

INTERNSHIP: Optimize the evaporative cooling of product to increase production rates and reduce water use (Summer 2017)

COMPANY: CertainTeed Roofing, Shakopee, MN

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on optimization of the evaporative cooling of shingle products during manufacturing to maintain production rates during humid conditions and to improve the effectiveness of water used. This will involve understanding how water is applied, the evaporative cooling process, how air is applied to aid drying and how exhaust removes moisture. CertainTeed is a major, national manufacturer of roofing products.

JOB DUTIES:

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

1. Evaluate how water, air, and exhaust are applied to accomplish evaporative cooling of product.
2. Identify modifications to equipment and procedures to improve cooling and optimize the use of utility materials.
3. Identify the opportunity to recover and reuse this and other cooling water streams in the plant to reduce water consumption.
4. Evaluate potential improvements to these operations and demonstrate the feasibility of change.
5. Develop a cost-benefit analysis and justifications for the most promising changes identified, and make formal proposals for implementation to management as appropriate.
6. Organize and manage project tasks, activities, and project documentation effectively.
7. Work with plant staff and contractors to guide implementation as appropriate.
8. Summarize the recommendations and results in a detailed report.
9. Present project findings to CertainTeed, and at a MnTAP hosted public presentation event.

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 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: *Mechanical and Chemical engineering; other engineering, environmental or physical sciences and others with applicable experience*

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:

Nathan Landwehr, Intern Program Administrator
200 Oak Street SE, Suite 350-1
Minneapolis, MN 55455 • landwehr@umn.edu

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