

# Sasebo Finds Sustainable Use for Food Waste

## New Processes at Remote Installation Help Meet Navy Solid Waste Diversion Goals

**NAVAL FACILITIES ENGINEERING** Command Far East Environmental Division installed two food waste dehydration machines at Command Fleet Activities Sasebo (CFAS) this year in an effort to increase their solid waste diversion.

Personnel from the Public Works Department (PWD) Sasebo, Steve Edlavitch and John Freeman, observed that discarded food accounted for 11 percent of the waste that was landfilled or incinerated. Because of the installation's remote location, food shipped from the U.S. has a short shelf-life.

When the Environmental Division at PWD Sasebo met last year to decide how to meet or exceed U.S. Navy goals for solid waste diversion, solid food waste was a prime target.

"We have a very successful Qualified Recycling Program here, and robust prefectural laws in Japan ensure that base waste is segregated into specific recyclable commodities," said Edlavitch. "But still, our solid waste diversion rate has hovered near 50 percent. CFAS leadership wanted to ensure that we are setting an appropriate benchmark for our gracious hosts here in Kyushu."

"We generate about 750 tons of food waste from our commercial support operations, ship port calls, food service locations, base residents, and installation schools every year. Our challenge is to find ways to reduce, reuse, or recycle food waste to reduce our overseas environmental footprint," he said.

PWD Sasebo partnered with the Defense Commissary Agency (DeCA) to install two food waste dehydration machines, called 'Hungry Giants' (manufactured by ReSource Environmental Solutions), at two locations on the base.



ABOVE: Ben Englefied showing DeCA commissary staff to operate the Hungry Giant food waste dehydration machine.



RIGHT: The Hungry Giant food waste dehydration machine at the CFAS Hario commissary.

To ensure program success and reduce their food waste footprint, store employees would have to “buy in” and alter the way they perceived expired food—viewing it more as a reusable resource rather than refuse.

“When we trained commissary staff, there were some uncertainties about the efficacy of dehydrating/composting commissary store food,” said Freeman. “Store workers were accustomed to conventional disposal techniques like hauling food out to dumpsters and had questions about what kinds of foods could be deposited in the machine, and what would happen if nonfood items like bones or plastic wrap were placed in it.”

Now, instead of the dumpster, commissary employees load the Hungry Giants with food waste throughout the day and initiate a run cycle at the end of a work shift. Non-food items are expelled at the end of the cycle. The machines convert organic materials such as breads, meats, produce and starches into a sterile, nutrient-laden dehydrated soil amendment, reducing food waste by 80 to 95 percent. The end product is expelled into containers which are evaluated by environmental division staff.

“Initially, we’ve found that the machines can reduce our food waste burden (measured by weight) by around 80 percent. We’re still learning what kind of food mix offers



An example of the amendment that is discharged from the dehydration machine.

the maximum waste elimination,” said CFAS Commissary Officer Cory Reilly.

Based on early successes, CFAS plans to expand its food waste recycling program from the two Commissaries to other food-waste generating facilities throughout the installation. CFAS also plans to work with local Japanese companies to process the amendment and/or apply it to base landscaping areas. The amendment will potentially provide nourishment for shrubs and trees, thus completing the circle of sustainability. This planned program expansion is just part of what makes CFAS an overseas environmental leader. ♣

*Photos by John Freeman*

## For More Information

**FOR MORE INSIGHTS** into other ways to solve food waste challenges, read our article entitled “Diverting Food Waste from Landfills Saves Money & the Environment: NESDI Project Includes New Guidance Document for Navy Solid Waste Managers” in the summer 2014 issue of *Currents*. To browse the *Currents* archive, visit the magazine’s on-line home on the Department of the Navy’s Energy, Environment and Climate Change web site at <http://greenfleet.dodlive.mil/currents-magazine>.



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