

## **West Point cadets waste no time studying waste-to-energy project**

U.S. Army

NATICK, Mass. (Aug. 17, 2012) -- No one wants to waste a summer, particularly U.S. Military Academy cadets, who know all about making the most of their time.

Ironically, a pair of West Pointers recently came to the Natick Soldier Research, Development and Engineering Center to take part in a project that will study how to turn waste into energy on base camps.

"We got funding through the Army's strategic environmental R&D program," said Amy Klopotoski, the Contingency Basing Science and Technology lead in the Shelter Technology, Engineering and Fabrication Directorate of NSRDEC, adding that the Army Corps of Engineers and USMA are the center's partners on the project. "It's a rotary kiln gasification technology.

"The Corps of Engineers is looking at larger facilities, larger base camps, where here at Natick, we're looking at base camps that you can pack up and relocate somewhere else. So we're looking at remediating waste on the base camps and then generating some energy off of that waste."

Engineering majors Richard Garcia and Michael Richardson came from West Point to Natick to work on the start of the three-year project.

"They're here for a few weeks to work at Natick, learn about what we do here, and do some research on base camp waste and base camp technical challenges," Klopotoski said. "Our goal is also to get them some exposure to see the technology work that is going on within the Army and how that process works and just get them more knowledgeable about who we are and what we do."

Garcia, a senior mechanical engineering major, has been trying to absorb as much as possible in the short amount of time he has at Natick.

"The last three days, I've been learning as much as I can about diesel," Garcia said. "This has been kind of a learning process for me."

While Garcia focused on the generator, Richardson, a junior chemical engineering major, looked at converting base camp waste into the synthetic fuel that would power it.

"Over the next couple of years, West Point's going to be collaborating on this project, so we're kind of the first cadets to dig into it and see what it's all about," Richardson said. "I have two more years at West Point, so, hopefully, I can really do some serious work on this in the next two years."

## **West Point cadets waste no time studying waste-to-energy project**

Published on Electronic Component News (<http://www.ecnmag.com>)

---

According to Klopotoski, the cadets wasted no time getting to work.

"They started diving right into the base camp problems," Klopotoski said. "They're also looking into water demand reduction -- some technologies that could make things like showers, latrines, laundry more efficient in terms of their water usage."

As part of the project, the cadets were scheduled to spend time at the Army's Base Camp Integration Laboratory, or BCIL, at nearby Fort Devens, Mass. The BCIL tests new base camp technologies.

"It's kind of nice to get some fresh eyes on some of our projects," Klopotoski said. "These guys are looking at how to tackle some of those technical challenges. In the end, we're going to have to package it into a containerized type of system that's small enough to move around. I think that's going to be a part of the technical challenge, also."

Klopotoski said she hopes to have a demonstration waste-to-energy model operating at the BCIL or elsewhere by the end of the three-year project.

"But fully ready to field, it might be five years," Klopotoski added.

Meanwhile, Garcia and Richardson already will have shared at West Point what they learned at and about Natick.

"A lot of people have no idea that there are large groups of civilians and military working together to make Soldiers' lives better," Richardson said. "Part of this experience is going back to West Point and saying, 'Hey, man, there are people actively working on this. I promise.'"

**Source URL (retrieved on 04/20/2014 - 2:50am):**

<http://www.ecnmag.com/news/2012/08/west-point-cadets-waste-no-time-studying-waste-energy-project>