# INEOS Chlor Increases Productivity and Efficiency Using Emerson's PlantWeb<sup>®</sup> Digital Architecture

# RESULTS

- Increased productivity and efficiency have contributed €1.3 Million annually
- Centralized control room has improved manning by 20%

## **APPLICATION**

Installing centralized control room at site with multiple plants.

### CUSTOMER

INEOS Chlor is one of the largest Chlor-Alkali producer in Europe and a global leader in chlorine derivatives. The Runcorn site, in the UK, is INEOS Chlor's largest site.

#### CHALLENGE

The plants at the INEOS Chlor Runcorn site vary in age, with several having been built in the 1960's and 70's. These assets had, until 10 years ago, been operated by panel instrumentation or in some cases, very early technology computer control systems. Each plant had its own control room and associated operators.

Even though the site is heavily integrated, each plant was run largely as a separate entity with limited communication and co-operation.

In 1997, it was clear that an investment strategy to re-instrument the plant control systems was required. Part of the long term strategy was to increase the site effectiveness and bring about efficiencies by installing a centralized control room. A major challenge for INEOS Chlor was to find a supplier that understood the need for a long term, developing relationship, rather than treating each project individually.

#### **SOLUTION**

Emerson Process Management was chosen by INEOS Chlor as its automation supplier because of the scalability and adaptability of the DeltaV<sup>™</sup> digital automation system and the knowledge and experience available from Emerson as an alliance partner. This alliance has remained in place for over 10 years and has proven to be a significant factor in the development and exploitation of automation systems at the Runcorn site.



"Our closeworking relationship with Emerson Process Management has been a key enabler in making the changeover to a centralized control room as smooth as possible,without any loss of production."

**Paul Young** Automation Manager, INEOS Chlor





The long term strategic plan was to convert the plant to Emerson's PlantWeb<sup>®</sup> digital plant architecture and integrate individual control rooms into a centralized location for the site. The centralized control room, which replaced the five traditional control rooms, has space available for further expansion. The site rationalization has enabled manning to be improved by over 20%.

Key to the success of the project has been to develop a single look and feel to the operating DCS environment. As individual plants have been converted to the DeltaV system and control moved to the centralized location, production rates have been driven up as a result of this and other improvement works. The contribution from the centralization project in terms of increased productivity and efficiency are calculated at around  $\in 1.3$  Million and other benefits include greater co-ordination and co-operation between the plants.

Emerson's DeltaV system provides the process control and the embedded AMS<sup>®</sup> Suite: Intelligent Device Manager software communicates with the intelligent field devices enabling configuration, calibration and diagnostic tests to be performed from a single workstation. The AMS Device Manager audit trail automatically maintains detailed records of device maintenance activities, including calibration records, confirming that field instruments and valves are properly installed and configured, contributing to increased plant reliability.

This major upgrade project has been executed without any unscheduled interruptions to operations, or extended shutdowns. This is seen as amajor success for the teamat INEOS Chlor since a project of this nature is normally assessed as attaching the highest level of risk to plant operation and start-up.

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**Emerson Process Management** 1100 W. Louis Henna Blvd., Bldg. 1 Round Rock, TX 78681-7430



www.EmersonProcess.com/DeltaV