Central Heating Plant
Media Relations

Intern: Veronica Rog
Mentor: Mark Menefee
1. Introduction:

The Central Heating Plant has served the Indiana University Bloomington campus since 1885 and has undergone five different location changes in its history. Recently, the Central Heating Plant has taken initiatives to lower carbon and other harmful emissions through the installation of four baghouses. With the addition of the baghouses, particulates will be significantly reduced. In an effort to save the University money and reduce carbon emissions, the Central Heating Plan also installed a microsteam turbine. This new technology uses energy that would otherwise have been wasted during the lowering of the pressure of steam at the plant. The turbine will generate electricity that will fuel operations of the plant.

With the addition of the new microsteam turbine, the Central Heating Plant will reduce its carbon emissions by 2,016 tons per year and save the University nearly $150,000 a year.

The objectives of my internship were to make information about the plant and the new renovations available to IU students and the general public through: 1) creating and updating presentation materials used at the Central Heating Plant, 2) creating materials about the operations of the Central Heating Plant and reducing carbon emissions to be made available through
the Physical Plant website, and 3) writing press releases to be sent to local newspapers and news stations.

2. Methods:

In order to fulfill the goals stated above, I worked with my mentor to create documents that would: help him better present the workings of the plant during tours, create informative content about the Central Heating Plant and conservation that could be put on the website, and inform the public about the new renovations and efforts to make the plant more sustainable to the public.

The first objective was to create and update materials used at the Central Heating Plant for tours and presentations largely to IU students and faculty. With the help of my mentor, Mark Menefee, we created posters that more accurately represented the model of the Central Heating Plant, as well as updating information about current energy consumption on campus and why the University burns coal instead of natural gas.

The second objective was to create materials for the Physical Plant website so that IU students and the public can easily access information about the Central Heating plant operations. In addition to creating materials about the Central Heating Plant, I also created pages for the website about
ways to reduce your carbon footprint and how to reduce your heat and electricity consumption.

The final objective was to write press releases about the initiatives that the Central Heating Plant has taken to become more sustainable. These initiatives include the addition of the baghouses and the microsteam turbine.

3. Conclusion:

Before the documents that I created this summer can go “live” on the Physical Plant website, they have to be approved by several heads of departments and then be uploaded by the editor of the Central Heating Plant’s newsletter, Sandy Lynch. As of yet, these pages are still in the approval process, but Ms. Lynch is passionate about going further with updating the website. The posters will soon be printed and be made available to Mark for his tours and presentations of the Central Heating Plant. The press release will also be sent to news sources in the near future.

With the addition of these new resources, IU students and the general public will be able to access information about: how the Central Heating Plant works, campus consumption of various utilities, and the steps that the Central Heating Plant has taken to become more sustainable and reduce its carbon emissions. The hope is that by educating IU students about their
energy consumption and how the Central Heating Plant operates that they will be more willing to conserve their utility usage, thereby furthering the reduction of carbon emissions.
Appendix A: Sample Poster

Central Heating Plant #5

- Baghouse #5 and #6
- Baghouse #3 and #4
- Flue Stack #2
- #7 Boiler
- Gas/Oil: 150,000 lb/hr, 80,000 lb/hr, 80,000 lb/hr, 180,000 lb/hr
FOR IMMEDIATE RELEASE

IU Central Heating Plant Installs New Money Saving, Carbon Reducing Turbine

BLOOMINGTON, Ind., -- The Central Heating Plant recently installed a microsteam turbine, which will lower wasted energy and reduce carbon emissions. The microsteam turbine converts the energy produced from lowering the pressure of steam into electric power. Before the installation of the microsteam turbine, this energy would have been wasted.

The new turbine will operate at an 80% efficiency rate. This new technology will allow for unattended operation and only requires the push of a single button to start-up. The unit will attach directly onto the Central Heating Plant’s pressure reducing valves (PRVs) and will feed energy directly into the operation of the plant.

The energy captured by the microsteam turbine will replace the need to purchase energy used in Central Heating Plant operations from the electric company. The installation of the new turbine will save the university nearly $150,000 a year and lower carbon emissions by 2,016 tons per year. The
installation of the microsteam turbine is one of many initiatives that Indiana University is taking to creating a sustainable future.

Appendix C: Sample Web Page
Conserving Heat

Close your blinds during the hottest part of the day.

Turn on a humidifier during the winter months.

In the summer, run the blades of your fan counter-clockwise. This will draw the cool air upward, eliminating the need to turn up the AC excessively.

Replace air filters regularly.

Conserving Electricity

Computers indirectly create nearly 500 pounds of carbon dioxide per year. Turning them off when not in use will save 43 pounds.

Use a power strip as a central “turn off” point.

Compact fluorescent bulbs use up to 75 percent less electricity. They also last about 10 times longer.

Keep your refrigerator at 37°- 40°F and your freezer at 5°F.