



## MISSION-CRITICAL PROFILE

**Name:** Joel Larson

**Organization:** Zone 7 Water Agency

### Job Category (Check one below):

- |  |  |
|--|--|
| <input type="checkbox"/> Water Treatment         | <input checked="" type="checkbox"/> Electronic Maintenance Technician/ Instrument Technician |
| <input type="checkbox"/> Water Distribution      | <input type="checkbox"/> Electrician/Electrical Line Worker                                  |
| <input type="checkbox"/> Wastewater Treatment    | <input type="checkbox"/> Machinist/Mechanic  |
| <input type="checkbox"/> Wastewater Distribution | <input type="checkbox"/> Other   |

1. Please describe the work you do:

I install, repair, troubleshoot and calibrate the various instrumentation used in the water treatment process, such as chlorine residual analyzers, PH and conductivity probes, pressure/flow meters, and control valves. I also work closely with our SCADA (Supervisory Control And Data Acquisition) system and PLC's, (Programmable Logic Controllers) by troubleshooting and editing the control logic and HMI screens.

2. What combination of education, vocational training, apprenticeship, experience, and/or skill did you obtain in order to be qualified and selected for your job?

I completed the Instrumentation and Industrial Automation course at Perry Technical Institute in Yakima, Washington, a two year program dedicated to the wide scope of skills needed in the instrumentation/ automation field. I also had three years of experience in the field as a technician working in the steel industry. An understanding of math and physics and having some basic mechanical skills also greatly aid in being qualified to work in this field.

3. What do you like best about your job?

The best part about my job is that it is very interesting and rewarding. I get to have the opportunity to work on many different models and styles of instrumentation, all with varied theories of operation. I also get experience with some pretty advanced technologies with our broadband radios and network equipment, as well as our SCADA software, all while serving the public in doing my part in the water process.

4. Please tell us about the projects and activities you have enjoyed most in your work in the wastewater industry, and what made them rewarding.

I have gotten the opportunities to work on many equipment and process upgrades while employed here, one being a sodium hypochlorite/ammonia storage and injection upgrade project at one of our treatment plants. I was able to participate in all aspects of the project, from design, installation, testing and implementation of the equipment and control software. It is very rewarding seeing a project through the whole process and watching it perform correctly day to day.

5. What qualities and capabilities are needed in order for a person in your area of expertise to be successful in the water/wastewater industry?

I believe it is important to learn as much as possible about the water process, from the physical aspects to the physics and chemistry of the treatment process itself. I also believe it is important to have good people skills for working with the operations and engineering staff, as well as the public.

6. Do you have any advice for an individual who is considering pursuing a career in your field in the water/wastewater industry?

My advice would be to learn as much about the water treatment, distribution, and storage process as possible, as well as keeping up with the technological advances in the field. The water industry has proven to be a rewarding and satisfying industry for myself.