

THE USE OF MICROPROCESSOR BASED CONTROLLERS INTERFACED TO A COMPUTER TO ACHIEVE IMPROVEMENTS IN PLANT OPERATIONS

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INTRODUCTION

This paper describes a computer system installed on the Brine Plant at Lostock Works to provide a Data Acquisition and supervisory control system for the Brine, DBO, Water and Telemetry sections of the Plant.

The installation of the system was carried out in four phases. Phase I incorporated a new up-to-date control panel with TCS 6358, 6432 and 6433 instrumentation backed by a new supervisory control computer, for the control of the Mercury Cell quality brine purification stream.

Phase II added new panels to the Ammonia Soda and Ash Brine Plant Sections, Phase III covered the DBO Plant Sections and Phase IV dealt with the Telemetry and Services Sections.

This project replaced the existing control room equipment with microprocessor based controllers interfaced to a computer.

Brine Purification reagent expenditure currently amounts to £12 million per year. Savings of £0.5 million per year have already been achieved and further improvements of at least as much again are targetted.