Dow Chemical

Dow's Environmental Reporting Project Streamlines Emissions Management, Reduces Cost $2 Million

The Dow Chemical Company is one of the world's leading producers of plastics, chemicals, and agricultural products, with 46,000 employees operating in more than 175 countries. Dow is also widely recognized as a model of corporate citizenship and best practices in business sustainability. In 2007, the company celebrated the success of its landmark Environmental Reporting Project – the largest emissions management program of its kind and a powerful example of results that can be achieved by expert managers who unify and streamline information processes enterprise-wide using Sphera software.

The Dow Environmental Reporting Project, driven by the need for regulatory reporting compliance and technology replacement, was chartered in 2004 to provide the best cost-quality-delivery multi-media environmental reporting solution to hundreds of facilities across the United States. In the past, Dow used multiple legacy systems for regulatory reporting, but those systems were no longer sustainable, varied between sites, and required duplicate resources for support.

The project team first engaged stakeholders, received leadership endorsement, and then proceeded with the selection of a unified software platform. The process involved internal review and third-party validation of several commercially available software solutions. Ultimately, they chose *Sphera Essential Suite*™ -- which had already been used successfully at selected Dow facilities since 1999.

Team of Experts Drives Successful Launch

A joint Dow EHS, Dow IS, CH2M Hill and Sphera team was assembled to implement the system company-wide due to the breadth and complexity of the project. The team began by conducting a due diligence review of Dow legacy systems with input from the sites. Their review showed the value of interfacing *Sphera Essential Suite*™ with existing corporate enterprise systems in order to automate data capture and enable interoperability between systems. The project team designed and built interfaces, templates, uploaders, ad hoc query tools and reports to meet these needs.

New environmental reporting work processes defined roles and responsibilities consistently across U.S. sites and created a centralized support structure. The single instance of a common *Sphera Essential Suite* database eliminated the need for repetitive

CHALLENGE
- Replace multiple legacy environmental reporting systems which were no longer sustainable
- Develop and standardize best practices with a single robust reporting system across 200 U.S. facilities
- Promote interoperability between existing corporate enterprise systems
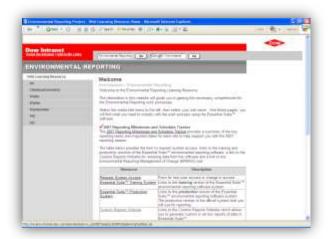
SOLUTION
Environmental Performance
- Air Emissions
- Chemical Inventory
- Waste Management
- Water Discharge

RESULTS
- Preserved Dow license to operate in 200 facilities at 35 manufacturing sites
- Eliminated over $2 Million in redundant legacy reporting systems
- Dow's single system has the potential to save an additional $2 Million over time
- Improved reporting efficiency and accuracy by allowing all the US sites to use a common reporting process
- Enhanced sustainability thru one common work process, interoperability with existing corporate systems

support roles and reduced structural costs at the multiple sites. Sustainable work processes, training documentation and videos were developed to make information easily accessible on Dow's intranet. Thirty classes were held and over 600 new software users across the company were quickly trained.

The Dow Environmental Reporting Project's scope, schedule and budget were tied to the legacy system's decommissioning schedule. The compressed timeline

required extraordinary efforts by the project and site teams but quality was carefully assured as the new system was rolled out to 200 Dow U.S. production facilities. The project established common environmental reporting work processes, standardization of roles and responsibilities, and a standard enterprise configuration – all from one instance of the *Sphera Essential Suite* database.

New Efficiencies Produce Big Savings

Dow's innovative new work process and unified software platform eliminated over $2 million in redundant legacy reporting systems and leveraged existing enterprise information systems through interoperability with *Sphera Essential Suite* across all implemented sites. The new platform improves reporting efficiency and accuracy, and allows all of the company's U.S. sites to use a common reporting process. Dow's single system has the potential to save an additional $2 million over time on elimination of redundant work processes and supporting resources.

The project delivered a standardized solution for the U.S. sites through the implementation of the *Sphera Essential Suite*™ inventory, waste, air, material and water modules on time and on budget. Dow's

Environmental Reporting Project work processes, procedures, and training are housed and accessible on a single web site. Standard business rules, work processes, material properties, calculations and tools allows for consistency and standardization of multi-media reporting results across the sites and businesses.

To safeguard Dow's investment, a centralized support organization has been institutionalized. Leveraging centralized resources eliminates the need for a support organization at each site. Use of the global Management of Change process across all reporting sites ensures that the standard configuration is maintained and adapted consistently. A control plan has been put in place to further ensure compliance with the system standardization and work processes.

Additional benefits of Dow's Environmental Reporting Project and *Sphera Essential Suite* include:

- One-time data entry via system integration

- Improved QA/QC ability prior to submission

- Standardized roles and responsibilities (i.e. easier to move from plant to plant, site to site)

- Workload is spread out and balanced over the reporting period

- Can view "up to date" data throughout the reporting period

- Data is used multiple times for many reports over an extended time period

- Data errors are identified and corrected early

- Data availability for business decisions

The Environmental Reporting Project is just one example of Dow's EHS accomplishments. The company has often been honored for outstanding corporate citizenship and ranked near the top of the 2007 Dow Jones Sustainability World Index.

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