

8th Annual Chemical Management Services Workshop
CMS: The Fundamentals and the Future
Arlington, Texas
October 13-15, 2004

Summary

The 8th Annual Chemical Management Services Workshop, CMS: The Fundamentals and the Future, brought together 81 representatives from 49 different organizations to examine CMS from a wide variety of perspectives and industries. Highlights of the morning included case studies from Raytheon/HaasTCM and General Motors, Mexico/PPG, and roundtable discussions featuring Delta Airlines, ComAir, Bell Helicopter, and Stanford Linear Accelerator. The afternoon breakout sessions provided an opportunity to examine various facets of CMS in depth, such as international trends, expanding the service concept, CMS contract structures, and CMS in the smaller enterprise. Additionally, this year's workshop included a half-day session for CMS suppliers which focused on interfacing with Tier IIs, Resource Management, and EPA tools for CMS providers and customers.

Companies and Organizations in Attendance Included:

American Airlines, Applied Technology, AVChem, Bell Helicopter, Boeing Company, Castrol/BP, Chemical Strategies Partnership, Chemico Systems, ComAir, DaimlerChrysler Corporation, Dana Corporation, Dartmouth College, Delta Airlines, FirstEnergy, Fisher Scientific Company, General Motors (U.S. and Mexico), Graco Supply Company, Haas TCM, Henkel Chemical Management, Houghton International, IGC Commerce, Illinois State University, Illinois Waste Management and Resource Center, Lockheed Martin, MarketEdge, Metaldyne, Morrison and Foerster LLC, Northern Michigan University, PPG Industries, Praxair Inc., Quaker Chemical Corporation, Raytheon Company, Rockwell Collins, Shell Services USA, Solution Recovery Services, Stanford Linear Accelerator Center, Texas Commission on Environmental Quality, United Postal Service, U.S. EPA, United Technologies Corporation, University of California at Merced, The University of Texas System, University of Texas at Arlington, Waste Management, Weyerhaeuser Company.

Sponsors

The workshop was sponsored by Chemical Strategies Partnership and the CMS Forum, which includes the following company members:

Founding Member: Haas TCM

Other Members: AVChem, Castrol Industrial Americas, Chemico Systems, DaimlerChrysler Corporation, Dana Corporation, Delta Airlines, Dolphin Software, Fisher Scientific, General Motors, Henkel Chemical Management, Houghton Corporation, Hyundai Motor Company, Illinois Waste Management and Research Center, Illinois State University, Interface LLC, PPG Industries Inc., Quaker

Chemical Corporation, Raytheon Company, Rockwell Collins, Seagate Technology, Shell Services USA, the Society of Tribologists and Lubrication Engineers, Solution Recovery Services, and United Technologies Corporation.

Thursday, October 14, 2004

Welcome and Introductory Remarks

Jill Kauffman Johnson, *Executive Director, Chemical Strategies Partnership*

Jill opened the workshop and presented the results of the recently released *CMS Industry Report 2004*. She described the findings, including market trends and growth. Up from five sectors in 2000, CMS is now utilized in 11 sectors with penetration in several sectors above 30%. Jill attributed this growth to increased customer awareness of CMS and a maturity in the CMS provider community to serve more diverse markets. Interestingly, CMS providers now expect CMS to grow most rapidly within the United States, already the biggest CMS market, as opposed to internationally. In looking to the future, some barriers to the growth of the CMS model include customer focus on narrow solutions to improving chemical management (e.g., leveraged purchasing, purchasing an information management system) and a lack of visibility for the total cost of chemical use. CSP is a non-profit organization working to overcome these barriers through the promotion of the environmental and economic benefits of CMS. CSP's mission is to reduce chemical use, waste, risks, and cost through the transformation of the chemical supply chain by redefining the way chemicals are used and sold.

Case Studies of CMS Programs

Two Case Studies were presented, Raytheon Company and General Motors.

Case Study: Raytheon Company

Kristi Guiou, *NSC, Raytheon Company*

Larry Holcombe, *Account Manager, HaasTCM*

Raytheon Company launched its CMS program in 1999 to reduce its chemical lifecycle costs and improve data management for its hazardous materials. The program's scope of services includes procurement, inventory management, distribution, hazardous waste management, data management, and technical support. Raytheon uses four different levels of chemical management services from its CMS supplier, Haas TCM, on a site-by-site level.

The North Texas Region averages 650 receipts and 1100 deliveries per month, and includes 13 different Raytheon locations, most of which utilize the highest level of service. The highest level of service covers the entire chemical lifecycle for all of its chemicals; sourcing, procurement, order tracking and expediting, just-in-time delivery, MSDS electronic management, QA inspection/testing/shelf life management, labeling/bar coding and inventory control and management, plus Point-Of-Use (POU) services for chemical delivery and waste pickups.

Over the course of the program, Raytheon and Haas TCM have achieved numerous process efficiency improvements, including reclaiming precious metals from scrap and substituting high temperature fluids and semiconductor stripper solution. Additionally, the program has garnered numerous structural savings, including reduced chemical warehouse space, reduced warehouse personnel, fewer inventory carrying costs, and reduced inventory spoilage.

General Motors: CMS at GM's Silao, Mexico Plant

Arnulfo Berlanga, *Environmental Manager, General Motors Silao*
Francisco Herrera, *Chemical Manager Silao Plant, PPG Industries*

The General Motors (GM) plant in Silao, Mexico is a 3,434,714 square foot engine plant that began activities in 1994. The Silao plant used CMS from the beginning of its operations as General Motors had adopted CMS on a corporate-wide level previous to 1994. PPG Industries, GM's CMS provider, has been with the Silao plant from its inception, supplying process management and a limited number of chemical products. They expanded their services to include full CMS in 2001.

The program scope includes the Silao body shop, assembly plant, stamping plant, plant engineering, paint shop, engine plant, and others. The program has achieved numerous accomplishments, including paint sludge humidity reduction from 60% to 45%, warehouse space optimization, oil water treatment costs reduced from \$16.00 to \$2.00 per cubic meter, and standardized and expanded safety regulations, among other achievements. Cost savings in 2002 were 23% of the total contract, and 18% of the contract in 2003. The proposal contract for 2004-2006 includes savings between 6-9% per year.

PPG is the Tier I supplier and works with a handful of Tier II suppliers, some of whom are competitor suppliers. The program is maintained based on the achievements PPG continues to make through improving process efficiency, providing cost savings, and maximizing return on investment for GM.

Roundtable Discussion on CMS

Conducting the Internal Sell

Delta Airlines, its subsidiary ComAir, Bell Helicopter, and the Stanford Linear Accelerator Center took part in a roundtable discussion on how to effectively sell CMS within a company, and the challenges they faced while doing so.

Moderator: Tom Bierma, Professor of Environmental Health, Illinois State University

Panelists: Butch Byers, *EH&S, Stanford Linear Accelerator Center*

Marc Cummins, Contract Manager, Bell Helicopter

Pam Drenner, *Environmental Services Manager, Delta Airlines*

Noel Pacheco, *Environmental Manager, ComAir*

Delta Airlines/ComAir

Pam Drenner, *Delta Airlines*

Noel Pacheco, *ComAir*

Delta Airlines began its CMS program largely due to compliance with an EPA consent order. Delta's CMS Provider is Interface LLC. ComAir was a recently acquired subsidiary of Delta and began its CMS program primarily because it was Delta-backed. ComAir's CMS provider is PPG. Both Delta and ComAir created comprehensive plans for executing an internal sell of the CMS concept. Delta's internal sell focused on three primary audiences, top-level leaders, middle management, and end users, each of which had different selling points. When approaching top-level leaders, the EHS department stressed compliance, public relations, and cost savings. For middle management, they highlighted a focus on core competency (chemicals were not considered a core competency). For end users, they discussed improved efficiency and better service. For each audience, they created separate presentations and arranged repeated meetings to ensure the full buy-in of all stakeholders. ComAir used a similar strategy, but focused primarily on Purchasing, Maintenance, warehouse personnel, Hubs, and end-users. Post-implementation, Delta and ComAir encountered many of the same challenges with the need to continuously sell the merits of the CMS program. Challenges included the Purchasing department taking control of the program, the evolution of the company's IT systems, and changes in buying behavior. Though all parties were eventually convinced of the merit of a CMS program, maintaining strong support for CMS is an ongoing process and has been especially important now that Delta and ComAir are re-bidding their CMS contracts.

Stanford Linear Accelerator Center (SLAC)

Butch Byers, *EH&S, Stanford Linear Accelerator Center*

SLAC is a DOE particle physics research center affiliated with Stanford University. As an academic research facility, its culture is very different from the culture of corporate America. It is highly decentralized with local autonomy, there is a resistance to standardization and centralization, and its leadership is fragmented, without top-down direction. The Laboratory and Division Directors are strongly supportive of the program, as are the ES&H and Computing departments. Less supportive are Purchasing and the Waste Management division of ES&H. Due to the academic, rather than corporate, nature of the facility, implementation of the CMS program has taken significantly longer (21 months) than implementation at a typical corporate site (6-8 months). SLAC's CMS provider is HaasTCM. SLAC realized in implementing a program, buy-in from the people who are at the nexus of decision-making is important, as is getting on the good side of your ERP staff, because they are the only ones who will know what data is retrievable and usable. The sell must be ongoing, even after the program is up and running.

Bell Helicopter

Marc Cummins, *Contract Manager, Bell Helicopter*

Bell Helicopter, a subsidiary of Textron, Inc., has 49,000 employees in 40 countries. Its CMS provider, AVChem, is a three-year old company providing CMS to the aerospace

industry. Bell began its CMS program in mid-2003, with the goal of improving its environmental reporting and risk management, establishing continuity of supply, and reducing costs. To date, they have especially focused on communications with their shop floor employees and have achieved a high level of buy-in with that group. Their primary challenges have been getting good data, the wide geographic dispersion of their sites, and managing supplier migration. Bell has used focused planning sessions to identify new categories of services it would like to undertake with its CMS program and the necessary communications strategies to sell that expansion to the crucial stakeholders.

Breakout Sessions

Getting Started with a CMS Program

Chris Dawson, Commodity Manager, Dana Corporation

Gary George, Advanced Manufacturing Engineering, DaimlerChrysler Corporation

Brian Ross, Commodity Manager, United Technologies Corporation

Creating Value in a Mature CMS Program

Tim Lindsey, Manager, Pollution Prevention Program, WMRC

Steve Marshall, Operations Director, Henkel Chemical Management

Involving Minority-Owned Businesses in the Supply Base

Leon Richardson, President, Chemico Systems

Rex Curtis, VP Global Automotive Industry Leader, Quaker Chemical

Warren Underwood, Program Manager, Chemicals Manager, General Motors

International Expansion in Europe and Asia

Thad Fortin, CEO, Haas TCM

Eric Rogers, Director- Services Unit, Castrol BP

Tom Votta, Deputy Director, Chemical Strategies Partnership

CMS in Research Labs and the University Context

Moderator: Priscilla Halloran, US EPA Office of Solid Waste

Butch Byers, EH&S, Stanford Linear Accelerator Center

Michael Cimis, Chemical Hygiene Officer, Dartmouth College

Brad Samuelson, Associate Manager, EH&S, University of California, Merced

Structuring a Successful CMS Contract

Anders Stenstedt, Partner, Morrison and Foerster LLC

Mike Knoblock, Worldwide Facilities Group, General Motors