University of Minnesota



Minnesota Technical Assistance Program

200 Oak Street, Suite 350-1 · Minneapolis, MN 55455-2008 612/624-1300 · www.mntap.umn.edu · mntap@umn.edu

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

Internship: Lead a project focused on energy efficiency.

Company: Cemstone - Mendota Heights, MN

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on energy efficiency with Cemstone. The intern will work with MnTAP and Cemstone staff to reduce the energy intensity of a variety of processes associated with mining, ready-mix concrete manufacturing, dry concrete bagging, and chemical mixing. The student will evaluate energy efficiency opportunities at up to four types of facilities over the course of the summer. The intern will quantify these opportunities and develop suggestions to conserve energy as well as outline plans for implementation.

JOB DUTIES:

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

- 1. Identify and quantify main uses of energy within a ready-mix facility.
- 2. Develop solutions to reduce energy, with a focus on quick implementation.
- 3. Make recommendations for specific improvements based on research, testing, and calculation that will result in energy efficiency.
- 4. Repeat process at a chemical mixing plant, an aggregate mining site, and a dry bagging facility as time allows.
- 5. Estimate energy and carbon equivalent reduction potential from implementation of provided recommendations.
- 6. Calculate \$ spent/ton of CO_2e avoided then prioritize suggested changes using both this value and simple payback methods.
- 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 \$18/hour, with a lump sum stipend of \$1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to \$20.00/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/interns/student/apply/

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

Applications can be addressed to:

Matt Domski, Intern Program Manager

200 Oak Street SE, Suite 350-1

Minneapolis, MN 55455 • mdomski@umn.edu

MNTAP IS THE HIRING BODY: DO NOT CONTACT THE COMPANY