



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, ILLINOIS 60604**

SUBJECT: CLEAN AIR ACT INSPECTION REPORT
Watertown Hops Company, Watertown, Wisconsin

FROM: Dakota Prentice, Environmental Engineer
AECAB (IL/IN)

THRU: Nathan Frank, Section Supervisor
AECAB (IL/IN)

TO: File

BASIC INFORMATION

Facility Name: Watertown Hops Company

Facility Location: 1224 American Way, Watertown, WI

Date of Inspection: June 26, 2023

EPA Inspector(s):

1. Dakota Prentice, Environmental Engineer
2. Laura Neudorf, Environmental Engineer

Other Attendees:

1. Timothy Koel, Operations Manager – Watertown Hops Company
2. Dana Lephardt, Quality Manager – Watertown Hops Company
3. Mike Ryan, Chemical Engineer – Watertown Hops Company

Contact Email Address: Timothy Koel – timothy.koel@millercoors.com

Purpose of Inspection: to determine compliance with the Wisconsin state implementation plan (SIP) and the Clean Air Act

Facility Type: Hops Extraction Facility

Regulations Central to Inspection: The facility is currently subject only to provisions of the Wisconsin SIP and permits issued by the Wisconsin Department of Natural Resources (WDNR).

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Date of Inspection: June 26, 2023

Arrival Time: 10:10AM CDT
Departure Time: 12:00PM CDT

Inspection Type:

- ☒ Unannounced Inspection
- ☐ Announced Inspection

OPENING CONFERENCE

- ☒ Presented Credentials
- ☒ Stated authority and purpose of inspection
- ☒ Provided Small Business Resource Information Sheet
- ☐ Small Business Resource Information Sheet not provided. Reason: Not a small business
- ☒ Provided CBI warning to facility

The following information was obtained verbally from Watertown Hops personnel unless otherwise noted.

Company Ownership: In approximately March of 2020, the ownership entity of the facility transitioned from MillerCoors LLC to Molson Coors Beverage Company LLC.

Process Description:

The main raw material is CO₂ extracted hops. The CO₂ extraction step is performed offsite. This raw material consists of three main components: 1. alpha acids, 50% (humulones), 2. beta acids, 15-30% (lupulones), and 3. hop oil. Production starts with isomerization of the alpha acids in a reaction vessel to form iso-alpha acids. The iso-alpha acids are first separated from the beta acids and hop oils with water, pH, and temperature, and the beta acids and hop oils are then separated with temperature. Each component is sent to a separate tank. The hop oil is a final product and does not undergo additional processing. Water in the iso-alpha acid material is removed with pH adjustment and treated on-site, and the iso-alpha acid material can then follow multiple processing pathways for formation of final products. One of those processes produces a tetrahydro-iso-alpha acid and uses ethanol. This ethanol is removed from the final product using two thin-film evaporators in parallel and recovered for reuse using a distillation unit. The beta-acid material follows only one processing pathway, to produce a tetrahydro-iso-alpha acid product.

Staff Interview: The facility has 16 employees and operates 24 hours per day, Monday through Friday. The facility uses nine vent condensers to control emissions from tanks containing ethanol (Tanks 7, 12, 13-16, 18, DS1, and 63) and the distillation unit. An alarm is triggered if the cooling water is elevated and production cannot commence if the water is greater than 40°F at the condenser inlets.

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TOUR INFORMATION

EPA Tour of the Facility: Yes

Data Collected and Observations:

EPA observed some production units and also accessed the roof of the facility to observe emission points using an optical gas imaging (OGI) camera. EPA was not allowed to image many production units with the OGI camera due to intrinsic safety concerns. The OGI camera observed gases exiting the “Packaging Common Vent”, which routes material from Tank 61 to the atmosphere. Tank 61 was in use during this observation.

Photos and/or Videos: were taken during the inspection.

See Appendix A

Field Measurements: were not taken during this inspection.

CLOSING CONFERENCE

☒ Provided U.S. EPA point of contact to the facility

Requested documents:

- The most recent operating permit issued by WDNR and the supporting permit application.
- Annual emission report with supporting calculations.
- An SDS for material in Tank 61.
- A process flow diagram.

DIGITAL SIGNATURES

Report Author: DAKOTA PRENTICE Digitally signed by DAKOTA PRENTICE
Date: 2023.07.05 13:20:13 -05'00'

Section Supervisor: Frank, Nathan Digitally signed by Frank, Nathan
Date: 2023.07.11 11:58:28 -05'00'

Facility Name: Watertown Hops Company
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APPENDICES AND ATTACHMENTS

Appendix A – Digital Image Log

Appendix B – Digital Video Log

Facility Name: Watertown Hops Company
Facility Location: 1224 American Way, Watertown, Wisconsin
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APPENDIX A: DIGITAL IMAGE LOG

1. Inspector Name: D. Prentice	2. Archival Record Location: Region 5 Electronic Records Center
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Image Number	File Name	Date and Time (CDT)	Description of Image
1	IMG_0507	6/26/23 11:24 AM	Tank - 62
2	IMG_0508	6/26/23 11:46 AM	Packaging Common Vent (Center Stack)

Note: Digital Image 1 (IMG_0507) has been claimed as confidential business information

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APPENDIX A: DIGITAL VIDEO LOG

1. Inspector Name: L. Neudorf	2. Archival Record Location: Region 5 Electronic Records Center
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Video Number	File Name	Date	Description of Video
1	MOV_3133	6/26/23	Packaging Common Vent