

WHAT CAN PHYSICISTS DO?

An interview series that profiles scientists who opted for careers outside of academia.

Hannah Pell ensures regulatory compliance at Three Mile Island

By **Toni Feder**

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BS, physics; BA, music theory and oboe performance;
Lebanon Valley College, 2016
MA, music theory, University of Oregon, 2019

What were you looking for in a job?

I never sought out a specific role for myself. I've navigated toward questions that interest me. I was an intern with the Society of Physics Students, working in science outreach. Later, I was a research assistant at the Center for History of Physics at AIP [American Institute of Physics, publisher of *Physics Today*]. Then I was an editorial coordinator at the American Association for the Advancement of Science.

(Photo courtesy of Hannah Pell.)



How did you get into nuclear power?

My father worked at Three Mile Island in radiation protection and maintenance, and after the plant closed in 2019, I started writing about it. [See Pell's 2022 *PT* article, "Why did the Three Mile Island Unit 1 reactor close?," written with Ryan Hearty and David Allard.] That led to my being hired as a licensing engineer onto a project to complete the decommissioning of Three Mile Island Unit 2, the site of the 1979 accident. It was a unique opportunity to enter the industry. That was in 2021.

How do you spend your time?

I'm now a nuclear regulatory specialist at Crane Clean Energy Center [formerly known as Three Mile Island Unit 1; it's scheduled to restart operations next year]. My job is to understand the rules and regulations and ensure that we stay in compliance. It includes doing historical research to understand the context of the regulations. I interact with NRC [Nuclear Regulatory Commission] inspectors, with other stakeholders, and with the public when people come to tour the plant.

I've been focused on understanding Executive Order 14300, which was issued in May 2025 and directs the NRC to take steps to accelerate deployment of nuclear energy in the country.

What do you like about your job?

My favorite part is working with groups that specialize in different aspects of plant operations. I'm always learning new things.

How does your physics background come into play?

First and foremost, in understanding how the plant works. I interface with the engineering department to research requirements in support of planned modifications. My physics background helps me quickly process technical information and approach complex problem-solving with confidence.

What new skills have you needed to learn?

Soft skills, like writing and communicating. I've also had to develop strong project management skills to work in areas such as decommissioning, license renewal, and restart.

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