



# Environmental Stewardship Program

Thursday Pools LLC

Success Story

## Emissions Reduction (VOCs)

### Background

Thursday Pools was founded by friends Bill Khamis and Ed Vondell who met at an executive Master of Business Administration (MBA) program. In 2009 after Bill ordered a fiberglass pool and was disappointed in its quality, he decided, that instead of returning the pool, to use his years in fiberglass manufacturing to improve the pool and then began manufacturing pools himself. Since 2010, Thursday Pools has been manufacturing one piece fiberglass swimming pools in Fortville, Indiana. The 150,000 square-foot manufacturing facility sits on 100 acres of land. They employ over 80 Hoosiers and have been an Environmental Stewardship Program (ESP) member since February 2018.

Thursday Pools Environmental Management System (EMS) has been certified under the ISO 14001:2015 international standard since November 20, 2017. Thursday Pools facility also has a quality management system based on the ISO 9001:2008 standard. Thursday Pools is also part of the following programs and alliances:

- Partners for Pollution Prevention
- The Association of Pool & Spa Professionals
- American Composite Manufacturers Association
- Pool & Hot Tub Alliance

### Project Implementation

The project implemented by Thursday Pools was Volatile Organic Compound (VOCs) emissions reduction using a VOC concentrator with natural gas-fired thermal oxidizers. The facility currently falls below the limit requiring them to implement pollution control measures regarding their VOC emissions. However, as good stewards of the environment Thursday Pools believed it was their responsibility to help reduce the level of emissions to the atmosphere.

As such, in 2020 and 2021 they installed VOC concentrators with gas-fired thermal oxidizers to reduce their emissions. They installed their first thermal oxidizer in 2020 and after seeing the results it produced, they decided to install a second larger thermal oxidizer to complement the first. The second thermal oxidizer was installed in 2021.

The first thermal oxidizer has a maximum heat input capacity of 2 million British thermal units per hour (MMBtu/hr) and the second one had a maximum heat input capacity of 10.4 million British thermal units per hour (MMBtu/hr). The VOC concentrators with gas-fired thermal oxidizers operate at 99% efficiency. The VOC concentrator along with the gas-fired thermal oxidizers cost over \$1,000,000.



**VOC concentrators with natural gas-fired thermal oxidizers**

## Results

The installation of the VOC concentrator with gas-fired thermal oxidizers successfully resulted in the destruction of over 50 Tons of VOC in the two years they have been active. Table 1 shows the VOC destruction for the last three years along with the production quantity per year. The second thermal oxidizer increased the destruction of VOCs per pool from the previous year.

Year	2019	2020	2021
<b>Production Quantity (Pool)</b>	890	1854	3421
<b>VOC's Destroyed (tons)</b>	0	12	38
<b>VOC's Destroyed / Production Quantity (tons/Pool)</b>	0.0	0.0065	0.0111

Table 1. Thursday Pools LLC VOC destruction from 2019 to 2021.

## Cost Savings

There was no cost savings reported regarding this project.

## Facility Contact

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