PFAS
poly- and perfluoroalkyl substances
Full Service Organics Management

- Over **15 years** of experience in this industry
- Started out at a large corporate company and worked there for 10 years
- Decided to take a leap of faith and start my own company: **FSO Management**
  - We have been successful serving different municipalities throughout Wisconsin, Upper Michigan, Minnesota, and Illinois for over 5 years
  - My company consists of myself and 5 employees that travel with the company and 2 others that keep the company running near our home base.
  - We clean digesters, water basins, holding tanks, lagoons in both industrial and commercial environments.
  - With experience and expertise in cleaning and land application services for an all-in-one sludge removal, from clean outs to transport and recycling, we can provide the highest standards of safety, compliance, and communication.

Rich Ellman
President
Full Service Organics Management LLC.
Liquid material goes from holding tank, to mix tank, then a mobile belt press which made 18-22% cake solids, finally to roll off boxes.
- From roll off boxes it was loaded up on flat bed trailer
- 9 loads/day roughly were hauled to south Chicago
- Loaded onto a train
- Hauled to Oregon to a closed loop landfill

Loading onto train in Chicago and hauled to OR
For the cake with this amount of PFAS in it, we only had a few options for the disposal after checking with every local landfill or other municipalities.

- There were a few options across North America - one being in Canada

Clean Harbors
Lambton (Sarnia) Landfill Facility
4090 Telfer Road, Rural Route #1
Corunna ON N0N 1G0
Canada
Phone: (519) 864-1021

Waste Management
Chemical Waste Management, Inc.
Arlington Facility
17629 Cedar Springs Lane
Arlington, OR 97812
Phone: (800) 963-4776
Waste Management has an intermodal rail facility in Chicago
Rail transport to the Oregon facility would be by Waste Mgmt.
Use of 20-yd roll-off containers

Clean Harbors El Dorado, LLC
El Dorado, Arkansas Incineration Facility
309 American Circle
El Dorado, AR 71730
Phone: (870) 863-7173
The Filtrate Process

From belt press to weir tank (to catch any bigger amounts of solids)

From weir to sand filter

Then to bag filter,

Finally, to carbon filter
Sand filters for filtrate

- Pictured is a two pod sand filter but would recommend a 3 pod sand filter going forward
Bag filters for filtrate
Carbon filters for filtrate
The holding tank was pumped to the bottom, washed with a fire hose and a squeegee broom was used until there were absolutely no solids left in the holding tank.
Full Service Organics Management

Rich Ellman
President
Full Service Organics Management LLC.
C: 920-373-6704
Email: rellman@fsomanagement.com
www.fsomanagement.com