

MISSION-CRITICAL PROFILE QUESTIONNAIRE

Name: Donald Samuel

Organization: City of San Jose – Environmental Services
Department, San Jose/Santa Clara Water Pollution Control Plan



Job Category (Check one below):

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|--|--|
| <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:

The work that I do involves calibration checks and the maintenance of instruments that are vital to the wastewater treatment process. If an instrument or its control is malfunctioning, I repair or recalibrate the device. This makes sure that our process can continue to function correctly. I am also involved in updating the technology behind automated process technology. Our team makes sure that current technology is introduced to replace legacy equipment.

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 received an education in Electrical & Instrumentation Technology at Los Medanos College, which is a local community college. Their structured program helps develop a strong understanding in concepts vital to working in this field. My knowledge continues to expand in this diverse environment of wastewater treatment. My prior experience as a plant manager in a processing facility helps me to understand that this is a group effort to keep this plant operating correctly. Each of us has an important function and we are all dependent on each other.

3. What do you like best about your job?

The organized group of technicians and administrators in our instrumentation department keep the atmosphere interesting and educational. This is a group with a variety of interests and backgrounds. We have years of knowledge and expertise in the field. I also like that we collaborate easily on projects. Our supportive supervisor trusts us in completing our tasks and supplies us with resources to improve our facility. I like that there are always goals and objectives that have been planned and thought through.

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.

Two different areas of work come to mind. One area is the capital improvement projects. CIP projects bring the plant up to modern standards. Installing magnetic flow meters or writing logic for our controllers is interesting.

Another area that is interesting is solving technical problems in control systems. We ask questions and find answers for concerns such as: Is this system calibrated correctly? Is this the correct application of equipment to facilitate the process? Are the Plant Operators satisfied with the information gained by our instruments?

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?

The individual should understand all of the basic technical concepts of a wastewater treatment system to be successful. The field is always progressing in terms of technology. Today, individuals in the field are not just doing calibration checks. They are expected to understand the process behind a system and assess the situation based on their knowledge before taking an action. Any experience or background with engines, laboratory equipment, or automated control systems, is also great because that knowledge and experience is suitable in the wastewater industry. The ability to work in a team environment is an important quality to have. I recommend that you bring in the expertise that you have and share it to help solve the variety of tasks that the team accomplishes.

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

I have several words of advice to the individuals who are considering pursuing a career in the wastewater industry. First, the person needs to research more about the field. He or she should know the pros and cons of working in the wastewater industry. If the individual should like it, then go for it. Second, the person needs to gain a wide background in math and science because the field is technically driven. Third, one should know the repercussions of his task and actions in the field. Working in an industry like wastewater treatment is a huge responsibility because the industry affects millions of residents living in the area. Lastly, be goal driven. Think of it as a career, not just a job.