

**SEATTLE CHEMICAL INDUSTRIES
ENGINEERING DEVELOPMENT LABORATORY
SEATTLE, WASHINGTON 98195**

TO: Team C

FROM: Engineering Management

SUBJECT: Pump Characteristics

As a small division, we must sometimes use surplus equipment in our operations. We have just received two surplus pumps, and would like to know where they could be used. Unfortunately, we don't have information on their operating characteristics. One appears to be a positive-displacement pump; the other is a centrifugal pump.

For each pump, please prepare a chart similar to that shown in Fig. 10-47, page 10-31 of Perry's 7th Edition. Include estimated uncertainties for all reported values.

The positive displacement pump includes a motor speed controller. Please study this pump's performance at 40%, 70% and 100% of full speed. You may either combine all results on a single chart, or provide a chart for each speed. Choose the presentation you feel is most effective.

Based on your findings, suggest likely applications for each pump.