dfg42

David Gold's Individual Contributions Page

Fall 2014: Distribution Contamination Team

Part of a team to investigate the possibility of contamination through the distribution system after water leaves the treatment plant. We determined the potential mechanisms that may cause this contamination and developed solutions for their prevention.

Spring 2015: Design Team-Sedimentation Tank Updates

Though many updates have been made to the sedimentation tank file in the last few years, each update has only focused on one specific section of the design script. This is understandable due to the complex and interrelated nature of the script, however it makes following the design logic difficult for anyone who is unfamiliar to the code. My main goal for the semester is to clean up the sedimentation tank design script to make the script clear, logical and understandable, even to those with no prior design team experience. In addition recent updates to the sedimentation tank that have been suggested by field engineers in Honduras or have been discovered by recent research will be incorporated into the design tool.

These updates include:

- Correcting the diffuser pipe positions to reflect what has been fabricated in Honduras.
- Adding small slopes at the ends of the bottom of the sed tank to prevent sludge settlement in the corners where the diffuser pipes don’t reach.
- Switching the orientation of the plate settlers so that they rest against the channels rather than extend under it.
- Changing the floc hopper drain to a new configuration designed for a constant drip rather than regular purging that disturbs the floc blanket.
- Adding four small holes along the top of the inlet manifold to allow air to escape when the tank is filled.
- Correcting the manifold diffuser lengths so that they end 3-5cm above the edge of the jet reverser.
- Moving the 2” floc viewer ports into the second section of the entrance channel to get above a deeper part of the floc hopper.