

# **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<sup>bell</sup>  
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**