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# **Chemical and Resource Management: Separate Yet Similar Approach**

CMS Conference  
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# Discussion Agenda

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- Raytheon Sustainability Goals
- Two Supporting Programs
  - Raytheon Chemical Management Services (CMS)
  - Raytheon Resource Management (RM)
- Metrics: The Backbone of both programs
- Differences and Similarities
- Stakeholder and Supplier Relationships
- Wrap-up

# Raytheon's Sustainability Goals

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1. Reduce landfill and incinerated solid waste by 25% by 2013 
2. Reduce water consumption by 10% by 2013
3. Reduce absolute greenhouse gas emissions 10% by 2015 
4. Achieve LEED certification for newly constructed buildings and all modifications greater than 50,000 square feet in Raytheon-owned buildings 
5. Evaluate and improve key supplier EHS performance 

# Raytheon CMS Program Background

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- Initiated CMP program in 1998
  - Goal to reduce the cost & usage of chemicals
  - Key challenge was to structure incentives for supplier to help us
- Participation by over 45 sites across US
  - Manage over 20,000 chemicals and 1,000 waste profiles
- Multiple commodity approach
  - Chemicals, industrial gases, hazardous waste
  - 95% of Raytheon U.S. chemical spend
  - Contract includes supplier gain share incentives
  - Leveraged cost savings
  - Efficiency improvements
- Renewed program contract since inception
  - Consistently challenged to add incremental value

# Chemical Management Commodity

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- **Raytheon Chemical Categories**

- Solvents
- Adhesives
- Acids and Caustics
- Cleaning agents
- Janitorial supplies
- Waste Water Treatment Chemistry
- Paints
- Reagent Chemicals (R&D work)
- Cylinder and Bulk Gases
- Refrigerants
- Prepregs / Frozen Materials
- Bulk Fuels (Jet Fuels) / Diesel / Propane

- **Out of scope:**

- Radioactive sources (highly regulated market, highly specialized)
- Spray nozzles for ionized air

# What is Resource Management (RM)?

- RM is a strategic alternative to traditional waste contracting and recycling
- RM contracts emphasize/reward resource efficiency throughout material lifecycle rather than disposal
  - Prevention, reuse, recycling, composting
  - RM contractor compensation is tied to quality of service provided rather than the quantity of waste disposed



## Align Contractor and Customer Incentives

### Traditional Disposal Contracts *Conflicting Incentives*

CONTRACTOR

CUSTOMER



Wants service  
increase

Wants service  
decrease

### RM Contract *Aligned Incentives*

CONTRACTOR

CUSTOMER



Wants service  
increase

Wants service  
increase

# RM Background

- **Initiated Program in 2006**
  - Service includes: basic container service, hauling, and processing/marketing/disposal (which may be subcontracted), in addition to value-added services that improve Raytheon's resource efficiency (e.g. waste reduction, reuse, increased recycling) beyond traditional waste and recycling hauling. Supplier provides improved reporting, billing, waste tracking and analytical services for waste disposal and recycling.
- **Number of sites participating in RM program:**
  - Northeast: 10
- **Multiple Waste Reduction Category Approach**
  - Construction and Demolition, Commingled, Document Destruction, Mixed Fiber, Metal Reclamation, Organics (Compost), Trash, Wood
  - Recycling programs
  - Equipment
    - **Efficient**
    - **Right size properly for site specific waste collection**
- **Renewal Northeast program 2010**
  - **Program Expansion to include:**
    - **Metal Reclamation and electronic scrap**
    - **Recycling of classified hardware (future)**

**Goals : 5% Waste Reduction and Cost Savings Annually**



# Resource Management Teams

- Each Raytheon site has designated RM representative
- Cross functional team membership: EHS, Facilities, Property Control and Supplier Engagement
- Monthly conference calls / Team meetings
- Promotes uniformity in programs
- Share problems & solutions
- Share communications
- Regional Earth Day events

Team Commitment is critical to program success

# CM and RM Services Compared

## Chemical Management Program

- Sourcing
- Procurement
- Order Tracking
- Expediting
- Just in Time Delivery
- MSDS Electronic Management
- Environmental Control reporting for compliance reporting to government agencies
  - Approval cycle for new chemicals
- QA Inspection / Testing / Shelf-life Management
- Labeling / Bar Coding
- Inventory Control Management
- Point of Use (POU) Service for chemical delivery and waste pick-ups

## Resource Management

- Waste Category Collection and Pick-Up:
  - Construction and Demolition (C&D)
  - Commingled
  - Document Destruction
  - Mixed Fiber
  - Metal Reclamation
  - Organics (Compost)
  - Trash – no land-fill solutions
  - Wood
- Equipment to support site RM requirements
- Supplier Site Visits and Reports
- Supplier developed RM Training Program for site employees:
  - Trades and general education

# CM and RM Programs Compared

## Chemical Management Program

- Enterprise wide solution
- Mature Program – over 10 years
- Stakeholders: Operations /EHS/ SCM
- Current Agreement includes:
  - Hazardous Waste Removal Program thru Clean Harbors
- Mature Metrics Program

## Resource Management

- Regional approach
- Evolving Program – 5 Years (NE)
  - Expansion of NE Program to include:
    - Metal Reclamation
    - Classified Electronic Hardware recycling
- Stakeholders: EHS / Facilities / SCM
  - New: Security, Property Control, Program Management
- Established Metrics

# CMS and RM Program Advocate: EHS

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- Environmental Reporting – key for CMS program
  - tcMIS: MSDS database – single repository of information
  - Greenhouse Gas Reports
  - Adhoc reporting capabilities
  - Simple enterprise queries on any chemical constituent
- Waste Diversion / Reduction - key for RM Program
  - Goal alignment with Enterprise Goals
  - Metrics reports

# Program Opportunities

## Chemical Management

- Partner with vendor to offer the program to our small suppliers
- Continue refinement of “canned” reports to enhance the value of the database (GHG, chromium, HAPs, VOCs etc)

## Resource Management

- Mirror NE RM program across the Enterprise
- Alignment with RTN Sustainability Goals
- Regional “culture impediments” – Different State approach to RM
  - Massachusetts support – state supported programs. Landfill ban promotes recycling

# Chemical Management Services Benefits

- Unique incentives of the contract encourage the supplier to act in your best interest for mutual benefit
  - Increased chemical use efficiencies and cost sharing of solutions
- Central database is invaluable repository of information
  - MSDS's
  - Customized reports for SARA 313, GHG's, chromium, beryllium etc.
  - Reporting capabilities allow for frequent status checks on chemical consumption by chemical, business, site
  - Overstock can be shared across the enterprise
  - Order "flagging" facilitates discussion with user groups
    - Educates user groups on chemical's properties (ie. global warming)
    - Discussion may result is reduced order volume or substitution with an alternative chemical / substance

**Database Reveals Real Time Chemical Usage Profile / Trends**

# Resource Management Benefits

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- One stop shopping for waste management services
  - Active customer -supplier partnership to identify and use only approved downstream contractors / processors
- Supplier learns the needs and wants of your business
  - Business philosophy clarity
  - Engage supplier services to support Company philosophy / goals
- The relationship is symbiotic for both parties
  - New and innovative solutions can be shared with other supplier customers

**Striving Together Toward a Common Set of Goals**

# Conclusions

- Key to success is changing the relationship with the supplier to a “true business partner”
  - Supplier and Customer Engagement: promote program and reach goals
  - Both sides must be open to innovative approaches / solutions
  - It’s a win / win
- Benefits are numerous
  - Reduced costs and improved operational efficiencies
  - Database of useful performance metrics help drive continuous improvement and identify new opportunities



**Constant Communication is the Key to Success**



# Questions

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