the Industry**

To earn the AWT's Certified Water Technologist (CWT) designation, the water treatment individual must accumulate the knowledge and expertise to provide professional and valuable services to the industries serviced.

When employing a CWT, facilities will have a better trust in the individual's capabilities and, therefore, recommendations. The CWT, through continuing education and ethics, is recognized as a professional who has his clients' interests first and foremost. The Association feels strongly that these are the best business partners to meet your objectives now and in the future.

