Industrial Arts Brewing Company (Industrial Arts) is a medium sized craft brewery located in Garnerville, NY. The brewery produced approximately 16,000 barrels of beer in 2019. Despite the COVID-19 pandemic, Industrial Arts continued to grow and readily hit their production target for 2020. In addition to an onsite taproom, Industrial Arts also distributes beer to storefronts.

**Challenge**

Industrial Arts wanted to understand and decrease the environmental impact of the brewery as part of their commitment to environmental stewardship. As a growing brewery, Industrial Arts has exemplified a commitment to sustainability and has already incorporated a number of methodologies and techniques to be more sustainable. However, Industrial Arts wanted a fresh perspective to learn even more opportunities to further their sustainable practices. As part of the Brewery Sustainability Initiative being pursued by the New York State Pollution Prevention Institute (NYSP2I), Industrial Arts completed an initial brewery survey and were selected to receive an onsite opportunity assessment.

**Solutions**

NYSP2I collaborated with Cornell University to help evaluate and identify any opportunities to reduce Industrial Arts’ environmental footprint. NYSP2I conducted a virtual site visit to collect baseline metrics and identify pathways for improving Industrial Arts’ existing sustainability practices.

**Challenge**

- Industrial Arts wanted to identify methods to further decrease the environmental footprint of the brewery.

**Solution**

- NYSP2I collaborated with Cornell University and conducted a virtual site visit and a collection of baseline metrics to help evaluate and identify any opportunities to reduce Industrial Arts’ environmental impact.

**Results**

- Industrial Arts has implemented several sustainability practices to reduce water consumption and waste generation like recapturing steam from the brewing process, centrifuging solids out of post-fermentation beer, and using nitrogen generation to decrease dependence on carbon dioxide.

- NYSP2I and Cornell University identified a number of relatively simple ways to further decrease water, chemistry, and natural gas consumption in the brewery.
Results

Industrial Arts has already implemented a number of practices to reduce the brewery’s environmental footprint when the virtual opportunity assessment was performed by NYSP2I and Cornell University. These include:

- Condensing steam from the kettle for reutilization via the hot liquor tank.
- Centrifugation of post fermentation beers to remove any remaining waste solids.
- Utilizing nitrogen to purge kegs and tanks and decrease dependence on carbon dioxide.

The work performed by NYSP2I and Cornell University led to key findings to support Industrial Arts in their pursuit of decreased environmental impact. Some considerations for Industrial Arts to review include:

- Analyzing wastewater on a monthly basis to monitor and track key criteria like biological oxygen demand (BOD) and total suspended solids (TSS).
- Insulating the outside stretch of piping in the summer time to avoid unwanted heating of the fluid heading towards fermentation.
- Reutilizing the final rinse of one cleaning cycle as the first rinse of another to decrease chemical use and water consumption.

“Working with NYSP2I validated assumptions about our environmental impacts, identified areas for improvement, and gave us new tools to help us strengthen our commitment to sustainability.”

Jeff O’Neil
Industrial Arts

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