A JOURNEY BEGINS WITH ONE STEP

Circa 1992

The Permitting Process

- In 1992, MEI began its journey toward a waste treatment facility by filing for our first industrial discharge permit.

- 1994 Local discharge permit received. Valid for 5 years.

The Permitting Process


- These were our first steps on the journey to waste treatment.

The Permitting Process

- Industrial Discharge Permit allows us to discharge up to 80,000 gallons/day.

- Original idea was to process primarily septic/sewage waste from the available 400+ million gallons.

- PENNVEST helped fund the facility.
Next Step: SITE PREPARATION

1998-Excavated 480,000 cubic yards of dirt to make way for treatment facility construction.

Circa 1998

Earthmoving

Earthmoving

Earthmoving

Earthmoving

Construction

- October 1999-Building construction begins.

Construction
Secondary Containment

Structure

Taking Shape

New Toys

NEXT STEP:
OPEN FOR BUSINESS
Circa 2001

We’re Open! - Almost

• Winter 2000, building construction complete.
We’re Open! - Almost

- Accepting waste is put on hold as we await our DEP Solid Waste Permit.

First Load

- Jan. 2001-Industrial Discharge permit renewed.
- Feb. 2001-DEP Solid Waste Permit received.
- The first load is received into the facility.

Got Waste?

- MEI now accepts septic waste, grease trap waste, solids, liquids, semi-solids and oil & water mixes.
- The PA DEP categorizes these as municipal and residual wastes.

Liquid Waste Unloading Area

Treatment Tanks

Elevated Plate & Frame Filter Press
SEEING A NEED
Circa 2002

NEXT STEP:

- 2002-MEI answered a community need by modifying our DEP Solid Waste Permit to open a transfer station.
- 2002- Construction on the Transfer Station (Discard Depot) begins.
- The Discard Depot accepts: C&D, Scrap metals, & wood.
Transfer Station

- Remember, it is a journey, not a destination.
- Additional permits for DEP Tire Handler & EPA E-Scrap allow us to accept these waste streams.
- 2003-Discard Depot opens to the public.

Discard Depot

Door 19 Chute       Door 20
Walking Floor Trailer Staging Area

NEXT STEP:

RAD PLAN

Circa 2003

RAD Plan

- 2003-Radiation Plan created, adopted and regulated.
- MEI installs radiation meter at facility scale to ensure no loads entering facility contain dangerous radiation levels.
- ALL LOADS entering our facility pass by the radiation detectors.
Next Step: EPA Rules

Circa 2005

The EPA Rules

- 2005- Our 3rd Industrial Discharge Permit is received.
- EPA promulgates regulations categorizing our facility as a “CWT” Centralized Waste Treatment facility.

The EPA Rules

- 4methylphenol is prevalent in septic tank & sewage sludge. To be in compliance as a “CWT,” we must remove it.
- Additional neutralization, metals clarification and organic removal is added to our treatment process, a project costing $100,000+.

2005 Continued

- A 24 hour flow proportionate composite sampler was added to ensure we remain in EPA compliance.
- Rain is our friend. Leachate water becomes our new waste stream.
- The journey continues…

Next step: Solidification Changes

Circa 2005

Additional Materials

- 2005- minor permit modification to use solidification agents other than cement kiln dust.
- Our waste streams for solidification had changed, and we needed to adapt.
New Materials

- Modified our permit to use other forms of solidification agents such as: virgin powder products from commercial or industry sources, and our own by-products (MEI filtercake).

NEXT STEP:

24/7 OPERATION

Circa 2006

24/7/365

- 2006-Hurricane Ivan opens a new door for us. Rain is REALLY our friend.
- 24/7 operation is needed to keep us committed our motto: we’ll be there when you need us.
- This improves our facility performance for clients in many industries.
- Now we can discharge up to 180,000 gallons per day!

NEXT STEP:

ENERGY IS # 1

2010-Present

Oil & Gas Waters

- 2011: DEP Solid Waste Permit is renewed until 2/16/2021.
- March 2011-Permit modified allowing MEI to add additional equipment to the oil & gas waters reuse treatment process.
- April 2011-Governor & DEP send out edict to producers to stop delivering waters to permitted facilities.

O & G Unload & Reload
Clarifier & Weir

Solids Removal

NEXT STEP:
SOLIDIFICATION UPGRADES
Circa 2013

Waste Reduction

- Pit capacity was expanded.
- A Rotary Press was added to the process to separate the liquids and reduce the amount of product needed to solidify waste.
- Our carbon footprint decreased as using less solidifying agent means less waste to the landfill.

More Is Better

Solidification Upgrades

Solidification Upgrades
Adapting to the times

- Waste treatment is a journey filled with peaks and valleys.
- Adapting to the needs of our customers is our number 1 priority.
- “Protecting our environment for tomorrow's generations”

Questions?