

Earth Day 2012



Career Profile

Name: James A. Beach, P.E.
Job Title: Air Quality Engineer
Location: Southeast Regional Office
Years with DEP: 11

What kinds of activities do you perform on a daily basis?

I conduct permit application reviews which include verification of information in application, literature reviews for background information on projects, and engineering evaluation. I am also a technical writer which means that I write findings in technical review memos, and write conditions in plan approvals and permits for companies to follow to demonstrate compliance with air quality regulations. I also do calculations for NSR applicability and modeling of emissions from sources.

What kind of educational background do you have?

I have a bachelor's and master's degree in chemical engineering.

What is the most challenging part of your job?

The most challenging part of my job is also the most interesting part of my job, which is the variety of different sources that are permitted from rock crushing operations to chemical plants to tissue manufacturers. Because of this, I know a little bit about many different industries; I do not think the same would apply in many industry jobs. My educational background does not cover all these industries, so there are opportunities to learn many things on a daily basis. Another challenging aspect is the negotiations that take place in the permitting of sources, since there has to be a balance between what DEP needs a company to do to demonstrate compliance and what the company can actually do to demonstrate compliance. This takes some negotiation and compromise with all parties involved. I must have the ability to listen, but also be firm so that the end result is one that protects the environment and can be accomplished with the company's resources.

What got you interested in working in an environmental field?

There are many things in my life that may have led me to an environmental field. My love of science and math began with a love of biology when I was very young. I also had a family member that was affected by the environment in which he worked. I have a strong desire to help people. While this was not the only field I was considering, I felt that working in a job that involved the environment would be the best fit for my interests and give me the opportunity to do some good with my education.

What is the most rewarding part of your job?

One of the most rewarding parts of the job is working with the people in the Air Quality Division. Everyone seems dedicated to protecting the environment, and I get great insight and feedback from my co-workers when preparing permits and plan approvals. I believe that I have grown more in this job by listening to this feedback and understanding their concerns, and I believe that my work has only improved because of the dedication of my co-workers.

What advice do you have for someone thinking about a career in environmental science?

Always keep an open mind because the solution to a problem may come from outside your realm of expertise. Also, listen to others around you because they may have insight on something that was not presented to you. Think critically and understand what is presented to you; only then can you find the truth.