

Chemical Management Case Study for Bell Helicopter Textron Inc.

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Bell Helicopter is an industry-leading producer of commercial and military, manned and unmanned vertical lift aircraft and the pioneer of the revolutionary tilt rotor aircraft. Globally recognized for world-class customer service, innovation and superior quality, Bell's global workforce serves customers flying Bell aircraft in more than 120 countries.

Bell Facilities

Bell Headquarters & Fabrication Centers (Fort Worth)

Bell FW Headquarters



Composite COE



**X^{bell}
VORX**



ROR & Logistics Facility



Customer Center



Drive Systems COE



Aircraft Assembly Centers

Amarillo, TX

Military Aircraft Assembly



Mirabel, Canada

Commercial Assembly



Modification & Overhaul Centers

Ozark, Alabama

Bell Aero US Helicopter



Bristol, TN

Edwards & Associates



11,000 team members and 5+ million square feet

Scope of Bell CMS Program

- **JIT delivery of over 1,100 chemicals**
- **Off-site inventory maintenance**
- **Database of chemical usage for environmental reporting**
- **Maintenance of chemical solutions on coating and plating lines**
- **Cradle to grave chemical and waste management at Amarillo**

Key Drivers to Initiate CMS Program

- Risk of inventory on Bell property
- Total cost of chemicals ownership
- Excessive inventories, expired shelf life and lack of usage records
- Potential for overall cost savings in addition to the chemical commodity effort



Feedback From Potential Chemical Supplier

We have concerns over certain aspects of the approach Textron plans for its chemicals management program. I suggest that you may want to confer with certain persons at another aerospace/defense company because they have first-hand experience with a similar approach they took three years ago. Suggest that the Chemical Strategies Partnership might also be a good resource, and I agree particularly for help with determining current baseline costs. I know very well the CSP Executive Director and she would/could provide much help. Her name is Jill Kaufman-Johnson.

First Aha! – May 2, 2002 in New Orleans

How Did We Get Started?



- **Failed attempt at CMS 2001**
- **Capital Cost for Chemical Storage forced second look**
- **Six Sigma Approach and Cross-functional team succeeded in June 2003**
 - **Strong team with right players**
 - **Rigorous review of total cost of chemical ownership**
 - **Business case made**

Benchmarking of CMS Providers

- **Short-listed Providers, then Benchmarked**
 - Boeing in San Antonio
 - Texas Instruments in Dallas
 - GKN in St. Louis

Second Aha! – October 2002 – IT WORKS!

Benefits to Date

- Less chemicals stored on site
- Improved shelf life control reducing waste
- Reduced employee exposure to chemicals
- Less Bell manpower managing chemicals
- Improved record keeping for air emissions
- One time cost reduction/avoidance ~ \$900K
- Inventory Reduction > \$900K first year
- Annual savings of ~ 25%

What Were Key Challenges?

- **Changing focus from chemical purchasing to chemical management**
- **Making the business case with all stakeholders**
- **Getting the right vendor and negotiating contract**
- **Implementation**
- **Maintaining the gains**

What Does The Future Hold?

- **Add Maintenance Chemicals to the program**
- **Identify “rogue” chemicals**
- **Expand service to Customer Support and Repair Center**
- **Explore transitioning all hazardous waste management to CMS vendor**

What Advice Do You Have For Those Considering Programs or With Programs in Place?

- **Gain management and stakeholder support**
- **Make a business case**
- **Benchmark**
- **Partner with a reputable vendor**
- **Be realistic on implementation schedule**
- **Be prepared for resistance and bumps in the road**