2016 MnTAP Summer Internship: Xcel Energy metro-area power plants
Evaluate opportunities for water conservation and reuse
The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on water conservation at three Xcel Energy power generation plants in the Twin Cities metro area. The intern will review the current water balance diagrams and evaluate the potential for water use reduction or reuse in multiple processes used at each plant.

JOB DUTIES:
As part of this project, you will be asked to work on the following tasks:

**Riverside plant - NE Minneapolis**
1. Analyze water conservation progress implemented in 2015 MnTAP intern project, and identify additional water conservation opportunities as a team participant in a heat rate efficiency initiative.
2. Optimize the boiler makeup water polishing system.
3. Identify, quantify, and minimize boiler makeup water and condensate water loss.

**Black Dog plant - Burnsville**
1. Track makeup water use.
2. Identify, quantify, and minimize boiler makeup water and condensate water loss.
3. Identify and implement improvements to reverse osmosis and demineralization equipment.
4. Optimize process operating set points that affect water consumption and efficiency.
5. Develop water leak program, identify prioritize, quantify, and document financial impact.
6. Review auxiliary power consumption to determine if improvements are possible.
7. Identify possible uses of low pressure steam.
8. Provide input on water balance, project plans, and design criteria for installing a new process pond.

**High Bridge plant - St. Paul**
1. Track makeup water use.
2. Optimize the boiler makeup water polishing system.
3. Identify, quantify, and minimize boiler makeup water and condensate water loss.

Organize and manage project tasks, activities, and project documentation effectively and distinctly for each facility. Communicate effectively and in a timely manner with facility staff. Work competently, professionally, and safely. Summarize findings in a detailed report. 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 have a valid driver license and pass a drug test.

QUALIFICATIONS:
- Cumulative GPA of at least 3.0
- Good oral & written communication skills
- Strong technical academic background
- Troubleshooting skills
- Self-motivated and high energy
- Good working with hands
- Appropriate majors: Engineering – Mechanical, Chemical, or Civil

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:
Linda Maleitzke, Intern Administrator
200 Oak Street SE, Suite 350-1
Minneapolis, MN 55455 • lmaleitz@umn.edu

MNTAP IS THE HIRING BODY: DO NOT CONTACT THE COMPANY.