
MEMORANDUM

TO: PROFESSOR JO ARCHIBALD

FROM: INDIA EICHELBAUGH-GOSS

SUBJECT: REVIEW OF RECOLOGY TRIP - SAMOA

DATE: 18 OCTOBER, 2019

Purpose: The purpose of this memorandum is to provide a review of the lecture and tour given on the morning of October 18th, 2019 at Recology, the local recycling center in Samoa that is striving towards zero-waste.

Discussion: The tour at Recology began in the unique multipurpose office-type room of the facility. A lecture provided an overview of the recycling plant's functions and various machinery, as well as many statistics and facts regarding recycling both globally and locally. Printouts were provided of both an article about the increasing rate of recycling by Jared Paben as well as a 7-page article by Stiv Wilson discussing the effects of contaminated recycling in Indonesia. While these were informative, most of the printouts were left under the chairs after the presentation, and the amount of waste could have been avoided by incorporating this element of the presentation in a different way without using so much paper. The lecture covered these topics, including the major recent change in policy between China and the United States wherein China will no longer accept the U.S.'s recycling due to high levels of plastic and other contamination (35-40% on average, when it should be 0.5% or under). However, due to a \$2 million retrofitting project at Recology in 2018, this is one of the few recycling facilities in the United States that can send its paper recycling to Indonesia and China. More fun facts were shared about Recology, like the fact that it is employee-owned and operates in California, Oregon, and Washington. Likewise, it is the fifth largest U.S. hauler and is working towards producing zero waste throughout the recycling process.

After the introductory lecture, hardhats or vests (there were limited supplies of each) were provided and the tour moved out to the adjacent room where the reception, sorting, inspection, and bundling of recycling take place. Dozens of workers were busy sorting through a conveyor line of recycling products, removing contaminated and nonrecyclable items. After the conveyor belt are screens to sort out light paper, and a glass-breaker which sifts out and sorts glass products from products made of other materials. Then it is compacted and bundled. The process is not perfect; a Styrofoam noodle cup was observed compacted within a cube of recyclable cardboard.

When the tour returned to the indoor portion of the recycling center, volunteers were allowed to sort landfillable and recyclable items categorically to see how much Engineering 115 students knew about recycling. Then, tips were shared regarding how to reduce personal waste and how to manage waste more responsibly when it is produced. For example, when recycling a plastic bag, it should be tied in a knot so that if the wind comes through, the bag will be less likely to become airborne and cause an environmental problem later on. The guide also mentioned that Recology hired a plastic engineer for five years to try to come up with a way to return plastic to its components, without success. Questions were accepted, and the recurring theme in the answers to

the audience's questions was that people are responsible for the trash that they create, and normal people can influence the way that waste is produced by making more selective and conscious choices as consumers. We were also informed of online resources which can be used to find out which items are or are not recyclable.

Conclusion: More people should visit recycling centers; this should not be an experience in which interest is limited to those in the environmental engineering field. Recycling is relevant to everyone, and the most crucial part of effective community-wide recycling practices is education. If people are educated enough about the benefits of recycling and can see how well it works when it is implemented correctly, there is incentive enough in that. There are taxes on bottles, but all that that teaches people is that recycling is money-oriented. This needs to change so that the general public can view recycling as a crucial and natural part of life, and Recology is one example of a successful establishment embracing this concept.