



Mechanical/Environmental Sustainability Project

See-Thru Nuclear Power Plant Model

Mission Statement

Phase I – Complete building, compiling, and manufacturing of a see-thru nuclear power plant model and demonstrate the operation to the Nuclear Regulatory Commission on February 15, 2013.

Phase II – Design, develop, and incorporate a steam turbine system to the model.

Synopsis

Through a donation from the U.S. Nuclear Regulatory Commission, the University of Hartford has had the opportunity to create a functional sub-scale model of a see-through nuclear power plant powered by electricity rather than nuclear fuel. The purpose of this sub-scale model is to educate people through demonstration about how nuclear power works. The purpose of the model being see-through is so that people can actually see what is happening inside the different components while it's running and understand all of the concepts and processes much easier than they would if they were simply looking at a diagram.

Using the latest CAD software, Autodesk Inventor, SolidWorks and LabView, the team created a working model that was demonstrated on February 15, 2013 to representatives from the Nuclear Regulatory Commission. The demonstration was televised on a local Hartford television station.

The research in acquiring a steam turbine has been completed. The turbine will be installed the Fall of 2013.



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