

A Run Plant Engineer



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What are your daily responsibilities?

My daily responsibilities include; monitoring the quality of materials our facility produces, ensuring the equipment is operating correctly, interfacing with the maintenance organization to ensure the maintenance needs are met, working with the business and planning organizations to ensure we are meeting the production needs of our customers and introducing new products for the business.

What part of this job do you find most satisfying? Most challenging?

One aspect of my job that I find most satisfying is the ability to work with a number of different people from a variety of organizations and backgrounds. Another aspect I enjoy is fixing problems. In a manufacturing facility, there are always plenty of problems to solve. In some cases though, finding the true root cause of the problem is very difficult. As such, dealing with on-going mechanical or even quality related problems can be very challenging at times.

What type of problems are you faced with?

Some of the biggest problems are related to quality issues. Since I work in a manufacturing facility that produces a large variety of products, dealing with quality issues is a daily activity. Other problems include dealing with resource issues within our site's maintenance organization. With a reduced workforce in the maintenance organization, maintenance issues must be prioritized on a daily basis. In some cases, production schedules must be adjusted and customer orders delayed in order to compensate for maintenance related issues.

What are your company's expectations of someone in your position?

In general, the company expects me to ensure that the production facility meets the needs of customers and our business by producing materials in a safe and efficient manner. No matter how much material we produce and no matter how good the quality is, if we can't do it safely

(i.e. no injuries or process safety events) and in an environmentally friendly manner) i.e. no spills or unplanned emissions to the environment) we'll eventually be out of business.

What skills, education, and experience are required?

For the most part, as an engineer, you are required to have a college degree in one of the engineering disciplines. Since DOW is a chemical company, most run plant engineers in a manufacturing facility have a chemical engineering degree. There are always exceptions to the rule (i.e. mechanical engineers), but having a chemical engineer in this position is pretty typical. This job is generally reserved for folks who are relatively fresh out of school, but it is not uncommon for more senior engineers to fill this job role as well. Overall, some form of manufacturing or process control experience is typically desired, but not necessarily required.

What portion of your job involves interacting with others, such as co-workers?

Since I am responsible for the performance of the facility both from an equipment performance standpoint and from a production standpoint, my job required me to interact with other co-workers. When equipment failures occur, I work closely with the maintenance organization to ensure that we are able to get the equipment fixed so that we can meet the customer orders. When quality issues arise, I work closely with the analytical organization to verify the issue and determine the cause behind it. When opportunities arise to improve the facility, I work with our improvement organization (TICA) to understand the potential opportunity and to identify options for making the improvement. Based upon the nature of the job, it is nearly impossible to make it through a day without interacting with co-workers (operators, other engineers, maintenance, etc).

What are the opportunities for advancement in this field?

In Dow there are literally endless opportunities to not only advance within an engineering role but to also change job roles and work in a completely different area. For example, if I had the desire to change jobs I could potentially work in sales, marketing, logistics, or even quality assurance. DOW likes their employees to broaden their knowledge base so folks are typically encouraged to work in a variety of areas to become more well rounded. Depending upon a person's desire and dedication, there is really no limit to how far a person could advance. Natural ability also plays a big part in it, but it's really up to each employee as to how far they would like to advance.

What are the possible salary ranges and benefits?

A beginning engineer may start with an annual salary of \$50-\$55,000. Depending upon how far that an engineer advances (department or even business leader), the salary could easily climb well above \$100,000 (I'm not sure what the upper end of salary range would be but it wouldn't surprise me if it made it as high as \$250,000/yr). In terms of health and retirement benefits, I believe the same benefits are available to all employees. From a financial standpoint though, folks who are more advanced in the company have the opportunity to earn larger performance awards each year than folks who are less advanced in their careers.

What are your work hours?

Typically 7:15/7:30 am to 5:30/6:00 pm and on call 24/7.

What advice would you have for someone interested in entering this field?

The U. S. market for chemical engineers is really starting to dry-up, unless you're willing to work on the Gulf Coast. Most chemical corporations are looking to expand overseas (China, Asia, and the Middle East) as opposed to the United States. This is due to cheaper raw material costs and the presence of fast growing markets. If you're looking for a career where there is plenty of opportunities to live and work anywhere in the U.S., I would suggest you seriously look into a different career. However, if working on the Gulf Coast or even overseas appeals to you, then chemical engineering would probably be a good career.

Interviewed by Bryan Roberts for a College 101 assignment on 5/05.