## 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 waste and energy conservation at a local defense and weapons systems company.

# Company: Northrup Grumman - Elk River, MN

The Minnesota Technical Assistance Program (MnTAP) is seeking a junior or senior college student to lead a project focused on waste and energy conservation with Northup Grumman in Elk River, MN. The intern will work with MnTAP and Northrup Grumman staff to develop a detailed energy and waste balances for the facility to help identify areas of the process that have opportunities for reduction. 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. Analyze waste generated from targets used in ballistic testing, and gain understanding of testing material specifications.
- 2. Research alternative materials and methods to reduce waste from ballistic tests.
- 3. Identify and quantify energy uses throughout the campus.
- 4. Research methods to reduce and optimize energy usage for compressed air, lighting, fans, and boilers.
- 5. Make recommendations for specific improvements based on research and testing that will result in waste and energy use reduction, reuse, treatment, or recycling opportunities.
- 6. Estimate waste and energy 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 \$15/hour, with a lump sum stipend of \$1,000 upon completion of the project deliverables: a final report and presentations. Cumulatively, this equates to \$17.00/hour when averaged over the project. Candidates must be a United Stated citizen and 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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## MNTAP IS THE HIRING BODY: DO NOT CONTACT THE COMPANY