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 water reduction at a large motor manufacturer.

COMPANY: Electric Machinery, Minneapolis MN

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on non-contact cooling water reduction at a facility that manufactures, tests and repairs very large motors and generators. The intern will work with Electric Machinery staff to quantify the use of water within single pass cooling systems, and to perform a cost-benefit analysis on the implementation of water reduction opportunities.

JOB DUTIES:

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

- 1. Quantify single pass non-contact cooling water usage (frequency, duration, and total volume).
- 2. Evaluate the overall benefit of implementing water recirculation loops and other water reduction strategies for significant processes.
- 3. Investigate the chemical treatment process of water discharges and propose a method to match treatment to water discharge volumes.
- 4. Evaluate the opportunity to more efficiently use water for additional cooling and testing applications.
- 5. Work with company management and employees to determine the feasibility of alternative equipment, methods, or processes.
- 6. Create a plan for the implementation of approved changes and initiate the implementation of those plans as time permits.
- 7. Summarize findings in a detailed report, including recommended procedures and vendor proposals along with an economic analysis and justification of recommendations.
- 8. 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 \$13/hour, with a lump sum stipend of \$1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to \$15.00/hour when averaged over the project. Candidates must pass a drug test and 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.

Cover letters can be addressed to:

Nathan Landwehr, Intern Program Administrator 200 Oak Street SE, Suite 350-1

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MNTAP IS THE HIRING BODY: DO NOT CONTACT THE COMPANY