

# Tanya Siwatch

## Process Engineer

### **Why did you join Air Products?**

I had been working for another company that was being acquired and was looking for another job. Having worked in a chemical company that provided engineering services, I was looking for a role where I could also get some field exposure in an operating plant. Air Products owns and operates its plants, so it's not just working on the engineering phase; it's also getting to commission a plant, test equipment and get feedback to enable continuous improvement. Plus, the interview process was amazing! It was such an open culture that supports learning and development on the job. I felt so relaxed.

### **Why do you love working at Air Products?**

Coming to the northeast was a huge culture shock. But I like the people and diversity, and it made it so easy for me to blend in. Most of my learning was on the job; I can call anyone for help. In my initial years, I didn't even realize I was on a steep learning process – I was always given challenging assignments to grow and develop. Each day is different, I am empowered to make decisions, and I feel that I am contributing to the company's bottom line. Recognition and reward is also better than what I had previously experienced. Upper management values my development.

### **What is it that keeps you working at Air Products?**

I have the opportunity to work in any area of engineering. That's motivating. It makes me feel like I'll never stagnate.

### **Please describe your career at Air Products to date.**

I started as a process engineer and never left. I support business teams to win new projects, lead and execute projects for our [HyCO plants \(steam methane reformer technology\)](#), and provide support to the sales and product development teams. I do a lot of engineering calculations to design equipment and optimize performance of the plant to ensure we comply with safety and environmental regulations. I also do field work, supporting plants under active construction, troubleshooting existing plants, loading catalyst in reactors and debottlenecking. I am also a team lead and supervise young engineers by coaching them and managing their work. I enjoy this role tremendously, as I continue to use my technical skills, coordinate resources, provide coaching to grow the team and lead projects to get work done.

### **How does what you do contribute to sustainability?**

As a part of winning any business, I, along with other team members, ensure we have the best plant efficiency. We make sure we use the lowest amount of raw material (natural gas or other

refinery gas, water) to make the most amount of product (hydrogen and syngas).

During plant commissioning as well as when the plant is started up, I am involved in field activities like catalyst loading and data collection. We measure and analyze field data using regression models to evaluate performance against target and provide recommendations for operational debottlenecking and continuously improving plant production. I am involved in supporting the environmental permit for each project.

Every project I work on includes a dedicated hazard and operability review to ensure we have appropriate safeguards for any upset in the field. When we are in the field, we conduct safety audits for all jobs – and every employee has the authority to stop a task if it is deemed unsafe.

Finally, an inclusive culture is a part of every project. Project teams encompass different functions and groups from a variety of geographies. We interact with each other to innovate, share ideas, and successfully build and safely startup a plant.

**Tell me about the most intriguing/satisfying thing(s) you've since you've been at Air Products.**

I've been the lead process engineer for the two largest-ever Air Products HyCO plants: Norco (largest based on capacity of 155 MMSCFD H<sub>2</sub>) and Fort Saskatchewan (largest based on reformer tube count with 153 MMSCFD capacity). It is amazing to go from a concept to a real plant and work with a team of highly skilled people who strive for Air Products to be the safest and most profitable company. After the challenges and long hours of a start-up, it gives immense satisfaction to say, "Wow! We just started up the largest-ever HyCO plant for Air Products."

When I joined HyCO, I was told that we don't ever duplicate plants—each of our plants is customized to the requirements of our customer with unique feed types, steam production and product purity, just to name a few. However, within the first two years at Air Products, I was challenged as a process engineer to design a flowsheet that would meet the requirements of two customers: one in US Gulf Coast, and another in Europe. Not only did this challenge lead our bid team to be creative and question the status quo, we had to come up with a unique duplication strategy to meet the different requirements from these two customers. This helped me to be open minded and never take the status quo as the end state.

**What career advice would you give to those just starting out in their engineering careers?**

Switch it up. Try many different roles and groups. You need to figure out what you like the most. Doing different jobs early in your career will broaden your thinking. Persistence. Don't give up too soon. Never take no for an answer. Ask for help instead of giving up. Always ask questions if you don't understand. No question is silly, and curiosity is a good thing. Develop confidence. Question the status quo. Be proactive; get out of your comfort zone and take risks. Take challenging assignments.