WATERLOO TECHNICAL SOCIETY

11 April 2001 MEETING MINUTES

The 11 April 2001 meeting of the Waterloo Technical Society was held at the Holiday Inn Greenstreets Restaurant in Cedar Falls, IA with 34 members and 2 guests present. The meeting was called to order by Vice-President Chuck Angel at 7:15 PM. Past Presidents and Honorary Members were recognized. Minutes of the 14 March 2001 meeting were read and approved.

Gordon Licht presented the Treasurer's report including the transactions that had taken place between 14 March 2001 to 11 April 2001. The ending balance was $523.66.

A proposal was submitted from the floor for a future program on the advantages and disadvantages of home heating and cooling with a heat pump. Potential sources for an expert on this subject are the UNI Renewable Energy Department and the Iowa Energy Center.

Our Program chairperson was Chuck Angel and he introduced the speakers for the evening, Pete Olson and Kent Means from the Cedar Falls Utilities (CFU). Pete and Kent presented information on electrical power generation at CFU.

CFU is part owner of a 675,000 kilowatt power station located in Council Bluffs and a 624,000 kilowatt power station located in Neal, located near Sioux City. These two stations supply about two thirds of the power for Cedar Falls. The remaining power requirement is supplied by CFU's own power generating facilities. CFU is also a joint owner in the Iowa Distributed Wind Generation project located near Algona. This facility may provide 1,500 kilowatts of power to Cedar Falls in the future.

The CFU electrical power generating operation consists of the Streeter Station facility and the 27th street facility. The Streeter Station facility has two coal fired steam turbine generating units. Unit #6 has a 16,500 kilowatt generator and was installed in 1962. Unit #6 uses a stoker boiler. Unit #7 is a 35,000 kilowatt unit installed in 1973 and uses a more modern pulverized coal boiler. Unit #7 operates at a temperature of 900 degrees and a pressure of 1,200 psi. The efficiency is about 24% compared to a more modern boiler operating at 1,200 degrees, 3,600 psi, and an efficiency of about 34%.

Streeter Station uses eastern coal acquired mainly from Illinois, Pennsylvania, West Virginia, and Kentucky. The coal is 13,000 BTU per pound medium sulfur coal. CFU burns 30,000 to 40,000 tons of coal per year.

The 27th Street Station has a gas or oil fired turbine and is rated at 25,000 kilowatts. This turbine has black start capability and can be remotely controlled from the Streeter Station facility.

Cedar Falls has an electrical energy peak load of 91 megawatts and CFU has a total capacity of 140 megawatts. The excess energy is sold through the Mid-Continent Area Power Pool. CFU is linked with this regional group of power suppliers in nine Midwestern states and two Canadian provinces.

The meeting was adjourned at 8:00 PM for a tour of the Streeter Station generating plant.

Respectfully Submitted,

Darrell Wright, CO-Secretary