CASE STUDY

New York State
Pollution Prevention Institute

Lucky Hare Brewing Company Seeks to Improve its Sustainable Manufacturing Practices

Challenge

Lucky Hare wanted to identify more ways that the brewery could reduce its environmental footprint.

Solution

NYSP2I performed an assessment to obtain metrics for a baseline. The evaluation helped to identify additional methods for sustainable brewing which Lucky Hare could choose to implement

Results

- Implemented sustainable practices such as LED lighting, recycling waste energy via a heat exchanger, and sending spent grain to a pig farmer.
- The Brewery Sustainability Initiative assessment identified opportunities including air sealing the cold room, switching to using citric acid for passivation, and using a CIP process.

Lucky Hare Brewing

Lucky Hare Brewing is a small brewery located in Watkins Glen, NY. The annual brewhouse production is projected to be approximately 1000 barrels of beer per year. This brewery has beer with styles ranging from their traditional flagship ESB to a wide range of IPAs, kettle sours, barrel aged Russian Imperial Stouts and interpretations of Belgium Style Ales. Lucky Hare is continuing to strive for increased environmental excellence.

"The NYSP2I made the process of assessing our sustainability practices very easy and effective. It helped us identify key areas for improvement as well as validate the practices we already had in place. I'm looking forward to working with Ken and his team in the future to further create a more sustainable industry."

Anthony Cordova

Challenges

Lucky Hare wants to assess and improve their sustainable manufacturing practices as they strive toward environmental excellence. This small brewery has already implemented several methods to improve their environmental footprint, and with the help of the New York State Pollution Prevention Institute (NYSP2I), they were able to assess the process and provide key insight to make improvements. NYSP2I performed various tasks to identify and evaluate methods to reduce water use, waste, chemical use, and energy consumption, as well as increase the throughput of the current production facility.

Solutions

The objective of this project was to evaluate the brewing process for potential areas of improvement. NYSP2I collected metrics for a baseline and then created a list of opportunities for Lucky Hare to consider.

Results

Lucky Hare has already taken action to decrease the brewery's environmental footprint through the implementation of various sustainable practices including:

- Send spent grain to a pig farmer
- Reuse yeast to reduce purchase costs
- Reuse chemistries to maximize extent for every cleaning
- Recycle waste energy via a heat exchanger
- Utilize LED lighting throughout the facility

The assessment performed by NYSP2I identified some opportunities for implementation of new practices regarding energy conservation, water use, process waste, and chemical usage. Some of the opportunities Lucky Hare can choose to implement include:

- Installation of low flow nozzles and hoses
- Install additional water meters on the brewing-process feed lines
- Reuse dirty caustic solution and water from tank cleanings to clean the brewery floors
- Use of centrifuge or hydraulic pressing of solids to extract more beer from brewing waste
- Use of a CIP process to standardize chemical use and limit water use each cleaning
- Switch to using citric acid for passivation rather than nitrophosphoric acid
- Air seal the cold room and insulate other areas with damaged or missing insulation
- Read and report meter readings and/or switch energy suppliers for more consistent electric bills

Partners

RIT
Binghamton University, State University of New York
Clarkson University
Cornell CALS, College of Agriculture and Life Sciences
Rensselaer
New York Manufacturing Extension Partnership

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