

US EPA ARCHIVE DOCUMENT



Servicizing Industrial Chemical Use with Chemical Management

Chemico  **Mays**

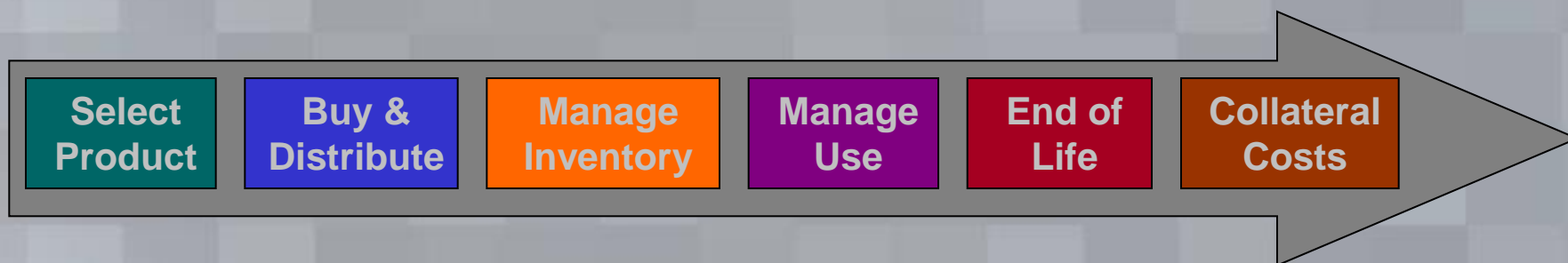
What is Chemical Management ?

- **Outsourcing of non-core chemical management functions to chemical management experts.**
 - Takes chemical management responsibility away from chemical producers motivated to use and sell more chemicals
 - Creates a financial incentive to reduce chemical usage
 - Aligns goals of the chemical “supplier” with the goals of the corporation and the community
- **Primary goals of a chemical management services program**
 - Reduce chemical usage and waste
 - Reduce Health, Safety, & Environmental risk
 - Reduce the total life cycle cost of chemicals

What is Chemical Management ?

- ❑ **Established business practice in many industries for over 15 years**
 - **Automotive**
 - **Aerospace**
 - **Defense Contractors**
 - **High Tech Electronics**
 - **Manufacturing**
 - **Transportation**
 - **Power Generation**
 - **Research and Development**

Chemical Management Services



Chemical Management provides services across the full life cycle of chemical use

- Procurement services
- Inventory Management
- Automatic Replenishment
- Point of use Distribution
- Waste Collection
- Consolidation of Materials / Suppliers
- Chemical Process Optimization
- JIT Delivery
- Chemical Tracking
- MSDS Management
- Custom Reporting
- Environmental Data Management
- Water/Wastewater Management

Chemical Management Benefits

Reduced Chemical Usage and Waste

- **Usage documentation, trend analysis, and benchmarking to identify opportunities for improvement**
- **Product selection based on cost effective performance**
- **Recycling programs (on-site and off-site)**
- **Elimination of unauthorized use**
- **Improved tracking of time sensitive materials to reduce waste**
- **Inventory sharing between departments**

Chemical Management Benefits

Reduced Life Cycle Costs

- Purchase price reduction thru leveraged buy
- Reduce transactional costs with consolidated monthly invoice
- Reduce inventory management costs
- Consolidation of materials / suppliers to
 - Reduce cost of MSDS management, reporting, inventory management
 - Reduce inventory volume / carrying costs
 - Opportunity for bulk / returnable containers
 - Increase supplier service
 - Reduce transportation costs

Chemical Management Benefits

Reduced Health, Safety & Environmental Exposure

- **Improved data for environmental reporting**
- **MSDS management**
- **Container management**
- **Decreased chemical inventory**
- **Chemical storage area monitoring**
- **Safer / environmentally friendly materials**
- **Assistance with permitting and reporting**
- **Management of materials of interest**

Successful Chemical Management

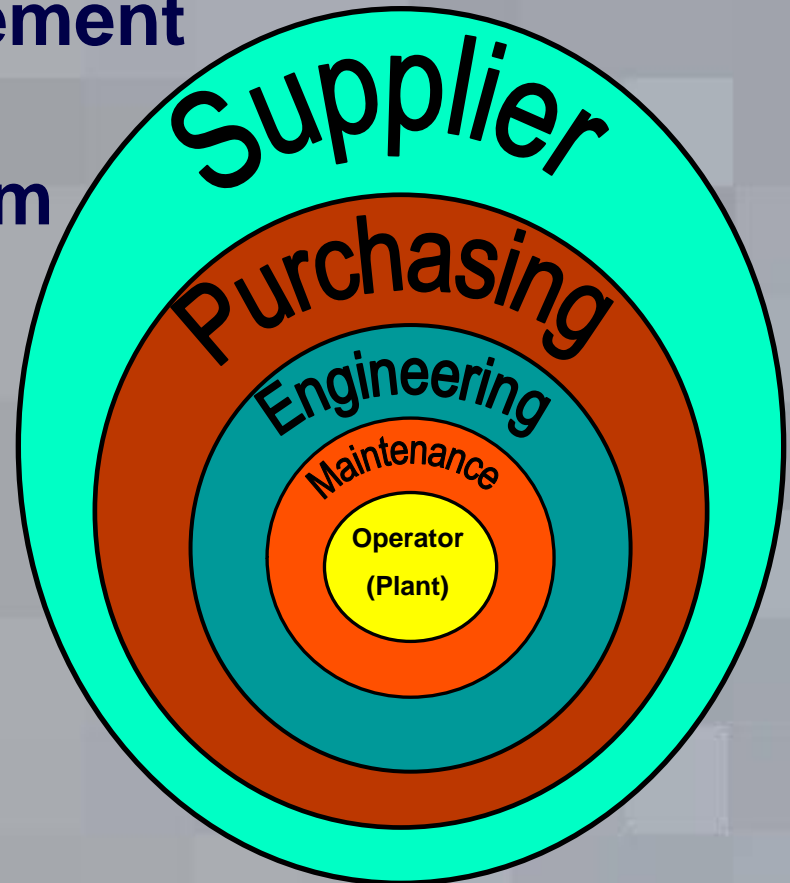
Successful integration of chemical management into a manufacturing operations is a result of:

- A paradigm shift in the approach to supplying chemicals
- Focus on total cost
- Sound business relationship

1. Paradigm Shift

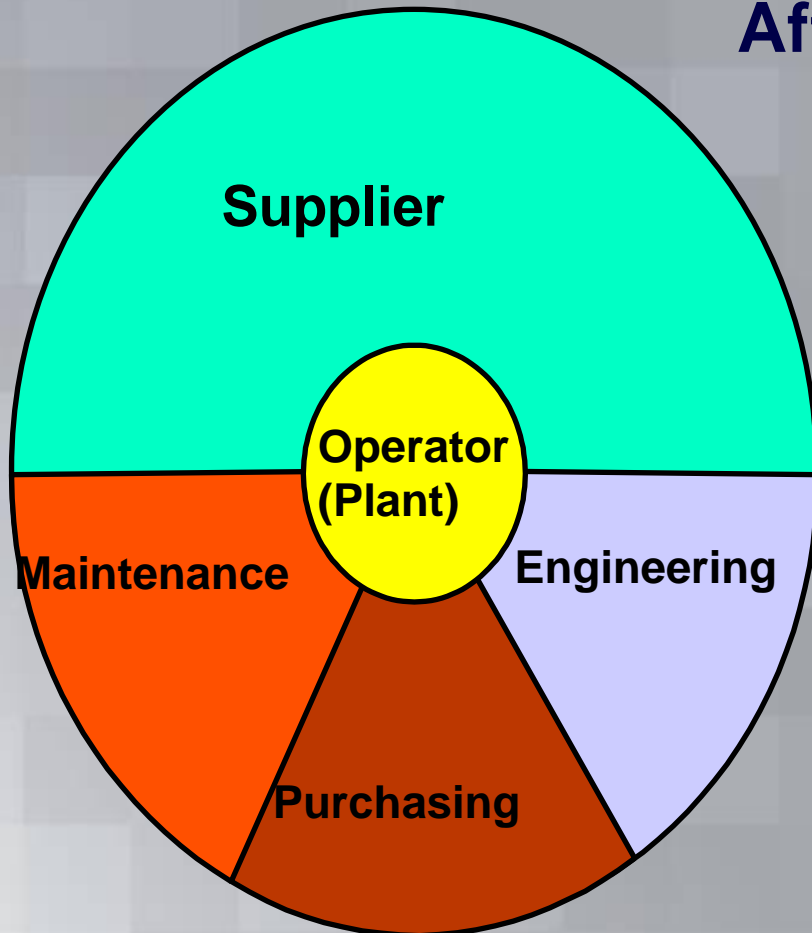
Before Chemical Management

- ❑ Supplier is remote from the Plant Floor
- ❑ Supplier has little accountability for the total process
- ❑ Supplier profits are based on sales



1. Paradigm Shift

After Chemical Management



- ❑ **Supplier has on-site presence**
- ❑ **Supplier is an on-site team member**
- ❑ **Supplier is responsible for the performance of major process chemicals and the entire chemical system**
- ❑ **Supplier profits are based on effective management of the entire system**

1. Paradigm Shift

Successful implementation of chemical management requires:

- Management support of the program from the top down
- An environment that accepts change – no improvement is possible without change
- Cooperation between plant and supplier personnel
- Joint development and maintenance of the program

2. Focus on Total Cost

Successful Chemical Management requires a focus on the total cost and risk of chemical use, not just purchase price.

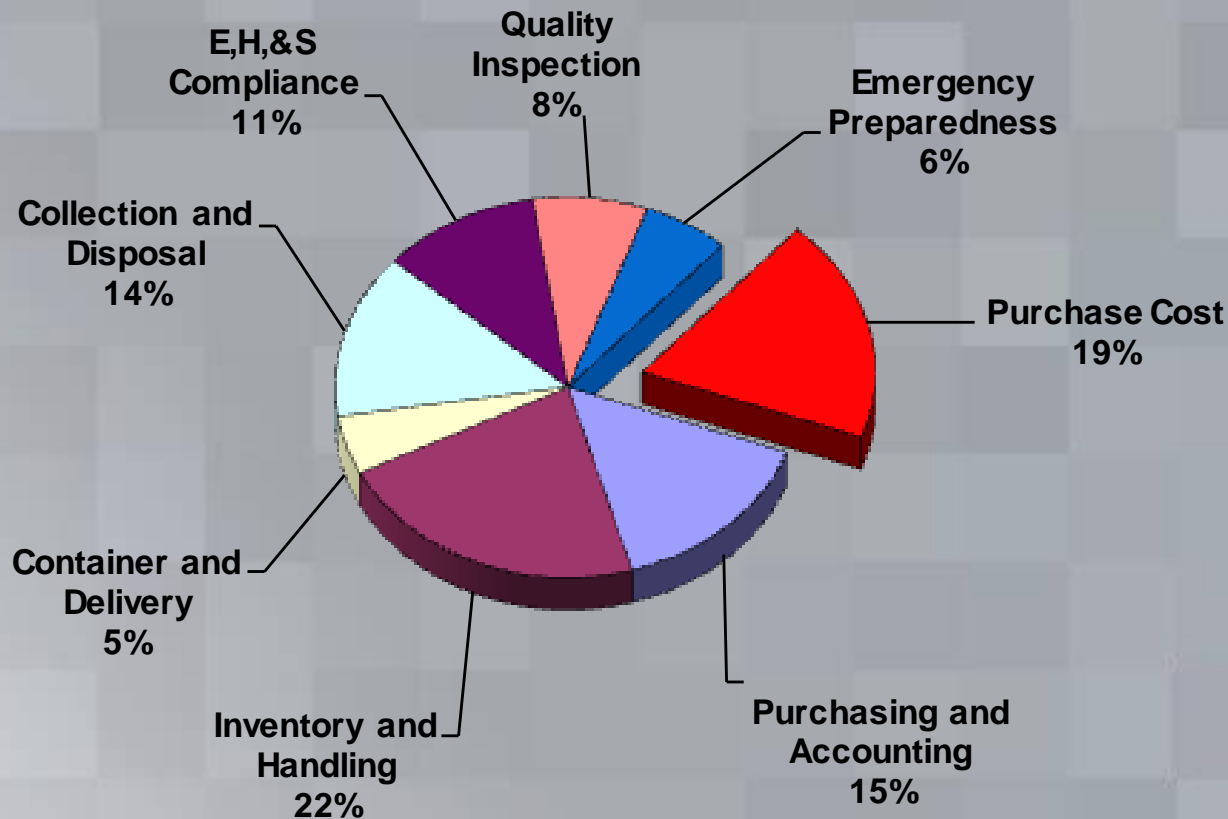
Other factors include:

- Employee safety
- Environmental protection
- Compliance risk
- Waste Disposal costs
- Resources
- Quality
- Productivity



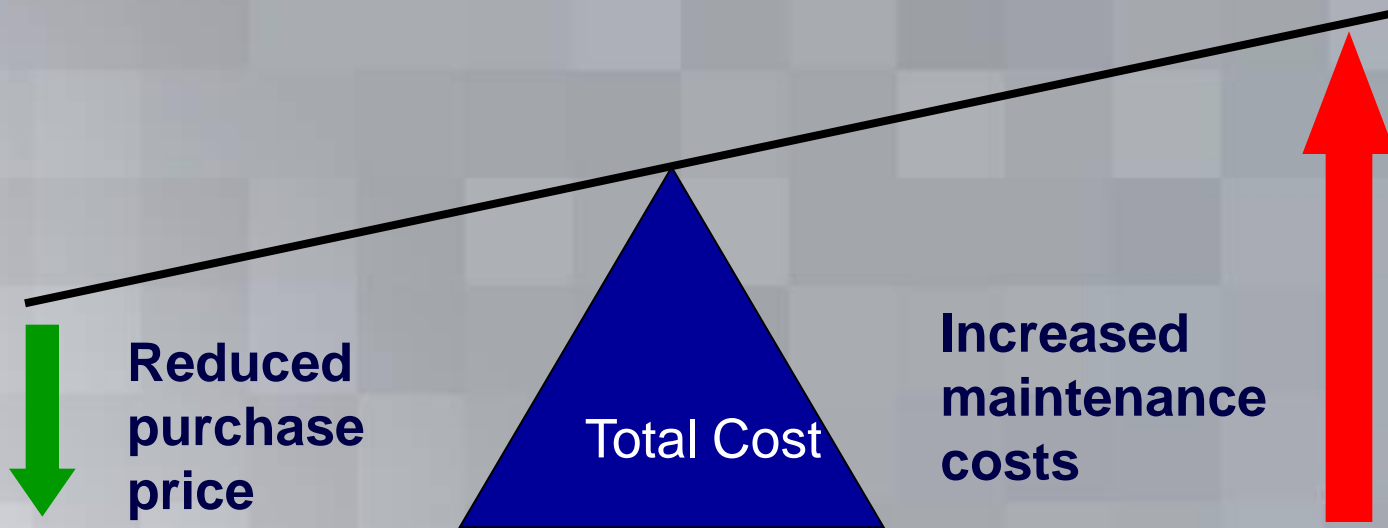
2. Focus on Total Cost

Studies have shown that the actual cost of using chemicals is from 2 to 5 times the purchase price.



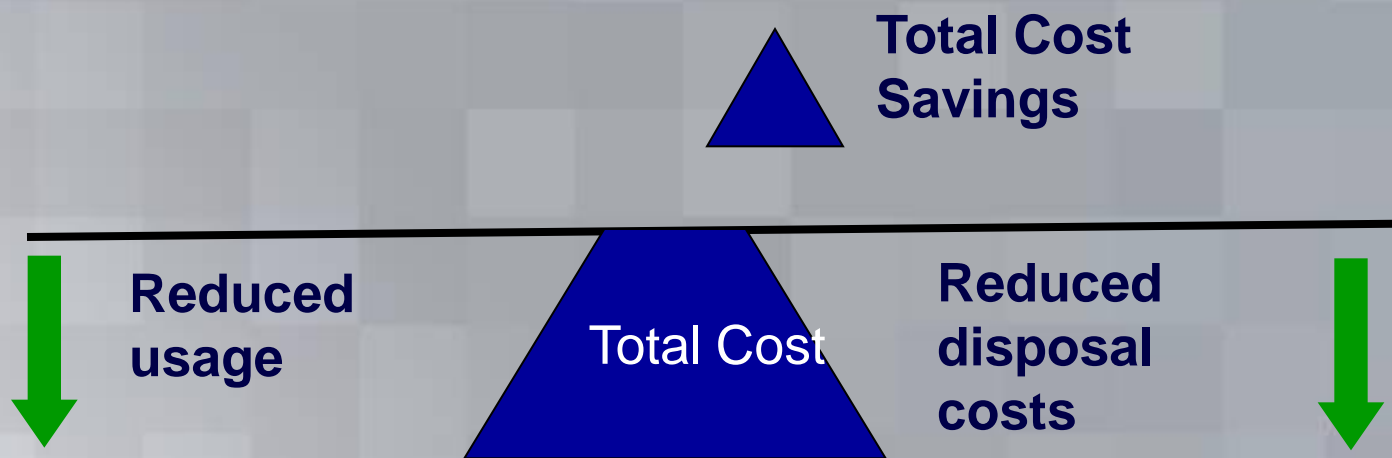
2. Focus on Total Cost

Focusing on specific cost drivers may reduce costs in one area, and not affect the total cost.



2. Focus on Total Cost

Successful chemical management goes “outside the box” to cut the total cost



3. Sound Business Relationship

- ❑ Defined and documented expectations for all parties**
- ❑ Understanding of the Business Case and documentation of baseline costs**
- ❑ Mutually beneficial cost structure designed to achieve common goals**
- ❑ Ongoing communication and defined metrics to measure success**

