



In the Stream

BP Chemical – Decatur, AL

BP Chemical produces a precursor used in the manufacture of food grade plastics at multiple plants worldwide. Small particles from this process are picked up in the wastewater stream. They desired to remove these particles as a part of their wastewater cleanup and because these particles once recovered can be recycled back into their process.

The BP was conducting pilot work with the competition's Solids Contact Clarified at their Decatur, AL plant. After a considerable period of time, the tests were not producing the desired results. BP then contacted ClearStream to inquire about our design for Solids Contact Clarifiers. ClearStream requested a sample of the wastewater prior to any determination of the type of equipment required. The client sent the sample to ClearStream's laboratory for evaluation.

It was determined during lab testing that the Solids Contact unit, which recycles sludge at a high internal rate, was in fact responsible for the shearing of the floc into small particles which did not settle well and were carried over into the effluent. This testing further showed that the process would benefit from a sludge blanket type design. This design would trap small particles without the shearing effect and therefore produced the type of effluent BP required.

In light of the test data, the client determined to buy a Sludge Blanket type thickener from ClearStream. An additional characteristic of the application was the sludge became very thick at times. Therefore, it was necessary to provide a lift on the rake arms to accommodate this condition.



26' Dia 316 ss Custom Shaft Drive with Lift & Elevated 316 ss Covered Tank (With Erection)



3 D SolidsWorks™ Drawing

However, the application also required the use of skimmers and it was not desirable to have the skimmers raise along with the rake arms. ClearStream engineered a design which allows the rake arms to lift while leaving the skimmer arms in place. Finally, since the sludge had a tendency set up in the discharge line, a sludge recycle loop was designed into the system to keep sludge moving.

ClearStream's the ability to provide lab testing, develop a special design, and recognize other requirements of this application, produced a solution which was successful for the client. In fact, it was so successful that, after the startup of the first unit, the client proceeded to purchase a total of six additional units for their other plants worldwide.

To see how ClearStream's wide range of capabilities can benefit your project, contact your local Clear Stream Representative.

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Suction Pipe Clarifiers

Solids Contact Clarifiers

RapidStream™ - High-rate Solids Contact
Clarifier/Thickeners

Rim Drive Clarifiers

Thickeners

DAF Units

Circular

Rectangular

CPI Type Oil/Water Separators

Rectangular

Packaged

API Type Oil/Water Separators

Rectangular

Circular

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Custom

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Buoyant Truss Steel Covers

Gasholder Truss Steel Covers

Radial Beam Fixed Steel Covers

Radial Beam Gasholder Steel Covers

Dual Membrane Gasholder Covers
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