arb276

Spring 2009 Contributions

During the Spring 2009 semester I have continued to worked on the Design team. Most of the first half of the semester was spent on completing designs for Cuatro Communidades, where we provided assistance in port spacing and hopper design details. I also helped with a preliminary design for Ecuador with the help of Heather Hunter. This design is for a small plant (3L/s) that will help with education and research in Ecuador. We have continuously been in contact with Hugo regarding construction details for that plant.

The project with Ecuador has also given me the opportunity to begin writing up a Design Report that would accompany drawings sent to the on-site partner organizations. The report includes descriptions of the processes taking place within the plant, dimensions of the plant, and detailed drawings. Once the design program has been automated and put online, a general design report will be used to accompany the AutoCAD renderings. This document will not list plant-specific dimensions, but will still include the overall process descriptions and variable-naming guides on the detailed drawings. Heather Hunter has provided assistance by creating the figures in the report.

Other contributions during the semester include helping with the semester goals and updating the Design team's wiki page . Changes in the wiki page include organization and creating new pages--specifically, for plant designs. This page summarizes each plant that has been constructed, and links to individual pages that discuss the design and even construction.

Finally, I also updated the Entrance Tank algorithm documentation page since the dimensions of the Entrance Tank are now being calculated. Throughout the semester I have also been updating the Variable Naming Guide as programs were completed and I went through the Rapid Mix design to incorporate it into our file set.

Fall 2008 Contributions

During the Fall 2008 semester, I have worked on the Design team, specifically the Automated Design Process. In the beginning of the semester I spent a lot of time familiarizing myself with the design programs to try and understand all the parameters and different elements of the plant design. Further into the semester I helped with the design for the fall design projects, and have documented several MathCAD programs outlined below.

I have helped work on the design for both Gracias and Quatro Communidades, the former of which has a much larger design flow than previously used. I specifically helped create the double-width alternatives for the Gracias plant. I also helped rewrite the Master Program with Sara Schwetschenau to incorporate the new sedimentation inlet slopes program, as well as update the designs for Gracias and Cuatro Communidades incorporating these design changes.

I completed documentation for the Flow Control Module, Fluids Functions, Launder, and Sludge Drain Design programs. This includes updating the Variable Naming Guide, incorporating AutoCAD renders of the designs, and documenting the specific algorithms and their functions.

Content created by Anonymous

There are no pages at the moment.