NOVA CHEMICALS

STREAMLINING TRACKING AND REPORTING TO SUPPORT COMPLIANCE

QUICK FACTS

Industry
Chemicals

Revenue
US$7.3 billion

Employees
2,500

Headquarters
Calgary, Alberta, Canada

Web Site
www.novachemicals.com

SAP® Solution and Services
SAP® Environment, Health, and Safety Management application

Implementation Partner
TechniData AG (subsequently acquired by SAP)

NOVA Chemicals Corporation manufactures polyethylene, a plastic used in food and beverage containers. To improve emissions calculations and reporting, it implemented the SAP® Environment, Health, and Safety Management application. By pulling emissions data into a single application for analysis and regulatory reporting, the company has improved cycle times and the reliability of emissions data and enhanced the ability to meet regulatory requirements.

Key Challenges

- Increase accuracy of emissions tracking and reporting
- Standardize emissions measures and calculations
- Simplify handling of complex calculations and managing data
- Automate input of emissions data
- Comply with continuously changing reporting regulations worldwide

Why SAP Was Selected

- Leading software functionality compared with other vendors
- Opportunity to influence functionality requirements
- Less maintenance required than home-grown application
- Integrated solution that leverages existing investment in SAP® software

Implementation Best Practices

- Sponsored by executive-level management
- Participated in pilot program and prepared template to streamline implementation
- Trained core team to perform rollout
- Dedicated a full-time environmental contractor to support decision making and configuration

Low Total Cost of Ownership

- Increased efficiency in data management, maintenance, and support by capitalizing on existing internal SAP infrastructure and skills
- Improved efficiency by retiring large, complex spreadsheets
- Reduced complexity and minimized IT and maintenance costs
- Enabled the construction of interfaces to data historians and other data sources

Financial and Strategic Benefits

- Dramatically improved cycle times and reporting frequency to support more effective decision making and emissions-credit management
- Achieved payback in less than 2 years by reducing resource usage and improving ability to manage greenhouse-gas emissions credits
- Reduced audit fees and time by establishing an audit trail for emissions-related reports
- Improved ability to document and manage changes in input data and equations
- Enhanced ability to meet continuously changing regulatory requirements

Operational Benefits

- Expanded calculations to include single pieces of equipment
- Improved equation consistency, methodology, and documentation
- Transitioned to monthly reports from a single annual report requiring 5 months duration to generate
- Improved business processes and reduced calculation cycle times, enabling the company to reduce resources dedicated to data management by approximately 5 FTEs per year

NOVA Chemicals®

"We have completely transformed our data management practices and have established sustainable systems and procedures to continuously improve our environmental performance."

Mark Lesky, Director of Responsible Care, NOVA Chemicals Corporation

www.sap.com/contactsap

Committing to Responsible Care

NOVA Chemicals Corporation is a founding member of Responsible Care, a voluntary global initiative under which companies work to improve their environmental performance. As part of its commitment to this initiative, NOVA Chemicals wanted to improve compliance efforts at its 10 sites in Alberta and Ontario, Canada, and at its U.S. locations. The company manufactures and distributes polyethylene, a plastic used to manufacture food and beverage containers. Each manufacturing location had a different approach to recording and calculating emissions data. "We wanted to standardize and automate data entry and emissions calculations to improve data accuracy and streamline compliance reporting," says Mark Lesky, NOVA Chemicals' Director of Responsible Care.

Leveraging Its Investment

NOVA Chemicals considered developing its own software or adopting a best-of-breed application but selected the SAP® Environment, Health, and Safety Management (SAP EHS Management) application. "By adopting SAP EHS Management, NOVA Chemicals would be able to participate as an early adopter and influence the functionality requirements for the software," Lesky explains. The company liked that it could establish an integrated environment, thereby leveraging its investment in the SAP ERP application.

With full executive-level support, NOVA Chemicals worked on the implementation with TechniData AG, the SAP software development partner, which was subsequently acquired by SAP. "We wanted to learn as much as we could about the software so we could self-implement," Lesky states. NOVA Chemicals created a small project team; it ran a pilot at one plant and then created a template to streamline the rollout at subsequent locations. "There are thousands of pieces of information that need to be organized. We established our naming conventions and dissected and developed over 500 equations," Lesky adds. The company engaged a full-time environmental contractor to help sort out the many decisions.

Operating More Profitably

NOVA Chemicals can now pull emissions data into a single solution from automated data feeds and conduct complex analyses for emissions reports. "Now that we have the tools to measure emissions by individual pieces of equipment, we are generating over 100,000 emissions records annually," Lesky states. "Once we recalculated our emissions data, we realized that our historical data underestimated our emissions and our sites did not fully account for the greenhouse gas emission reductions that were achieved during the past few years." Audit time and effort have also been reduced, resulting in further cost savings.

Working More Efficiently

For NOVA Chemicals' core team of software users, improved processes have meant a world of difference. "We retired our complex spreadsheets and labor-intensive data reporting and have automated monthly reports," Lesky explains. The company can complete calculations in a fraction of the time with an overall reduction of five to seven full-time equivalents. These resources can now be redeployed to other high-value tasks. Remarkably, its improved cycle times, substantially improved ability to manage the purchase and sale of emissions credits, and lower resource usage have enabled NOVA Chemicals to achieve project payback in less than two years.

"As we refine our use of our SAP software, we believe there will be even greater opportunity to derive value from our investment to support our commitment to Responsible Care," Lesky adds.

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