



## MISSION-CRITICAL PROFILE

**Name:** Danny Humrich

**Organization:** San Francisco Public Utilities Commission – San Francisco Water Department – City Distribution Division – Machine Shop

**Job Category (Check one below):**

- |  |   |
|--|---|
| <input type="checkbox"/> Water Treatment         | <input 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 checked="" type="checkbox"/> Machinist/Mechanic                            |
| <input type="checkbox"/> Wastewater Distribution | <input type="checkbox"/> Other  |

1. Please describe the work you do:

My main expertise is computerized numerical control programming. I program machines so that they can produce parts on an automated mill or lathe. An example would be a customized fixture that helps plumbers drill into pipe.

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?

In high school I loved math. After high school I injured myself doing heavy construction work. I decided to become a machinist because I like making things. I took courses and got a certificate in Machine Tool Technology at deAnza Community College. The company I had worked for when I injured myself doing construction work paid for my education. Afterwards I went to work as a machinist for the same company. I worked there for less than a year, then went to United Airlines and worked there for 17 years. I have worked for the San Francisco Public Utilities Commission for 6 years.

3. What do you like best about your job?

I have really good bosses and good co-workers. I like writing programs. It forces my brain to work hard. The day goes by very quickly for me. I also like talking to people who want to learn.

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

I love computer programming and I like working out in the streets. It's interesting to be in San Francisco and see different kinds of people and see what is dug up when we do construction in the streets, like cobblestone from the 1800's.

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?

You have to understand maintenance math-- angles, geometry, and trigonometry. You have to have manual dexterity and mechanical ability. We deal in thousandths; the work is very precise. You have to be proficient with tools and be able to use your hands. You have to like this kind of work.

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

Once you get to school, it's only a small percentage of what you end up learning. You want to go to a shop that has a lot of versatility so that you can learn different tasks, with people who are willing to share what they know. You need to get into an accredited training program. Right now I could take a blueprint and go anywhere in the world to do this work using a mill or a lathe.