



Inland Empire Utilities Agency

A MUNICIPAL WATER DISTRICT

Intern and Volunteer Wastewater/Water Operator In Training Program



July 2015

Introduction

Inland Empire Utilities Agency is a regional sewage treatment and water agency that provides sewage treatment, solids waste handling, and recycled water to the west end of San Bernardino county. Its 242 square mile service area includes the cities of Upland, Montclair, Ontario, Fontana, Chino, Chino Hills; Cucamonga County Water District which services the City of Rancho Cucamonga; State of California correctional facilities; and the unincorporated areas of San Bernardino County, including the Chino Agricultural Preserve. The Agency, a special assessment district, is governed by a five seat publicly elected Board of Directors. Each director is assigned to one of the five divisions which are: Division 1-Upland/Montclair; Division 2-Ontario/ Agriculture Preserve; Division 3- Chino/ Chino Hills; Division 4- Fontana; Division 5-Rancho Cucamonga. The Regional Technical and Policy Committees provide information on technical and policy issues, with representatives from each of the five divisions on these committees.

Five regional water reclamation plants are used to treat sewage from the Agency's service area. They are: Regional Plant No. 1 (RP-1), located in the City of Ontario; Regional Plant No. 2 (RP-2), located in the City of Chino; Regional Plant No. 4 (RP-4), located in the City of Rancho Cucamonga; and Carbon Canyon Water Recycling Facility (CCWRF), located in the City of Chino and Regional Plant No. 5 (RP-5) located in the City of Chino.

Program Goal

The goal of the Inland Empire Utilities Agency Intern and Volunteer Wastewater/Water Operator in Training (OIT) Program is to prepare qualified individuals for a career in the water industry. The OIT program will assist individuals in becoming well trained, certified Wastewater/Water Treatment Operators who are competent and qualified to perform their duties in a safe, permit-compliant, and professional manner.

Program Overview

The Inland Empire Utilities Agency (IEUA) Intern and Volunteer Operator in Training Program has been established to provide participants with the opportunity to gain practical field experience by working under direct supervision of certified Wastewater/Water Treatment Operators. Participants will have the opportunity to work at one of IEUA's wastewater and or water treatment plants. The availability of paid OIT intern ships will be dependent on budgeted funds. The number of OIT Volunteers will be limited as follows; RP-1 a maximum of 6, Desalter a maximum of 4, RP-4, RP-5, CCWRF, and RP-2 a maximum of 2 per facility.

Requirements for Entry and Continuance in the OIT Program

There are two sets of mandatory requirements for entry and continuance in the OIT Program. The first set is stipulated by IEUA Management, and the second set being stipulated by the State Water Resources Control Board (SWRCB) Office of Operator Certification.

1) Requirements for acceptance and continuance in the IEUA Intern and Volunteer OIT Program as stipulated by IEUA Management.

- a. When a position is open, OIT candidates will be required to submit an application to the IEUA Human Resources Department.
- b. OIT candidates will be selected for appointment to the open OIT position as the result of a competitive process. The process will include a review of education, certification and work experience as stated in the candidate's applications. Once applications have been reviewed, the candidates deemed most qualified will be invited to participate in an oral interview. The final selection will be based upon the results of the interview and successful completion of a background check, drug screen, and physician's physical.
- c. In order to meet the 1,800 hour experience requirement set by the State Water Resources Control Board for Operator Certification, candidates must agree to volunteer a minimum of 20 hours per week. At the rate of 20 hours per week, candidates will accumulate 1,800 hours in approximately two years. Candidates will select a set schedule block based upon availability and will be allowed to work between the hours of 6:00 AM and 4:00 PM seven days a week.
- d. Once accepted into the program, an Intern/Volunteer's OIT's work performance and progress will be monitored and evaluated on a regular basis. Continuance in the OIT Program will be contingent upon receiving a satisfactory performance evaluation and making satisfactory progress through the training program.
- e. It is the responsibility of the OIT to maintain a "personal" log-book documenting all daily activities. The log-book will be updated at the conclusion of each working day and will need to be signed by the Training Operator to document hours worked. Additionally, OITs will be required to maintain accurate hours in the OIT tracking spreadsheet which will be submitted to the Chief Plant Operator on a monthly basis for review and signature.

2) Requirements for acceptance and continuance in the IEUA OIT Program as stipulated by SWRCB

- a. Upon acceptance into the IEUA Intern/Volunteer OIT Program, participants are required to submit to the Chief Plant Operator an application for an OIT Certificate or a Certificate at the Grade I/T1/D1 and or Grade II/T2/D2 level.
- b. A valid Certification must be maintained and posted in accordance with the SWRCB regulatory requirements.

Operator in Training Program

The OIT Training Program Administrator (PA), will be responsible for all aspects of program implementation. The overall program will consist of two components; the Academic Education Component (AEC) and the Practical Experience Component (PEC).

Subjects Covered During Training

The AEC and PEC training will cover the process/subject areas listed below. The training will include an AEC and a PEC for each process/subject area. The AEC and PEC training efforts for each process/subject area will be taught/learned simultaneously and will be implemented in such a way that they reinforce each other.

The process/subject area training will take place in the sequence listed below. An OIT will not be allowed to progress to the next area of training until he/she has completed training and demonstrated competence in the preceding area. The time allotted for the OITs to complete both the AEC and the PEC training for each of the process/subject areas is listed below.

Process/Subject Area	Time Allocated
1. Facility Overview, Safety, Regulatory Compliance	80 Hours
2. Preliminary Treatment	80 Hours
3. Primary Treatment	100 Hours
4. Secondary Treatment	200 Hours
5. Tertiary Treatment	200 Hours
6. Digestion and Solids Handling	300 Hours
7. Recycled Water	80 Hours

Though OITs will be able to complete all AEC and PEC training in one year while volunteering/interning 20 hour per week, OITs still need to complete a second year of volunteering/interning at 20 hour per week in order to accumulate the 1,800 hours of qualifying work experience mandated by the SWRCB.

During the second year, OITs will continue to develop their experience as an Operator by applying the knowledge, skills and abilities gained through the AEC and PEC training.

At the beginning of the OITs training on a process/subject area, each OIT will be given a comprehensive site specific Facility Unit Process and Key Equipment Listing that he/she will be trained and tested on.

The comprehensive list will constitute a standardized training guide that will be used to train all OITs who enter the program. Use of the standardized training guide will insure that all OITs are trained in a consistent manner.

Training under the Academic Education Component (AEC)

The AEC will consist of self-study by the OIT. Each OIT is expected to spend a minimum of 10 hours per week completing correspondence course materials published by California State University Sacramento Office of Water Programs or an approved alternative educational program. The objective is to allow the OITs to learn in a self-paced environment, educating themselves on the theory of operation for each process/subject area. OITs have the benefit of real-time discussion and interaction with their Training Operators to ensure subject comprehension. Materials covered in the AEC lays the foundation for objectives covered in the PEC.

Training under the Practical Experience Component (PEC)

The PEC shall consist of field based on the job training under the guidance of a SWRCB Certified Wastewater/Water Treatment Plant Operator. The objective is to teach the OIT the specific job skills and knowledge needed to control the treatment process and operate the equipment in each of the process/subject areas while relating field experience to the process and equipment theory covered in the coursework that the OIT is completing within the AEC.

Evaluation of OIT Training Progress

In order to complete the training in any of the process/subject areas each OIT will be required to demonstrate his/her understanding of the subject matter and the ability to operate that area in a safe, permit-compliant, and professional manner. Subject mastery and competence to operate in each area will be demonstrated through the following methods of evaluation.

- 1) OITs will complete a verbal question and answer exam conducted by a Training Operator. The questions will be designed to ascertain the OIT's understanding of the process/subject matter and equipment in the area on which he/she is being tested. The results of the exam will be documented by the Training Operator who administers the test.
- 2) OITs will complete a Practical Performance Exam during which the OIT will be required to operate the equipment in the area on which he/she is being tested or perform field laboratory procedures when being tested on that subject. The practical performance exam will be administered by a Training Operator. The results of the exam will be documented by the Training Operator who administers the test.
- 3) Written evaluation of the OITs work will be performed by the Operations Supervisor in the areas including, but not limited to, job knowledge, planning/organizing, quality of work, quantity of work, dependability, initiative, interpersonal relations, communication, and safety.

The goal of these evaluations is to document and confirm that each OIT is being provided with thorough, effective training that will ensure he/she is successful. The written evaluations will be provided by the Operations Supervisor after completion of every 500 intern/volunteer hours.

- 4) Upon completion of each process/subject area, the OIT will be responsible for scheduling a field demonstration of knowledge, skills and abilities with the Operations Supervisor and Training Operator. The field demonstration will be used to gauge the progress of the OIT 's training and determine comprehension of each process/subject area. During the field demonstrations, the OIT shall be familiar with and able to explain the basis of design, the operational intent, and performance expectations for each treatment unit process. The OIT shall have the knowledge to describe the process's operating strategy, key control variables, process control parameters, Key Performance Indicators (KPIs), and remedial responses to KPI deviation. OITs will also be asked to identify all compliance monitoring locations, sample type, and purpose of sampling. OITs will also need to describe how each unit process interrelates with upstream and downstream unit processes.
- 5) It is the OIT's responsibility to ensure that they have gained adequate breadth and depth of knowledge and experience prior to scheduling the field demonstration of knowledge, skills and abilities with the Chief Plant Operator for approval to advance to the next process/subject area.

Program Completion

Intern/Volunteer OIT's are considered having successfully completed the program once they complete 1,800 hours of qualifying time. Intern/Volunteer OIT's will not be permitted to continue in the program once they have completed 1,800 hours, obtained a Grade I or higher Wastewater Treatment Plant Operator Certification and/or a Water Treatment/Distribution Operator T3 or D3 Certification.