

## **Public Page**

This project is focusing on the design, construction and testing of a prototype segmented MFL sensor system for ultimate integration into a robotic platform for the inspection of unpiggable transmission pipelines. The effort was initiated in December 2004 and at the conclusion of this fifth quarter in February 2006, the project has progressed well.

The major issue facing the concept development phase, is the requirement that the sensor and entire robotic platform are able to pass through a plug valve and negotiate a mitered bend in a transmission pipeline. The restrictions imposed on the sensor in such cases are severe, necessitating the use of segmented sensor elements, each able to fit through the plug valve. Once the elements have passed through the plug valve, they can be potentially arranged in different ways to accomplish that task in hand. In addition, the elements have to be able to collapse in a reduced diameter shape to negotiate a mitered bend.

The sensor module is currently under construction and assembly. In addition, the control system for the sensor and its interaction with the platform is under development, both from a hardware and software point of view.

The project now moves into its sixth quarter during which the assembly will be completed and testing of the sensor system will be undertaken.