

Spring 2013

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January 30, 2013

Anodization Issues

January 30, 2013

- Determine why the black anodized coating turned purple so that it can be prevented. Assess the durability of the anodized surface in a wet environment.

Fabricate a New Chemical Dose Controller

February 15, 2013

- Determine the cost of having the CEE shop fabricate a new prototype. Present this to Monroe along with the estimate from Hancock Precision, determine the cheaper option, and have a new unit fabricated.

Create a better manifold system that is chemical resistant

February 15, 2013

- Fabricate from PVC.

Constant Head Tank Scale-Up

February 22, 2013

- Determine a method for scaling up the constant head tank for larger flow rates that does not require such a large volume tank.
- Explore different options of having a larger orifice in the float valve, talk with Kerick Float Co., etc.

Entrance Tank Float Improvements

March 1, 2013

- Some of the floats in Honduras move around excessively because of a lack of a heavy enough counterweight and because of poor entrance tank design. Explore options that minimize movement of the float caused by influent water in the entrance tank (i.e. wider float, barrier to influent flow) .

Develop Method of Adjusting Constant Head Tank

March 8, 2013

- Develop a better method to zero the constant head tank - minor height adjustments to the lever or constant head tank are difficult and cumbersome.

Retrofits to Existing Plants

March 29, 2013

- Obtain details on existing plants that could limit the design (i.e. entrance tank wall lengths).
- Scale the lever arm, if needed (a 38" long lever arm may not fit in all the plants).
- Scale the associated dosing tubes.

Product Data Sheets

April 5, 2013

- Document how all of this is to be done in clear concise product data sheets in AutoCAD.

Build to Specifications

April 19, 2013

- Figure out if we can build the dosing tubes directly to Mathcad specifications and expect them to work, which would minimize calibration time. The main concern is the dosing tube length.
- Determine how well the system behaves as compared to MathCad output.

Production of Doser

April 26, 2013

- Determine how the doser systems should be fabricated in the future. Should it be produced and then sold by AguaClara LLC, produced locally in each country, or a combination of both?