



## Profiles of Physicists



**Sergio A. Valdes**

**Reactor Coolant System Engineer  
Florida Power and Light**

**Education:**

B.S. -- Physics; Florida State University

**Job Description:**

Reactor Coolant System Engineer, supervising a small group of engineers that coordinate and review all plant changes and modifications.

**Comments:**

"My physics training helps me out every day as far as reviewing modifications. It involves different types of subject matter: mechanics, hydraulics, thermo-dynamics, fluid dynamics, heat transfer, electrical systems, circuitry, and control systems."

**Video Transcript 1:**

"What I do is I'm a supervisor for a small group of engineers that coordinates and reviews all plant changes and modifications. We interact with the design engineering group that prepares them and the implementing groups, the operations department that ends up operating the plant modified, and also training, and the engineers that modify the drawings to reflect the modifications. So we have our hands in just about every aspect of the modification and we see it go from womb to tomb. It's kind of exciting. The difference with the plant engineer, assistant engineer, is that you're more hands-on, you're actually looking at the piece of equipment working. You do have to verify against the design, but you get to look at nuances and things that are specific to how the thing works."

**Video Transcript 2:**

"Well, I really didn't have any idea when I was studying physics, and even after I graduated that I was going to end up in nuclear power. But I knew that with a physics career I would have a good, flexible background to allow me to go in different areas. My physics training helps me out every day as far as reviewing modifications. It involves different types of subject matter: mechanics, hydraulics, thermo-dynamics, fluid dynamics, heat transfer, electrical systems, circuitry, and control systems. I mean you name it, it's all involved in there and there's a lot that goes on -- not to mention the nuclear physics side."