amc496

Andrea Castro's Individual Contribution Page

Fall 2012 Contributions

During Fall 2012 semester I was a member of the Chemical Dose Controller (CDC) team. As part of the Fall 2012 CDC team, our challenge included creating and refining a prototype of the lever arm assembly. Refer to the Chemical Dose Controller page for a copy of the team tasks, final report, and presentation.

After creating a prototype of the lever arm assembly and CDC setup, as a team we made modifications to the existing design which included: a new drop tube connection designed to reduce leakage, adding cross bracing to the lever arm assembly to reduce bending of the lever arms, adding a calibration device to enable fine-tuned adjustments, and testing the linearity of the new lever arm assembly. Finally, in order to create an aesthetically pleasing design we modified the weight design, had the lever arm assembly anodized, and had a label, scale, and logo mechanically engraved on the lever arm.

Winter 2013 Contributions

During winter break I traveled to Honduras to visit existing AguaClara plants, deliver the CDC fabricated with my team during Fall 2012, and deliver and set up a demonstration plant for a RAS-HON meeting (“Red de Agua y Saneamiento de Honduras”, or “Water and Sanitation Network of Honduras”) where Monroe gave a presentation about AguaClara. I set up the demo plant with Antonio from Agua Para el Pueblo so that the demo plant could be kept in Honduras and used in future trainings and presentations. I also translated the foam filter instructions to Spanish.

Spring 2013 Contributions

During the Spring 2013 semester I was a member of the Chemical Dose Controller (CDC) and calcium carbonate scaling teams. As part of the Spring CDC team, our challenge included making improvements to the LCDC system and creating a clear drawing of the latest LCDC design. Refer to the Chemical Dose Controller and Calcium Carbonate Scaling pages for a copy of the team tasks, final report, and presentation.