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Dewatering Containers

Ms. Therese Wheaton
www.crystalenv.com
"Specializing in Industrial and Municipal Solids-Liquid Separation"


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The Regulators are Our Friends!

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**CONTAINERIZED DEWATERING
SLUDGE BOXES**



Chemically Treated Septic & Grease

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**CONTAINERIZED DEWATERING
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You Should Be Safe Opening Gate...

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...If the Material is Firm in the Truck

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CONTAINERIZED DEWATERING



"Firm in the Truck Waste" is a "Solid Waste"

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Optimizing Chemistry is Important !




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Grease Trap Separation & Optimization



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**Conditioning & Pumping
What Change Should We Expect?**



Making "Clean" Water

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Really Cool Septic Separation:



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Chemical Addition & Optimization



Fit the Chemistry to the Process

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Chemically Treated Grease Trap

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Chemically Treated Septic

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In-The-Round Dewatering



Similar, But Different...

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The Plan...Where will the Water & Solids Go?

- *Secure Relationship with Regulators*
- *Determine Water Quality Requirements*
- *City Ordinance has the "Rules"*
- *Landfill vs. Beneficial Reuse of Solids*
- *We Can Provide you with a "Gameplan".*

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FREE CLUES



5-12% Becomes Solids
88-95% Becomes Liquid
Only 2-3% Can Become Fuel

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Solids Quality; Disposal or Beneficial Re-Use



Different Chemistry = Different Results

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5-12% is Solid Waste



Landfill or Beneficial Reuse *Good Question!*

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Industrial Pre-Treatment or Irrigation



88-95% of Trucked Volume is Cleaner Water

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What Pumpers Need to Know:



The Regulators Are Our Friends!
Local, State & Federal Rules

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Can we do it better?



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DEWATERING CONTAINERS FOR WATER POLISHING

- Some Operations Must Get Dry Solids
- Disposal Fees Sometimes Dictate Costs
- Water Quality Standards are HIGH (low values)
- Facilities Compromise Solids for Water Quality
- **Facilities Compromise Water Quality for Solids**
- TS in Water Must be in 100-300 ppm
- Final Clarifiers are Costly




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Screw Press...Dryer Solids




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Belt Filter Press...Dryer Solids



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Rotary Press...Dryer Solids




This image shows a large industrial rotary press machine. It has a prominent blue frame and a large, circular, light-colored drum. The machine is situated in an industrial setting with other equipment visible in the background.

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Centrifuges...Dryer Solids



This image shows a horizontal industrial centrifuge. It features a long, cylindrical body with a blue motor at one end. The machine is supported by four legs and is set against a plain background.

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TS in Water Often Exceeds Discharge Permit



This image shows a white pipe discharging water into a tank. The water is heavily aerated, creating a thick layer of white foam on the surface. The tank's interior is visible, showing the water level and the foam.

There is an Easy Way to Polish

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WATER POLISHING



This image shows a large, black industrial tank. A red ladder is leaning against the side of the tank. The tank is situated in an industrial facility with other equipment and pipes visible in the background.

FINAL INSTALLATION...TSS CLARIFICATION

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CAPTURE TOTAL SUSPENDED SOLIDS



This image shows a large rectangular tank with a metal grate across the top. The tank is filled with a thick, brown sludge, which is being captured by the grate. The sludge is piled up in the center of the tank.

Filtrate is Inside the Container

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This image shows a complex network of white pipes and valves. A large container is visible in the background. The pipes are connected to various pieces of equipment, and the system is used for re-circulating dirty filtrate.

Dirty Filtrate in the Container
Is Re-circulated


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Clean Effluent is Discharged to Sewer Plant

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**LAD PROCESSING;
PUMPER ARTICLE JUNE, 2010**



Effluent out of Dewatering Container

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Chicken Slaughterhouse Optimization:



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Chemical Separation of Septic Solids & Water



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Chemically Treated Septic

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Chemically Treated Septic & Grease

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CONTAINERIZED DEWATERING



- Water Quality
- Requires no rinse water in process
- LOW Maintenance
- Filtrate meets industrial pre-treatment
- Financially Attractive for 1-5 Million Gallons / Year

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MODULATE FOR GROWTH

RECEIVING/DE-GRIT + SCREENING + EQUALIZATION + DEWATER + ODOR CONTROL



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QUESTIONS?



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