

CASE STUDY

Flexible Tank Cover



NAWC Septage Treatment Facility (circa October 2020 -- Photo courtesy of Google Earth)

- Owner:** Wind River Environmental
- Founder:** NAWC Environmental, LLC
- Facility:** NAWC Septage Treatment Facility
- Location:** Warminster, PA
- Year Inst.:** 2018
- Capacity:** Approx. 200,000 Gal per day
- Treated Vol.:** Approx. 100,000 Gal per day

The **NAWC Septage Treatment Facility** located in **Warminster, PA** was founded by **NAWC Environmental, LLC** and is now owned operated by **Wind River Environmental** based out of **Marlborough, Mass.** Wind River Environmental and NAWC Environmental specialize in transporting and treating a broad array of non-hazardous liquid waste systems, including grease traps, septic tanks, and related waste systems. Their clientele includes residential, business, and municipal customers. The treatment facility in Warminster, PA, was established in 2018, and currently treats an average of 100,000 GPD, which is approximately half of their design treatment capacity.

The PROBLEM

The NAWC Septage Treatment Facility is located in an industrial complex that is densely populated by both residential and industrial neighbors. The facility has multiple open top tanks which allowed odors to be released to atmosphere, resulting in complaints from neighbors.



Prior to 2018, open equalization tank filled with septage (wastewater).



NAWC Septage Treatment Facility prior to 2018 with multiple open tanks (aerial courtesy of Google)

CASE STUDY

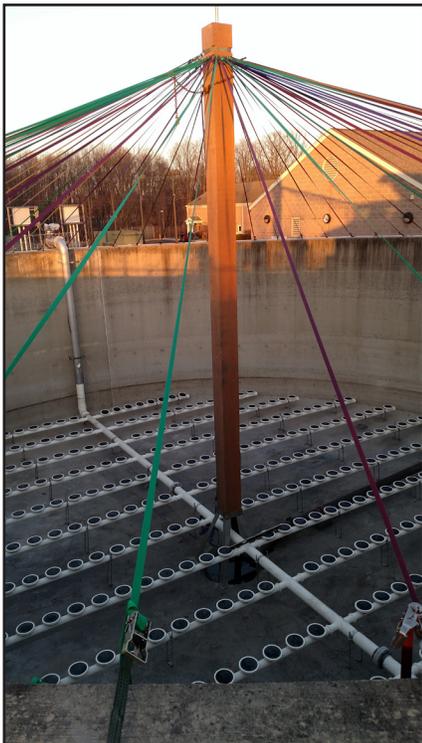
Flexible Tank Cover

The SOLUTION

Prior to current ownership by **Wind River Environmental, NAWC Environmental** determined their equalization tank was their primary source of odors at the site. The equalization tank (EQ tank) holds screened raw untreated septage (wastewater) brought into the facility. That septage is gradually fed into other processes at the plant, including a digester, for treatment. After doing their own research into options for controlling the odors, it was determined that covering the tank was the best long-term and most economical option. Covering the tank enabled NAWC Environmental to capture the odors emitted from the tank, where they could then evacuate the headspace using a blower and send it through a biofilter before being released to the atmosphere.



Fall 2018 – Newly installed **Flexible Tank Cover** system designed and installed by **Industrial & Environmental Concepts, Inc. (IEC)** for the **NAWC Septage Treatment Facility** (Warminster, PA).



Center support column with radial tensioning straps.



Winter 2018 -- IEC's **Flexible Tank Cover** system consists of a flexible geomembrane supported by a center column and tensioned with straps. Materials are high-strength, chemically-resistant, and UV-protected to ensure a maximum service-life under harsh conditions.

CASE STUDY

Flexible Tank Cover

The RESULT

IEC's Flexible Tank Cover has successfully contained the odors in the EQ tank, and neither ownership (**NAWC Environmental**, nor **Wind River Environmental**) has had any complaints in nearly four years! (This case study was written in 2021)

In addition to improving community relations, IEC's Flexible Tank Cover has enabled the plant operators and the owners to focus on their jobs, resulting in increased productivity, and time savings.



Biofilter draw-off connection to cover.



Biofilter.

CASE STUDY

Flexible Tank Cover

CONCLUSION(S)

IEC's **Flexible Tank Cover** has performed as intended to capture odors from the EQ tank at the **NAWC Septage Treatment Facility** in Warminster, Pennsylvania. Since cover installation, there have been no complaints from the community.

IEC's Flexible Tank Cover system is a high-quality cover at a lower cost compared to other noteworthy products such as FRP, Aluminum and geodesic dome designs.

IEC's **Flexible Tank Cover** system is designed to accommodate local snow and wind loads. It consists of high-strength, chemically-resistant, UV-protected materials. It has no requirement for scheduled maintenance and enables equipment to be easily accessed by plant staff by incorporating sealed hatches if necessary.

IEC's **Flexible Tank Cover** system is also a great choice for improving TSS by blocking sunlight to prevent unwanted algae growth which creates continuous cleaning and maintenance for plant staff.

"I purchased the IEC Flexible Tank Cover based on what I considered to be the best value for my dollars. I am pleased to say, I got MUCH more! Value, ease of installation, great support from IEC, and durability. We are nearly four years in, and the cover still looks like new! I would definitely say, 'Mission accomplished' for controlling the odors at this facility."

– Mr. Tom Ferrero | Founder of the NAWC

Septage Treatment Facility

Industrial & Environmental Concepts (IEC) has been an industry leader in the design, fabrication and installation of geomembrane cover and liner systems for tanks, ponds, and lagoons since 1993.

Municipal, industrial and agricultural clients across four continents have relied on our innovative designs. That's because IEC engineers design each system to meet each customer's unique needs and operational requirements.

Our innovative product designs and years of industry expertise, provide the advantages you deserve and the quality you need.