

How a COMAH site addressed their aging workforce skills gap threat

Emerald Academy – A CMS Review to support aging workforce issues, competency development and business improvements

The challenge

Aging workforce skills gap issues posed a strategic threat to Emerald Kalama Chemical's business performance, staff development and succession planning.

Emerald Kalama Chemical Ltd, Widnes (now LANXESS) - a UK based upper-tier COMAH site, employing 95 people with a turnover of £48M, was faced with the need to fill a skills gap due to an aging workforce and the threat of loss of technical knowledge from senior level staff due to imminent retirements.

The solution

Emerald Kalama Chemical Ltd launched the Emerald Academy in 2019, to address skills gap issues and succession planning, within the operations group. Due to the success of the project, the initiative was rolled out across all levels of their Widnes team – creating a true 'workforce development programme'.

The Academy proved to be a catalyst to conduct a cross-workstream Competency Management Systems Review, as the business recognised their need to develop a robust Competence Management System across their entire workforce.

The Timeline

2018

VP of Manufacturing authorised the recruitment of five additional Shift Manufacturing Technicians (SMT's) to prepare the Widnes site for the loss of experienced SMT's through retirement between 2019 and 2022

2019

The Emerald Academy initiative was created - sponsored by the Site Director and supported by the Kalama Leadership Team (which included VP Manufacturing and VP Human Resources)

2020

Emerald Kalama engages Cogent Skills to conduct a Competency Management System strategic review - to inform the Academy's key competency workforce requirements.

2021

Achieved 10 key, business critical performance improvement indicators. CIA Skills Award 2021 win (sponsored by Cogent Skills) - the Emerald Academy is recognised by industry as an employer who has done the most to contribute to the acquisition of workforce skills, through an active skills development work programme.

“ One of the challenges for any upper tier COMAH establishment is to demonstrate that employees who operate major accident hazard plant are competent to do so. Cogent Skills and The Emerald Academy work has been fundamental to providing the ideal structure and foundation in terms of defining the required standards to demonstrate we are in control of those hazards. These standards are the key to assess the employee capability against what is required. As the assessment work progresses then in turn the level of standards will be raised, competence assurance more visible and it will contribute further to the site preventing and mitigating accidents and incidents. ”

Ste Ockleshaw

SHE Manager, Emerald Kalama Chemical

As a key member of the local Science Industry Partnership for Liverpool, Emerald Kalama Chemical Ltd took advantage of the support available from Cogent Skills, to review their Competence Management System – enabling them to benchmark their performance and strategy for workforce development against industry best practice.

Cogent Skills Consultancy was engaged in 2020, to conduct a full competence management review across all site workstreams (including Research and Development, Maintenance, SHEQ, Engineering and Logistics). This CMS Review included a competency matrix scoring system, to identify the missing competency skills and recommendations highlighted areas for improvement, along with the further opportunity to establish a more detailed benchmark against the COMAH Competent Authority’s 15 CMS Principles.

The review project identified:

- A full competency skills gap analysis
- Where good practice was being applied
- Benchmarking of their existing measures aligned to the Cogent Skills and COMAH Competent Authority good practice guidelines and industry standards.

A CMS Review Report was developed for all departments and staff levels, including the senior management team - to ensure an ongoing workforce development and competence programme.

The CMS Review Report and Action Plan, developed by internal Academy staff with ongoing support from Cogent, has helped to:

- Inform the Emerald Academy planning
- Create a knowledge and competency-based modelling system across the UK business

- Develop a full suite of task books – aligned to industry standards
- Improve their award-winning workforce development programme
- Deliver significant business performance improvements

The success of the academy received industry recognition in June 2021, by being voted as the winning entry in the Chemical Industries Association awards - Skills Award category.

Emerald Kalama Chemical Ltd, Widnes (now LANXESS) continues to work with Cogent Skills to develop their Process Safety Management Leadership principles via training course content, which is recognised by the UK's COMAH Competent Authority.

“The workforce training & competency programme developed by the Widnes site through its foundation of the Emerald Academy is the best example of such a scheme I have seen in over 40 years in the industry. The quality and diversity of the training materials is excellent allowing a thorough understanding of the key learning points and job competencies at all levels of the organisation. This training not only sets up our employees for immediate success but ongoing success for many years to come. ”

Mike Mannino

VP Human Resources, Emerald Kalama Chemical

The impact

The roll out of the Emerald Academy initiative across all UK site departments, resulted in the following significant achievements for Emerald Kalama Chemical, Widnes:

- **Award win** – recognised by the Chemical Industries Association as the winner of the 2021 Skills Award category (sponsored by Cogent Skills)
- **EBITDA* improvement** from £3.5M to £13.3M.
- **Improved business efficiencies.** Reducing overtime costs by having more trained operators per process area.
- **Improved COMAH site operations.** Cross COMAH site clarity about factors that affect safety, quality and plant reliability and the operator's role in running plants to the approved operating instructions.
- **Improved communications.** Due to a Prosci ADKAR* change management initiative for internal acceptance - achieved through a continuous dialogue with Union representatives, Shift Managers and the employees.
- **Improved succession planning** - Captured retirement knowledge from 29% of the total shift service years -from experienced operators
- **Increased staff morale** - Across multiple shift operations, leading to increased operator interest and retention and improvement of their work – life balance

- **KPI's improved in 2019** – across many departments
- **Raised competence, compliance and operational skill levels** - Across the UK business.
- **Reduced strategic threat** - to business performance and staff development and succession planning

* *EBITDA earnings before interest, taxes, depreciation, and amortization*

* *ADKAR Awareness, Desire, Knowledge, Ability, Reinforcement*

“ Having set up the Emerald Academy to address issues of retirements, succession planning and loss of skills, I was conscious of similar issues in other departments that would become a reality in a few years from now. By engaging with Cogent Skills Consultancy to conduct a full competence management review across all site work streams I knew we would gain a best practice benchmark to work with. Very quickly, it became apparent that within operations, the Emerald Academy was delivering industry best practice but in other areas, there was more to do. The lessons learned from the Academy and the completion of the benchmark against the COMAH Competent Authority's 15 CMS Principles enabled me to formulate a framework for 'workforce development' that would ensure ongoing competence of all employees became embedded in induction and personal development processes. ”

Graham Smith

Site Director, Emerald Kalama Chemical

Used capabilities

- **Competence Management Systems Consultancy**

How Cogent Skills is different

- Main Skills Body for Competence - **As listed on UK's COMAH Competent Authority website**
- Owner of the published **Competency Management System guidelines**.
- Custodian of the **Process Safety Management industry training standards** (recognised by the UK's COMAH Competent Authority)

More information about The Emerald Academy

The Academy supported new recruits with updated, higher technical content training via delivery techniques and training materials which were designed to capture all 'knowledge and know how' elements. The training programme content was designed to support all key areas on site- such as COMAH scenarios, emergency response, fire systems operations, food safety procedures and stock control procedures, along with of Root Cause Analysis training - based on the A3 reporting template which is widely

used in the automotive industry.

Delivery included:

- 'How to' manuals
- Talking heads films
- Task books
- Videos

The suite of training materials covered not only the operation of the chemical processes but also included learning points such as COMAH scenarios, plant design, equipment operation and process control systems. This provides clear understanding of the importance of factors that affect safety, quality and plant reliability and the operator's role in running plants to the approved operating instructions.

Alongside the Academy, the Management team implemented a change management initiative for internal communications and staff acceptance – focused on ensuring that resistance due to a lack of awareness or knowledge was identified and mitigated creating a desire for change.