

Desktop Simulation of Activated Sludge Solids Interactions



Purpose

Clariflux® provides a visual representation of the solids interactions in the activated sludge process. Because of their complicated nature, these interactions are often poorly understood, and operational decisions tend to be made on a “trial-and-error” basis. Clariflux® eliminates this guesswork by allowing plant staff to investigate the impact of operational changes at a desktop level – before the changes are actually made to the plant operation.

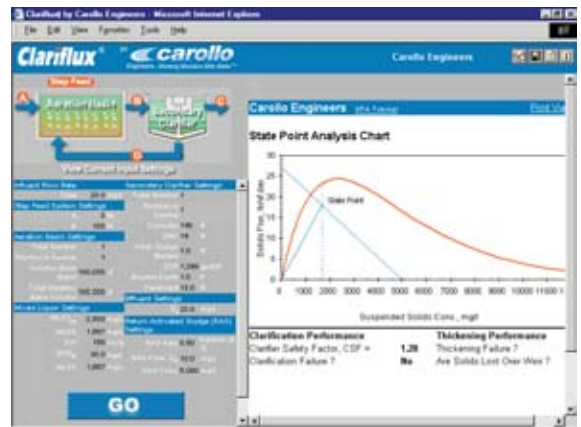
Features

- ▼ Includes customized graphical user interfaces that simulate the look of the actual treatment plant.
- ▼ “Click-and-configure” approach allows user to click aeration basins and secondary clarifiers on and off to simulate actual plant configuration.
- ▼ Model incorporates plant-specific sludge settling characteristics, and is calibrated based on historical operational data.
- ▼ Allows user to analyze impact of different operational parameters such as mixed liquor suspended solids (MLSS) concentration, sludge volume index (SVI) and return activated sludge (RAS) rate.
- ▼ Allows user to analyze secondary capacity for different configurations and to plan for different operational scenarios such as wet-weather operations.
- ▼ Allows user to investigate different solids transfer interactions between the aeration basins and secondary clarifiers (potential sludge blanket buildup during wet weather events, potential solids wash-out, reduction in MLSS concentration, etc.).

- ▼ Allows user to investigate different types of remedial action for solids inventory-related problems.
- ▼ Includes feature for summarizing inputs and results on a printable Summary Sheet – allows the user to create a handy reference library of different operational scenarios.
- ▼ Can be used as an optimization tool, a training tool or an analysis tool.
- ▼ Model access is over the Internet, thereby allowing for convenient updates as new features are added.

Application

The user selects the desired operating configuration by clicking on the aeration basin and secondary clarifier icons, and inputting the desired operational parameters. Clariflux® incorporates these selections and displays the resulting set of operating conditions in the aeration basins and secondary clarifiers. In the event these predicted conditions are not acceptable, the user can explore different remedial actions by clicking on different operational icons.



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