



Canadian Operational Research Society
Calgary Section

<http://www.corscalgary.org/>

PROFESSIONAL DEVELOPMENT SEMINAR

When: Noon to 1:30 PM, Friday, February 18, 2011

Room 217
TransCanada Tower
450 - 1 Street SW
(See attached map)

SPEAKER
Maurice Elliott, Husky Energy Inc.

TOPIC

**Using a Simple Simulation to Support Pipeline Contamination
Estimates**

Abstract:

This talk will describe how a simple simulation program has been incorporated into a large scheduling workbook in order to estimate flow volumes when batches of different products are received via a common pipe that serves a number of tanks containing different blended products. The major physical problem is that the valves that need to open and shut to direct the incoming batches into their proper tanks take time to swing, so some contamination is inevitable. Furthermore, there is considerable linefill volume in the pipe itself. On the other hand, customers need to have forecasts of how much product volume they will lose or gain as a result of this contamination before the events occur, and we need to be able to estimate the volumes, too, because we cannot meter them directly. The simulation model had to be kept relatively representative but also simple enough that it would not slow down the calculation speed of the workbook too dramatically. This talk will discuss the physical configuration of the pipe and tanks, and describe how it was represented in the workbook and the Visual Basic code behind the scenes.

About the Speaker:

Maurice earned a Bachelor's degree in Applied Mathematics, and a Master's Degree in Operational Research before emigrating to Toronto in 1970. There he worked for Massey Ferguson for ten years, then moved to Calgary to join Dome Petroleum in 1980. During the 80's, Maurice and his group were responsible for implementing a number of OR applications for Dome Petroleum, until it was taken over by Amoco Canada in 1989. In 1993, Maurice left Amoco to run his own O.R. consulting company. After a few years, he won a contract with the pipeline group of Husky Energy Inc., where he has worked ever since. After interviewing Husky for seven years as a consultant, he decided to become a full-time employee. At Husky, he has been responsible for providing business knowledge for the development of a major business administration system, for maintaining and upgrading a very large workbook used daily by a group of pipeline schedulers, and for implementing a wide variety of smaller applications.

There is no charge for attending the meeting. The room is available until 1:30 PM for those interested in staying afterwards to mingle and meet other OR practitioners.

Sketch of Location for CORS Meetings at TransCanada Tower in Conference Rooms 214 and 217.

