Appendix A

WORK PROCESS SCHEDULE

AND

RELATED INSTRUCTION OUTLINE

DEVELOPED BY

Pool & Hot Tub Alliance (PHTA)

FOR THE OCCUPATION OF

Pool Maintenance & Service Technician (Existing Title: Swimming-Pool Servicer) O*NET-SOC CODE: 37-2011.00 RAPIDS CODE: 0838CB



Appendix A

POOL MAINTENANCE & SERVICE TECHNICIAN (Existing Title: Swimming-Pool Servicer) O*NET-SOC CODE: 37-2011.00 RAPIDS CODE: 0838CB

This schedule is attached to and a part of these Standards for the above identified occupation.

1. APPRENTICESHIP APPROACH

 \Box Time-based \boxtimes Competency-based \Box Hybrid

2. TERM OF APPRENTICESHIP

The term of the apprenticeship is reasonably expected to be completed within one and a half years with an OJL attainment of all competencies of the position, supplemented by the minimum required 182 hours of related instruction and up to 35 hours of as-assigned related instruction.

3. RATIO OF APPRENTICES TO JOURNEYWORKERS

The apprentice to journeyworker ratio is: 1 Apprentice to 1 Journeyworker.

4. **APPRENTICE WAGE SCHEDULE**

Apprentices shall be paid a progressively increasing schedule of wages based on either a percentage or a dollar amount of the current hourly journeyworker wage rate, which is: \$15.00 per hour.

Wage Schedule: 1st 6 months = \$12.00 per hour 2nd 6 months = \$13.00 per hour 3rd 6 months = \$14.00 per hour

Periodic review and evaluation of the apprentice's on-the-job learning and related technical instruction will be conducted in alignment with the wage schedule established. Once an employer determines that an apprentice has reached full competency, the apprentice can become a journeyworker and compensated at least at the minimum journeyworker wage. The minimum annual wage rates may be adjusted based on regional wage scales.

5. **PROBATIONARY PERIOD**

Every applicant selected for apprenticeship will serve a probationary period of 750 hours.

6. SELECTION PROCEDURES

Please see page A-16.



WORK PROCESS SCHEDULE POOL MAINTENANCE & SERVICE TECHNICIAN (Existing Title: Swimming-Pool Servicer) O*NET-SOC CODE: 37-2011.00 RAPIDS CODE: 0838CB

Description: Pool Maintenance & Service Technicians treat and maintain swimming pool, hot tub, and spa water. They are mainly responsible for testing the pH of the water, treating the water appropriately with chemicals, and fixing any leaks or cracks in the structure. They are also responsible for servicing equipment such as pumps, motors, and filters.

The term of the apprenticeship shall be defined by the attainment of competencies, both technical and behavioral, of the apprenticeship as listed in the tables reasonably within one and a half years of OJL.

Competency in the work processes outlined herein can be demonstrated through a variety of venues including: observation, proficiency demonstration/aptitude exam, questions and answers, learner's products, simulations, project work, and/or mentor testimony or evidence all as demonstrated on the job.

PHTA will assess each apprentice's prior experience to determine what credit for advanced standing will be awarded for work processes schedule (WPS) and Related Instruction (RI). Prior experience will be assessed through resumes, interviews, PHTA job assignments and/or demonstration of competencies. Assigned mentors will assess apprentices for credit for prior experience at any time during the probationary period.

The following competencies will be rated, when applicable, on a scale of 1 through 5:

- 1 Novice; Requires constant supervision
- **2** Beginner; Needs improvement in quality of work
- 3 Intermediate; Meets basic requirements
- **4** Proficient; Goes above and beyond expectations
- **5** Senior; Always gets results far beyond what is required

Apprentices will advance in the program by demonstrating proficiency (4 – Proficient) in each of the competencies for the occupation. The supervisor will evaluate each apprentice at least once a year. Apprentices need to receive at least a "4 – Proficient" ranking in each category, that is applicable, in each of their twelve-month reviews during the apprenticeship in order to be considered for any wage increases and to have successfully completed the apprenticeship.



Apprenticeship Competencies – Technical

The following are the pool maintenance & service technician related work processes for the apprenticeship.

	Core Work Processes	Rating	Validated	Date
			Ву	
А	Develop and practice worksite safety and maintain safe work environments			
В	Evaluate equipment & fixture performance for proper operating conditions and/or replacement			
C	Perform chemical analysis and dispense chemicals to industry & regulatory standards			
D	Calculate water flow and turnover rates and determine pump & filter sizes and perform preventative and scheduled maintenance			
Е	Maintain chemical and biological distribution systems			
F	Maintain and program timers and control systems			
G	Perform pool, spa & hot tub cleaning and maintenance			
Н	Perform customer service			
Ι	Perform chemical analysis and dispense chemicals to industry and regulatory standards which includes service and maintenance of chemical treatment systems			
J	Determine structural and surface conditions and failures of pools, hot tubs, and spas. Determine leaks and warranty procedures.			
К	Service, maintain and troubleshoot pool, hot tub, and spa control systems			
L	Identify water filtering system types; determine operational performance, change/clean to meet acceptable standards.			
М	Service, maintain and troubleshoot pool, hot tub and spa operating systems			

The above on-the-job-learning (OJL) work process schedule is intended as a guide. The WPS need not be followed in any particular sequence, and it is understood that some adjustments may be necessary in the percentage of time spent in each of the work processes to allow for different work experiences. In all cases, the apprentice is to receive sufficient work experiences to make them fully competent and use good workmanship in all work processes, which are a part of the industry. In addition, the apprentice shall be fully instructed in safety and OSHA requirements.



Apprenticeship Competencies – Behavioral

In addition to mastering all of the essential technical competencies, an apprentice must consistently demonstrate at an acceptable level the following behavioral competencies in order to complete the apprenticeship.

Item #	Behavioral Competencies
1	Participation in team discussions/meetings
2	Focus in team discussions/meetings
3	Focus during independent work
4	Openness to new ideas and change
5	Ability to deal with ambiguity by exploring, asking questions, etc.
6	Knows when to ask for help
7	Able to demonstrate effective group presentation skills
8	Able to demonstrate effective one-on-one communication skills
9	Maintains an acceptable attendance record
10	Reports to work on time
11	Completes assigned tasks on time
12	Uses appropriate language
13	Demonstrates respect for patients, co-workers and supervisors
14	Demonstrates trust, honesty and integrity
15	Requests and performs work assignments without prompting
16	Appropriately cares for personal dress, grooming and hygiene
17	Maintains a positive attitude
18	Cooperates with and assists co-workers
19	Follows instructions/directions
20	Able to work under supervision
21	Able to accept constructive feedback and criticism
22	Able to follow safety rules
23	Able to take care of equipment and workplace
24	Able to keep work area neat and clean
25	Able to meet supervisor's work standards
26	Able to not let personal life interfere with work
27	Adheres to work policies/rules/regulations



RELATED INSTRUCTION OUTLINE POOL MAINTENANCE & SERVICE TECHNICIAN (Existing Title: Swimming-Pool Servicer) O*NET-SOC CODE: 37-2011.00 RAPIDS CODE: 0838CB

The related instruction has been developed in cooperation with the employer as part of the Pool Maintenance & Service Technician apprenticeship. This instruction shall include minimum recommended 144 hours of related instruction (RI) throughout the apprenticeship and up to 35 hours of as-assigned related instruction. The curriculum is defined as a variety of courses, including self-directed web-based courses with oversight by a trainer, around which the exams and projects are based. By defining the RI this way, all competencies required of the apprentices are met, through project work.

PHTA will assess each apprentice's prior learning to determine what credit will be awarded for the RI, as well as for meeting the prerequisite and completion requirements of the pre-apprenticeship. Prior learning will be assessed through transcripts, certifications, course credits, and/or demonstrated skills. Assigned mentors will assess apprentices for credit for prior learning at any time during the probationary period.

COURSE TOPICS

CORE COURSE TOPICS	HOURS
Pool Operator Primer	10
PHTA Certified Maintenance Specialist (CMS) Course	30
PHTA Certified Service Technician Course (CST)	34
Recreational Water Illness	8
Aquatic Play Feature	12
Start-Up Technician Course and Certification	16
Heat Stress of Combustible Liquids	4
Pool Chemistry Certification	8
Fundamentals of Hazardous Materials	4
Discrimination-Fee Workplace	4
Confined Spaces	4
Sexual Harassment for Employees	10
Personal Protective Equipment	6
Hazardous Waste Management	4
Indoor Pool Air Quality	6
International Swimming Pool & Spa Code Training	6
World Aquatic Health Conference Education	12
First Aid and Safety	4
Total Core Hours	182

The following are the technical course topics for the apprenticeship.



AS-ASSIGNED COURSE TOPICS	HOURS
PHTA Certified Hot Tub Technician (CHTT) Course	26
The Value of Ancillary Chemicals in Pool Maintenance	1
Basic Water Chemistry for Service Professionals	1.5
Prevention of Recreational Water Illnesses	1
How to Prepare for Federal Pool Pump Regulations	1
Pool Disinfection: Stories from the Field	1
Practical Considerations for Pool Management	1
Advanced Water Purification Technologies	1.5
Analysis and Understanding of Source Water	1
Total Hours	35

CORE COURSE TOPIC DESCRIPTIONS

POOL OPERATOR PRIMER

This dynamic program for pool operators, service technicians, facility managers and environmental health officials is a great stand-alone eight-lesson online training course or it can be the first step toward earning a Certified Pool/Spa Operator® (CPO®) Certification. Understanding fundamentals of pool and spa operation and safety reduces risk, decreases liability, and creates value for customers. Successful completion of all eight lessons earns a Record of Completion.

Learning Objectives:

- Identify code requirements.
- Understand inspection, operation, and maintenance procedures.
- Recognize components of a circulation system.

PHTA CERTIFIED MAINTENANCE SPECIALIST (CMS) COURSE Hours: 30

The Maintenance Specialist program provides students a breakdown of required education to safely and adequately maintain a water vessel. Students will examine multiple modules, including chemistry, calculations, water quality, structures and finishes, circulation, heaters, controls, filtration, and electrical components. Upon successfully completing the course and CMS certification exam, students will have earned the certification title of CMS. The course fee includes the CMS exam that will be proctored in class during the event.

Learning Objectives:

• Review safety and health protocols: including chemical and electrical safety, drowning and accident prevention, and environmental conditions.

- Calculate proper pool mathematics.
- Examine electrical components, heaters, filtration, chemical feeders, and control systems.
- Analyze proper maintenance planning.

PHTA CERTIFIED SERVICE TECHNICIAN COURSE (CST)

The Service Technician Course (CST) provides 24-hours of education for service technicians looking to elevate their knowledge. The course reviews common problems regarding pool finishes and

Hours: 34



examines potential solutions. Students will explore circulation, filtration, hydraulics, and electricity, culminating in a well-rounded understanding of potential problems and solutions. The exam fee is included in registration and will be proctored on-site. Upon successful completion of the course and CST certification exam, students will have earned the certification title of CST.

Learning Objectives:

- Identify pool finish problems and solutions.
- Review best circulation practices.
- Examine filtration, hydraulics, and electrical functions.

RECREATIONAL WATER ILLNESSES

The Recreational Water Illnesses (RWI) online training course provides a comprehensive and detailed understanding about the control of RWIs. Created for operators, managers, service companies, suppliers, and health officials, the course takes the participant through the basic steps of identifying the health threats present, unique features to those threats, understanding what the possible consequences would be, identifying ways to reduce the risks and, finally, prioritizing the risk reduction. The dynamic learning experience includes narration, images video, and interactive activities, and a copy of the Recreational Water Illnesses handbook.

Learning Objectives:

- Examine risk management for RWIs.
- Discuss microbes and disease.
- Identify gastrointestinal, dermal and respiratory RWIs.
- Discuss methods for controlling of RWIs.

AQUATIC PLAY FEATURE

Designed for those who operate, manage or service an aquatic play feature, large or small, the goal of this course is to provide understanding on how to manage facilities with water features. The course focuses on the proper operation of these unique features, as well as risk reduction to the users, employees, and the facility itself. An illustrated, full color handbook is included with the online course.

Learning Objectives:

- Define the different types of aquatic play features.
- Discuss how to maintain good water quality.
- Review unique staff and public management guidance.

START-UP TECHNICIAN COURSE AND CERTIFICATION

This program certifies individuals to the National Plasterers Council (NPC) Industry Standards in the proper startup of plastered pools. The startup process is the key event in bringing your pool to life! Proper start up is the first step in pool owners realizing the full value and longevity of their investment. The course will cover five primary areas: The History and Chemistry of Swimming Pool Surfaces, Basic Water Chemistry, Using a Water Test Kit, Start-Up Procedures and Pool Surface Start-Up Problems and Solutions. The course will include a live exam in the proper methods of testing water and conclude with a sixty (60) minute written test.

Learning Objectives:

- Examine proper swimming pool start up using NPC's method
- Discuss potential problems during the start-up process and how to remedy them

Hours: 16

Hours: 12

HEAT STRESS OF COMBUSTIBLE LIQUIDS

The goal of this course is to provide awareness training to help workers correctly apply the principles of hazard recognition, safety, flashpoint protection, and inventory inspections in the use of flammable and combustible liquids in the workplace.

Learning Objectives:

• Identify the definitions and terms associated with flammable and combustible liquids used in the workplace.

- Recognize hazards inherent with work involving flammable and combustible liquids.
- Identify the safety requirements for the use of flammable and combustible liquids on the job.
- Recognize the storage requirements for flammable and combustible liquids at a work facility.
- Identify the principles of flashpoint protection when working with flammable and combustible liquids.

• Identify the steps for inspecting inventories of flammable and combustible liquids in the workplace.

POOL CHEMISTRY CERTIFICATION

The Water Chemistry Basics online training course is designed to provide retailers, builders, distributors, manufacturers, or those new to the industry knowledge on the basics of water chemistry, water testing, and chemical dosing. The course will provide the basic knowledge required to effectively serve customers.

Learning Objectives:

- Define what is water balance.
- Examine proper disinfectants.
- Calculate the breakpoint for proper chlorination.
- Discuss how to handle fecal related contamination and other recreational water illnesses.

FUNDAMENTALS OF HAZARDOUS MATERIALS

This course provides general awareness training of the basic requirements of the Department of Transportation (DOT), including the definition of hazardous materials. Employees who are responsible for the transport of hazardous materials will become familiar with regulations related to packaging, marking, labeling and shipping papers. This course can be used for either new employees or as recurrent training.

Learning Objectives:

• Explain the function and importance of packaging, package labels, package marking, shipping papers, and vehicle placards.

- Identify the nine hazmat classes and their divisions.
- Explain the DOT rules for using the proper shipping names and the Hazmat Table.

DISCRIMINATION-FREE WORKPLACE

This lesson provides employers and managers an awareness of issues relating to discrimination in the workplace and practical considerations for avoiding discriminatory practices, including discrimination associated with race, color, religion, sex, national origin, age and physical or mental disability.

Learning Objectives:

Hours: 4

Hours: 4

Hours: 4

- State what constitutes employment discrimination.
- Identify the federal discrimination laws in place to protect individual workers' rights.
- Recognize the importance of promoting a discrimination-free workplace.
- Identify recommended guidelines for employers and managers.
- Discuss the actions taken if a discrimination charge is made.

CONFINED SPACES

This course educates all general industry employees about the existence of confined spaces, the type of hazardous conditions that can be present, and the basic requirements for entry into permit-required confined spaces.

Learning Objectives:

- Identify characteristics and examples of a confined space.
- Identify hazards of confined spaces.
- Identify the differences between permit-required and non-permit-required confined spaces.
- Recognize the basic requirements of a permit-required confined space entry program.

SEXUAL HARASSMENT FOR EMPLOYEES

The goal of this course is to train employees to recognize, to report, and to prevent incidents of sexual harassment in the workplace.

Learning Objectives:

- Define sexual harassment.
- Identify behaviors that might be considered sexual harassment.
- Identify the proper actions employees should take if they experience or witness sexual harassment.
- Discuss personal liability and the liability of others when sexual harassment takes place.

PERSONAL PROTECTIVE EQUIPMENT (PPE)

The goal of this course is to enable individuals to protect themselves from illness or injury by the appropriate use of personal protective equipment. The course includes lessons on Eye & Face Protection, Hand Protection, Head Protection, Hearing Protection, Foot Protection, and Respiratory Protection.

Learning Objectives:

- Define the purpose of personal protective equipment.
- Identify proper personal protective equipment required to perform particular jobs.
- Examine the training required before using PPE, including the limitations of the PPE.

• Identify the requirements for inspecting, maintaining, and disposing of personal protective equipment.

HAZARDOUS WASTE MANAGEMENT

This course examines hazardous waste, recognizes the standards that regulate hazardous waste, and identifies hazardous waste management requirements.

Learning Objectives:

• Identify the purpose of a waste management program.

Hours: 4

Hours: 10





• Define the categories of waste, including hazardous, universal, "potentially' hazardous, and nonhazardous.

• Identify the purpose for regulating hazardous waste, which regulatory standards apply to hazardous waste management and the three classifications of waste generators under Resource Conservation and Recovery Act (RCRA).

- Identify transportation and disposal requirements for hazardous waste.
- Identify the requirements for emergency preparedness and contingency planning.
- Recognize the requirements for training personnel, reporting, and recordkeeping.

INDOOR POOL AIR QUALITY

This course aims to provide awareness training to help employees recognize the occupational hazards and health effects of indoor air contaminants and controls to help maintain good indoor air quality.

Learning Objectives:

- Define the term 'indoor air quality'
- Recognize the consequences of indoor air contamination.
- Recognize the causes and sources of the major indoor air contaminants.
- Identify the health effects and major risks of indoor air contamination.
- Identify controls to help maintain good indoor air quality.
- Includes ASHRAE standards for indoor air quality for indoor swimming pools.

INTERNATIONAL SWIMMING POOL & SPA CODE TRAINING

This course is designed to help builders and inspectors understand the many changes to pool construction, including calculations of total dynamic head (TDH), Suction-Outlet Fitting Assemblies (SOFAs), barriers, and additional construction requirements. The course addresses the code regarding quality, safety, energy, and conservation per the ANSI/PHTA approved standards.

Learning Objectives:

- Review code definitions.
- Examine International Code Council(ICC)/Pool & Hot Tub Alliance (PHTA)/ American National Standards Institute (ANSI) Standards within the code.
- Examine entrapment; TDH; sanitation; disposal; storage.
- Review heaters, pumps, and filtration.
- Identify hydraulic design and data requirements for permit approval.
- Calculate TDH.

WORLD AQUATIC HEALTH CONFERENCE EDUCATION

The World Aquatic Health Conference produces more than thirty educational seminars focused on aquatic and water health annually. Sessions range from recreational water illnesses, disinfection practices, code and compliance education, team and peer training, and more.

Hours: 12

Hours: 6

FIRST AID AND SAFETY

This course is designed to teach the participant to be prepared for unexpected situations on the job site and workplace with first aid and safety training.

Learning Objectives:

- •Basic First Aid Training
- •Performing First Aid
- •Key Safety measures for pool and hot tub professionals

AS-ASSIGNED COURSE TOPIC DESCRIPTIONS

PHTA CERTIFIED HOT TUB TECHNICIAN (CHTT) COURSE

The Hot Tub Technician course provides students a range of practical knowledge on servicing and troubleshooting factory-built hot tubs, regardless of brands. Industry experts will provide hands-on experience regarding hot tub chemistry, examine electrical systems, circulation, and filtration while learning tips and tricks for basic repairs to interior surfaces. The course fee includes the CHTT exam that will be proctored during the event. Upon successful completion of the course and CHTT certification exam, students will have earned the certification title of CHTT.

Learning Objectives:

- Review basic safety considerations for tools used on the job.
- Explain the concept of volts, amps, ohms, and conductors.
- Describe circulation system components and hot tub plumbing configurations.
- Identify key factors in potential pump motor replacement.
- Identify major functions of components of the control unit.

Hour: 1 THE VALUE OF ANCILLARY CHEMICALS IN POOL MAINTENANCE

Are you looking for ways to maximize your water quality and chemical efficiencies? Then join us for this PHTA webinar as instructor guides you through the addition of chemicals beyond just sanitizers and oxidizers. We will examine ways to improve water clarity, bather comfort, and reduce maintenance issues, and define what products and technology can impact the swimming experience beyond just keeping bathers safe from disease.

Learning Objectives:

- Examine the impact that specialty chemicals can have on water quality
- Create a pool maintenance plan that maximizes efficiency and bather experience
- Review pool chemicals beyond sanitizers and oxidizers

BASIC WATER CHEMISTRY FOR SERVICE PROFESSIONALS

During this 90-minute session, instructor will provide a basic introduction to pool water chemistry. This course is especially beneficial for those new to the industry or those focused on residential service.

Learning Objectives:

- Identify the challenges of source water
- Define why pool chemicals are necessary
- Review the properties of chlorine in water



Hours: 26

Hours: 4

Hour: 1.5

• Examine chlorine and water balance

PREVENTION OF RECREATIONAL WATER ILLNESSES

During this session, we will examine pathogens responsible for disease outbreaks and how to combat them. We will review the advantages and disadvantages of different disinfectants, along with the recommendations in the ANSI/Association of Pool and Spa Professionals (APSP-11) standard. **Learning Objectives:**

- Identify common pathogens that cause Recreational Water Illnesses (RWIs)
- Examine recent changes to ANSI/APSP-11

• Define Remediate Bodily Fluid Contamination, per Center for Disease Control and Prevention (CDC) Recommendations

• Discuss pros and cons of different disinfection systems

HOW TO PREPARE FOR FEDERAL POOL PUMP REGULATIONS Hour: 1

In July 2021, new federal regulation for energy-efficient pool pumps goes into effect, and it will eliminate the poorest performing pool pumps from the market. Compared to other home energy items, pool pumps are often cited as the second-highest usage of home energy followed by heating and cooling systems. As many homeowners wish to save energy and reduce their energy expenses, purchasing energy-efficient products, including pool pumps, allows consumers to benefit from ENERGY STAR rebates and long-term energy savings. Attendees of this session will review information on the U.S. Department of Energy (DOE) pool pump regulations and how to address this issue with their customers effectively.

Learning Objectives

- Explain U.S. Department of Energy (DOE) pool pump regulations
- Identify the types of pool pump designs that will be impacted by the new regulation
- Discuss product ratings, ENERGY STAR, and how it affects other national and state standards
- Communicate the benefits of energy-efficient pool pumps to how to peers and customers.

POOL DISINFECTION: STORIES FROM THE FIELD

From chemical and microbiological contamination resulting from both environmental and anthropogenic sources, several challenges are facing the pool operator. Microbial contamination in pools can range from nuisance, as in algae, to serious health risks in the form of pathogenic bacteria and parasites. Best practices to achieve clean and sanitary water have varied over the decades as a function of time, geographical location, and type of venue. These changes in practices have included assay methods, minimum disinfectant levels, changes in filtration type, turnover rates, and pathogens of concern. This presentation will consider examples from the scientific literature with an emphasis on practical learnings from real pools. Decades of interest from scientists and public health officials have provided us with valuable insights and case studies about when disinfection failures occur.

Learning Objectives:

- Examine proper pool disinfection
- Review sanitation field studies



Hour: 1

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PRACTICAL CONSIDERATIONS FOR POOL MANAGEMENT

Outbreaks of recreational water illness readily fall into two categories: chlorine sensitive and chlorine resistant. Designing adequate management systems to prevent these illnesses requires understanding how each type occurs. The prevalence of these easily controlled RWIs and the reports of widespread closures during an inspection indicate a widespread systemic failure in management at many facilities. This presentation will focus on numerous practical considerations that can be implemented to reduce both the chlorine-sensitive and chlorine-resistant RWI outbreaks. **Learning Objectives:**

- Identify the most common operating parameters leading to facility closure
- Identify instances where each type of mismanaged parameter has resulted in RWI outbreaks
- Describe how improved management practices can prevent RWI outbreaks

ADVANCED WATER PURIFICATION TECHNOLOGIES

Long after the pool is built and the excitement of this beautiful new addition to their home is completed the client is left with one on-going issue: water quality. No matter how beautiful the water feature is, if the water quality is poor the experience is greatly diminished. Learn how to improve water quality and prevent recreational water illnesses while simultaneously reducing the chlorine and pH chemicals in the water. Provide your client with the best possible water quality for a long-term satisfied customer.

Learning Objectives:

- Describe chlorine, ozone, and ultraviolet sterilization technologies for the watershaping industry.
- List facts and fallacies of alternative water purification technologies.
- Outline a strategy for properly sizing ozone generators, injectors, contact tanks, and other components.
- Discuss how to market, value, and sell advanced water treatment systems.

ANALYSIS AND UNDERSTANDING OF SOURCE WATER

Pool openings and the routine filling of swimming pools can be a surprise source of problems for pool operators service and start-up technicians. Source water composition can impact overall swimming pool chemistry and unexpected changes in source water can have large consequences on pool management strategies. This discussion will include the problems associated with using chloraminated water to fill pools, common problems encountered with fill water, such as high total dissolved solids (TDS) and metal concentration, and information on testing interferences.

Learning Objectives:

- Examine the different types of source water
- Define how these sources are managed
- Discuss what effects your source water can have on the operation of your pool metals, chloramination, total dissolved solids, nitrates and phosphates, other factors

• Explain how to test your pool water and how to overcome some common problems encountered when testing



Hour: 1

Hour: 1.5



SELECTION PROCEDURES

When an apprenticeship opening occurs, one or more of the following procedures will be followed:

A. Alternative selection method

The sponsor may select apprentices by any other method, including its present selection method, provided that the sponsor meets the requirements listed in 29 CFR §§ 30.10(b). This may include one or more of the following steps:

- A. Sponsor will schedule an interview and evaluation session. All applicants who have met the minimum qualifications and have submitted the required documents will be notified of the date, time, place and/or method for the conduct of the interview. The recruiter/interviewer will record the questions asked and the general nature of the applicant's answers during this interview process. The sponsor's selecting official will evaluate each applicant interviewed on like factors taking into account the information on the application and required documents, as applicable using an Interview Guide.
- B. Upon completing all interviews and analyzing the applicants' qualifications the sponsor's selecting official will make a determination using the annotated Interview Guides. Applicant(s) with the highest evaluation will be selected first. The selected applicant(s), depending on the number of vacancies offered by the advertised announcement, will be offered employment in order of evaluation and upon acceptance of employment will be placed in the apprenticeship program.
- C. Selected applicants must respond to the offer of employment within 48 hours of notice of selection. If applicant(s) do not respond within the period specified, the sponsor will move past their name to the next applicant in the pool. Applicants passed over will be contacted by the sponsor by email and/or phone to determine if the applicants are still interested. If no response is received in fifteen (15) working days from this notice, the applicant's name will be removed from the pool.
- D. After all offers of employment have been extended and accepted by the selectee(s), as applicable, the remaining applicants in the pool of eligibles will be notified of their non-selection under this vacancy announcement. The non-selection notice will also include instructions on how they can apply for any future openings.
- E. Qualified applicants remaining in the pool of eligibles will be kept on file for a period of two(2) years, unless the applicant is removed from the pool by their own written request or following failure to respond to an offer of employment.
- F. During the two (2) year period, to update their status in the pool of eligibles, applicants who feel that their qualifications have improved since their original placement in the pool may submit evidence of such additional experience and/or training by updating their candidate



profile and request reevaluation or by simply submitting a new application for subsequent vacancy announcements.

B. Selection from pool of current employees

The sponsor may select apprentices from an eligibility pool of the workers already employed by the program sponsor or by the sponsor's established promotion policy. The sponsor adopting this method of selecting apprentices shall establish goals for the selection of minority and female apprentices, unless the sponsor concludes, in accordance with the provisions of 29 CFR §§ 30.10(b) that it does not have deficiencies in terms of underutilization of minorities and/or women (minority and nonminority) in the apprenticeship of journeyworker occupations represented by the program.

The decision of the Company with respect to the selection of apprentices is final.