

Strengthening Minnesota businesses by maximizing efficiency and lowering costs through energy, water and waste reduction

Internship: Lead a project focused on water conservation at an ethanol plant.

Company: Heartland Corn Products – Winthrop, MN

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on water conservation with Heartland Corn Products in Winthrop, MN. The intern will work with MnTAP and Heartland Corn Products staff to explore cooling tower efficiency and RO water use to minimize cooling tower blowdown to save water. The intern will quantify these opportunities and develop suggestions to increase efficiency, as well as outline plans for implementation.

JOB DUTIES:

As part of this project, you will be asked to complete the following tasks:

1. Review the process water map and initial ideas for water conservation.
2. Revise initial water conservation calculations with on-site conductivity values.
3. Test different cycles of concentration in the cooling towers and evaluate the impact on water use and equipment.
4. Research other water conservation solutions for the facility including a RO system that recycles water for the cooling towers.
5. Investigate heat recovery opportunities at the facility.
6. Estimate energy and water reduction potential from implementation of provided recommendations, then prioritize suggested changes using simple payback methods for financial justification.
7. As appropriate, initiate implementation of approved process changes or develop plans for future implementation.
8. Summarize findings in a detailed report, including recommended procedures and vendor proposals along with an economic analysis and justification of changes.
9. Present findings to the company and at MnTAP-hosted public presentation events.

As an intern, you will work at the company and report back to MnTAP. The position is full time, 40 hours per week, for three months to start after the conclusion of spring semester or quarter. Pay is \$16/hour, with a lump sum stipend of \$1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to \$18.00/hour when averaged over the project. Candidates must pass a background check.

QUALIFICATIONS:

- Cumulative GPA of at least 3.0
- Good oral & written communication skills
- A technical academic background
- Troubleshooting skills
- Self-motivated
- Excel and other software skills
- Appropriate majors: *Engineering, environmental or physical sciences and others as applicable*

TO APPLY:

Apply online at:

www.mntap.umn.edu/intern/student_apply.htm

Remember to submit your application form, cover letter, resume, and unofficial transcript.

Applications can be addressed to:

Matt Domski, Intern Program Manager

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Minneapolis, MN 55455 • mdomski@umn.edu

MNTAP IS THE HIRING BODY: DO NOT CONTACT THE COMPANY