

Strategic Environmental Leadership

**National Defense Industrial
Association
Richmond, VA
April 9, 2003**

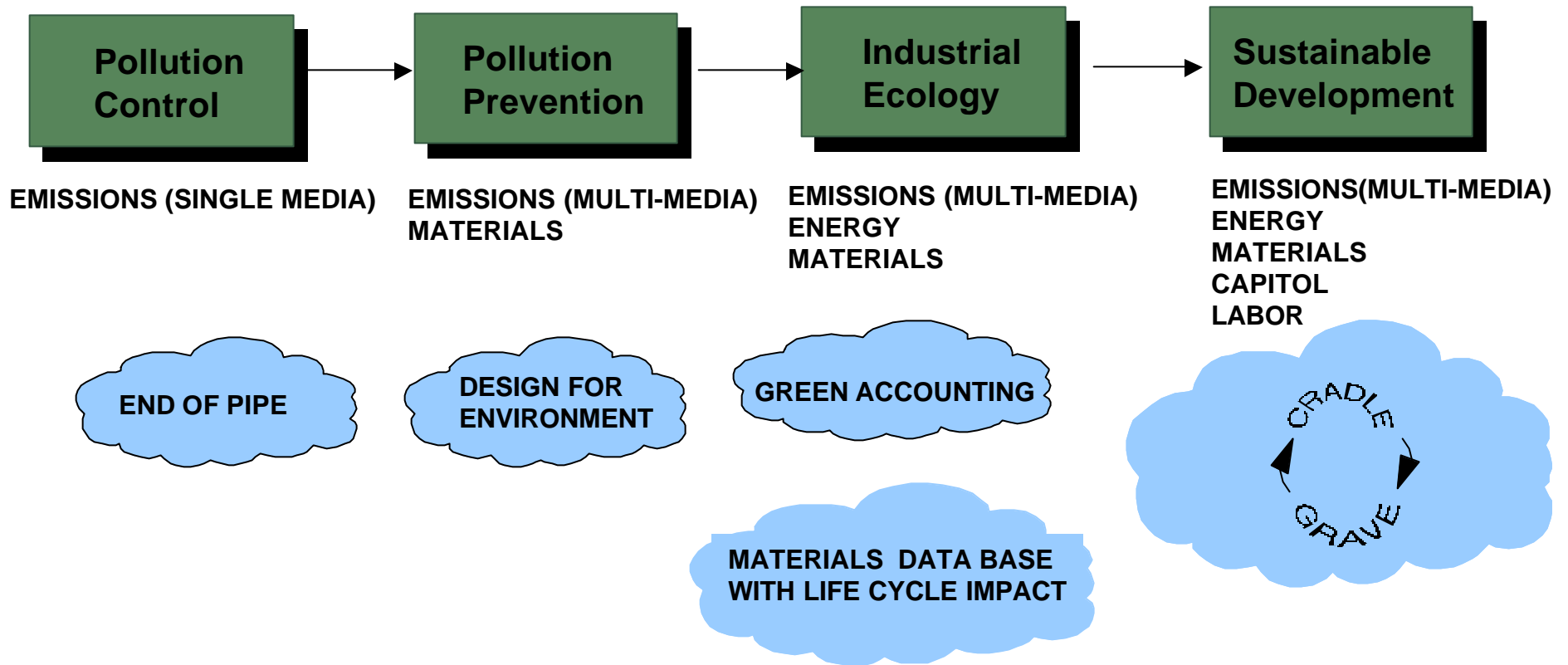
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Outline

- ◆ Overall concepts
- ◆ EMS scope
- ◆ Current examples
- ◆ Support to range sustainment/UXO
- ◆ Support to industrial operations
- ◆ Benefits
- ◆ Summary

Environmental Program Evolution, Re-engineering The Industrial Revolution



Sustainable “Operations”

- ◆ The systematic consideration of *current* and *future* impacts of an activity, product, or decision on the environment, energy use, natural resources, economy, and quality of life.

Strategic Planning

- ◆ What is the condition you would most like to change? (AS-IS)
 - Compliance and encroachment issues
 - Operational and readiness issues
 - Cost issues
- ◆ What would you want as the new state of this condition? (TO-BE)
 - Sustainable installation/range
 - Better product or service
 - Management system built on mission and quality programs
 - Integration of strategic environmental program goals with mission goals
- ◆ Needs Analysis- 5 year vision and plan

EMS Drivers and Scope

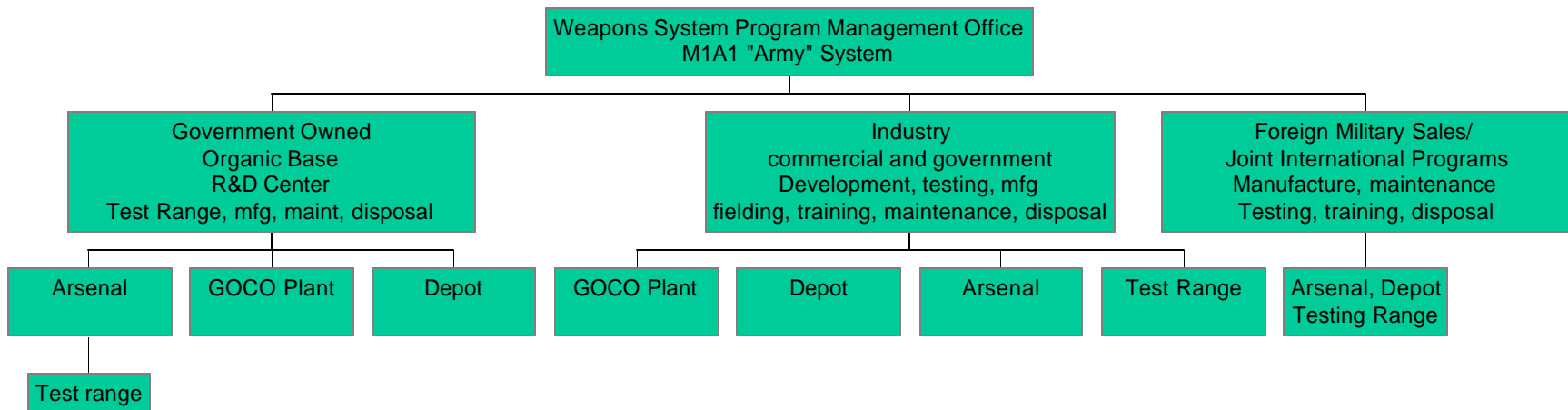
- ◆ EO 13148 Requires Implementation of an EMS at “Appropriate **Facilities**” by 2005
- ◆ DoD EMS Policy Issued APR 02
 - All “**missions, activities and functions**”
- ◆ ISO 14001 Section 4.2- Environmental Policy
 - All “**activities, products or services**”
- ◆ CEQ/OMB priority (Administration priority)
- ◆ OSD and Service EMS Policies and guidance
- ◆ EPA Performance Track
- ◆ Makes good business sense

Military District Of Washington

- ◆ Multiple sites
- ◆ Gap analysis complete
- ◆ Broad mission
 - The U.S Army Band,
 - Third U.S. Infantry Regiment (The Old Guard),
 - Twelfth Aviation Battalion,
 - MDW Engineer Company,
 - Arlington National Cemetery, and the
 - Alternate Joint Communications Center

EMS Program Scope

(Notional)

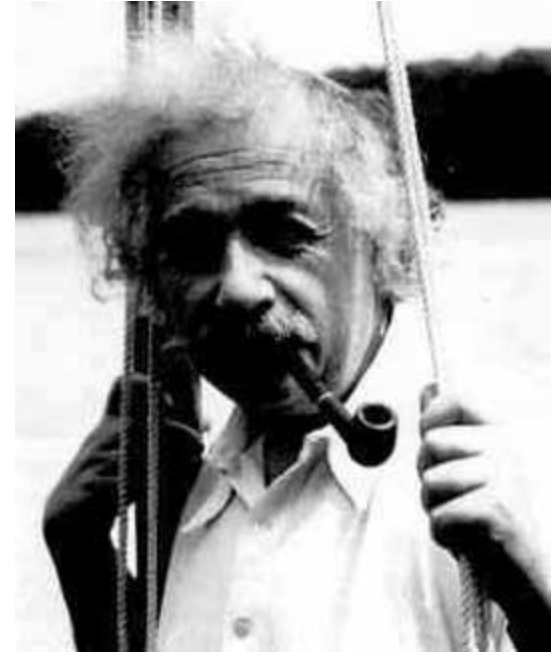


Weapons System EMS

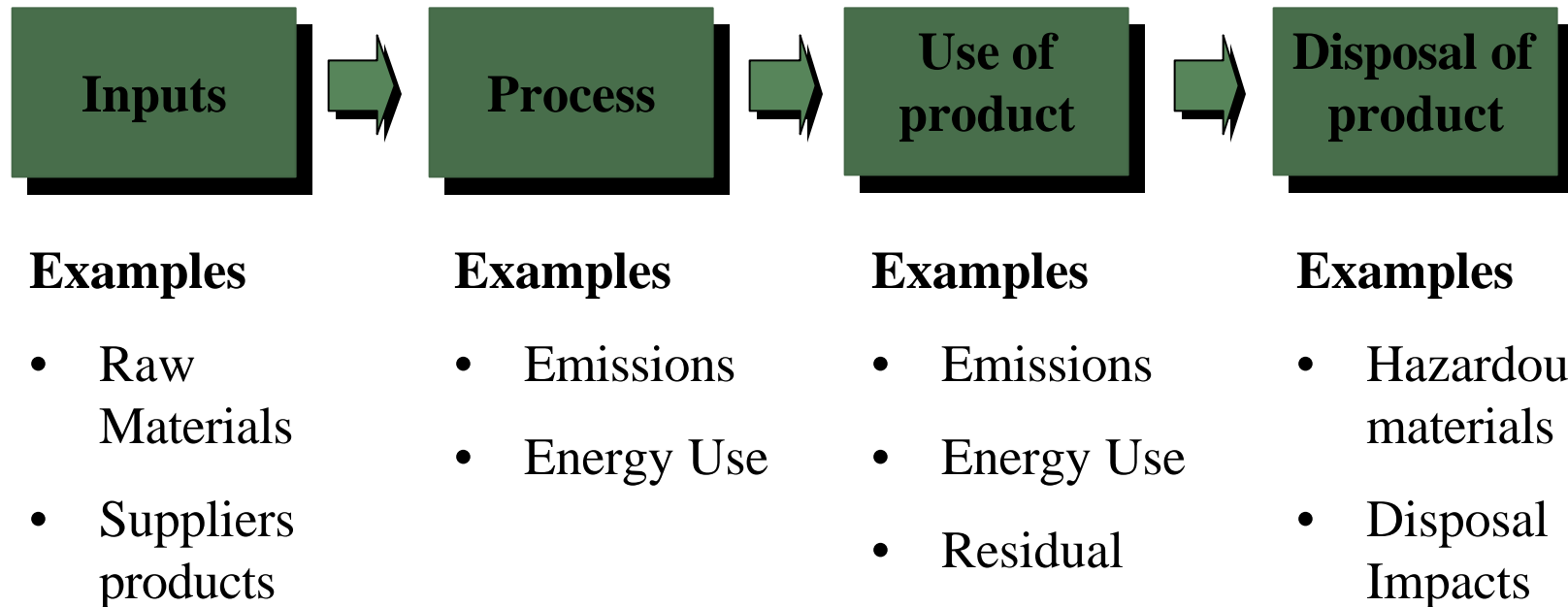
- ◆ Weapon Systems program offices have to perform life cycle environmental assessments (LCEA) and build them into their own and facility EMSs (for each facility impacted- R&D, manufacture, testing, training, maintenance, storage and disposal)
- ◆ Chemicals of concern have to be identified in LCEA and incorporated into both environmental and mission-funded programs (i.e. green ammo)
- ◆ Need to ensure that Scientists and Engineers in the weapons systems commodity centers are involved in EMS and not just the facility/environmental staffs
- ◆ Need a formalized technology transfer and lessons learned process
- ◆ Need to ensure that individual EMSs meet quality (i.e. content) standard and are not just a checklist item like many P2 plans

Albert Einstein

“We can't solve problems by using the same kind of thinking we used when we created them.”



Strategic Environmental Leadership Tools



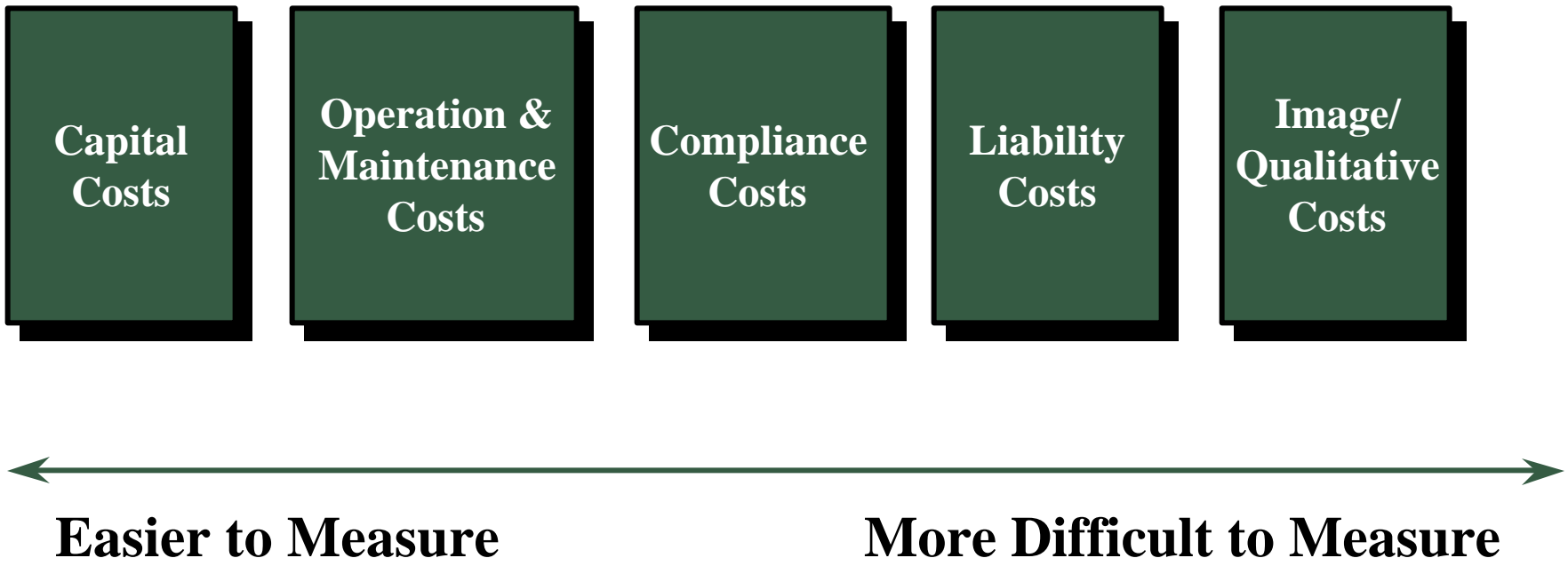
LCEA studies the environmental aspects and potential impacts throughout a product's life cycle

EMS provides management framework

New Weapons Systems Acquisition Parameters

- ◆ Cost (Compliance, Energy, Permits and Liabilities)
 - Hazardous waste and environmental emissions can contribute between 10-30% of a weapons systems life cycle costs.
- ◆ Performance (Alternative technologies and materials)
- ◆ Schedule (Compliance and Permitting process)

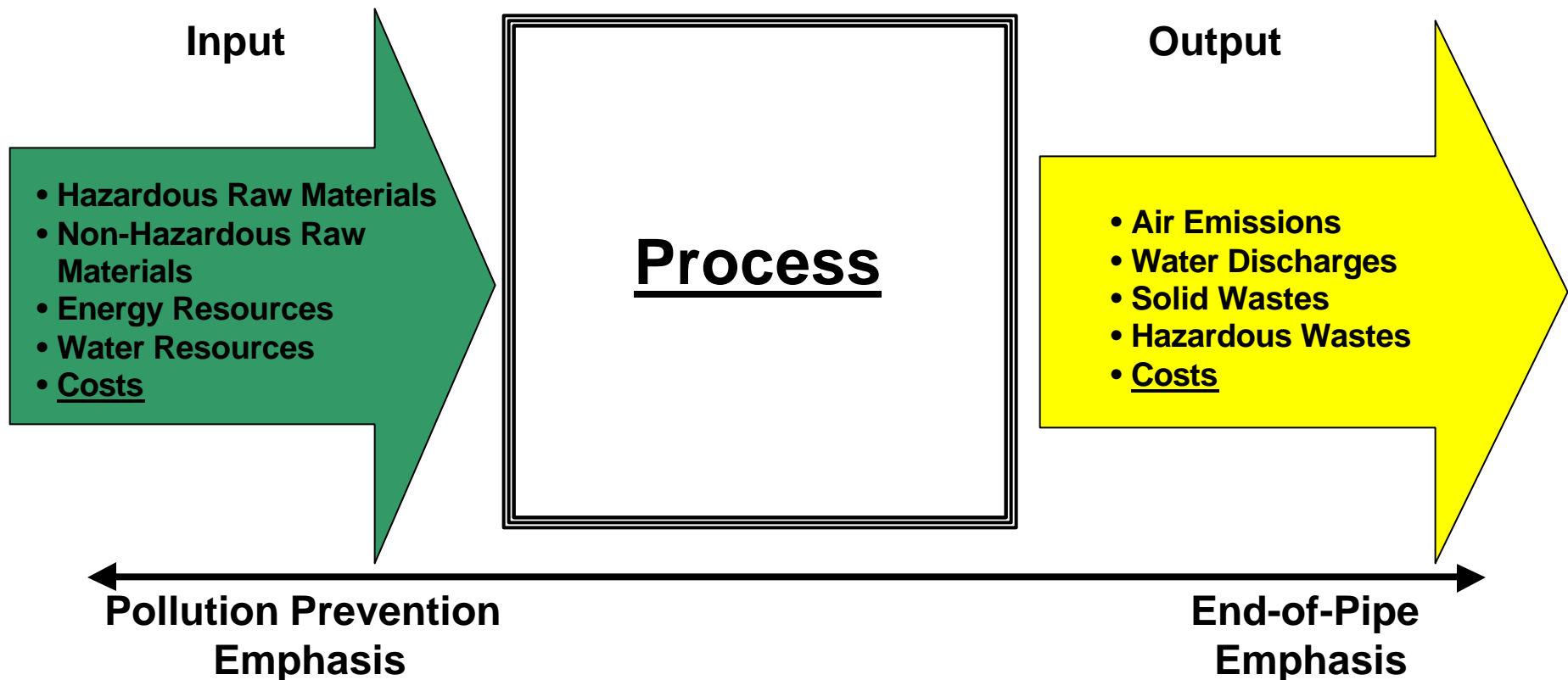
Full Spectrum of Environmental Costs



Metric Model

Leading Indicators

Lagging Indicators



**“The future of strategic
environmental leadership is now”**



EMS Implementation Strategy

- ◆ Three tiered process
 - Strategic- Headquarters Staff
 - Strategic Environmental Management Plan
 - Facilities and “mission organizations”
 - Includes defense contractors
 - Organizational- Regional Env Coord/States
 - Regional Plan- Addresses cross cutting issues
 - Tactical- Installations, “mission” organizations, tenants
 - Site-specific Facility or Organization Implementation Plan

Army Test And Evaluation Command

- ◆ EMS at strategic, organizational and tactical levels
 - Headquarters
 - Major subordinate commands
 - Installations
- ◆ New “tenant” relationships at multiple locations
- ◆ Critical mission test function for weapons systems
- ◆ Customers include US and foreign military, and defense contractors
- ◆ Gap analysis completed and strategic workshop scheduled

Weapons System Support

- ◆ Program Manager Close Combat Systems (formerly Mines, Countermines & Demolitions).
- ◆ Program related rather than facility specific:
 - Environmental impacts associated with contractor activities
 - EMS transportable to other programs
- ◆ Used Life Cycle Environmental Assessment (LCEA) as basis for analysis.
- ◆ Plans to 3rd party certify to ISO 14001
- ◆ Focused on Wide Area Munition (WAM).

UXO/Munitions Constituents Implications

- ◆ Don't create it in the first place!
 - Green munitions- reduce hazardous material usage over weapons systems lifecycle
- ◆ Management tools
 - Manage hazardous materials with no approved substitute
 - Increase reliability of round
 - Self destruct fuse
 - Track firing with modeling and GIS tools
 - Enhanced detection- insert technology into munitions and/or fuses

Manufacturing Example

- ◆ Weapons systems have many cast parts which may be part of larger assembly
- ◆ Significant casting is performed off shore due to cheaper labor and operating costs (i.e. environmental)
- ◆ Quality has suffered due to lower prices
- ◆ Casting Cost Factors
 - Equipment age and process changes
 - Environmental- US EPA maximum achievable control technology (MACT) standards
 - Energy
 - Labor- off shore (i.e. China)
- ◆ Candidate for EMS- Performance track

Performance Track

- ◆ Designed to motivate and reward top environmental performance. Currently, the program has nearly 300 members. As part of membership in Performance Track, participants receive a range of incentives to motivate further improvements.
- ◆ **Benefits-**
 - Recognition
 - Low priority for routine inspections
 - Networking
 - Streamlined reporting
 - *Up to 180 days to accumulate hazardous wastes*
 - *Reduce frequency of reports under MACT provisions of CAA*
 - Joint incentives with states
- ◆ **Website-**<http://www.epa.gov/performance-track/index.htm>

Benefits of Environmental Leadership Concept

- ◆ Supports overall DoD program
- ◆ Potential benefit from EPA and State Performance Track programs reducing level of regulatory oversight
- ◆ Helps document and reduce life cycle costs and considerations
- ◆ Helps link both weapons systems development and environmental communities.
- ◆ Puts DoD leadership, weapons programs and installations in a *better public image*.

NDIA Environmental Innovation Committee

- ◆ Newly formed in March 2003
- ◆ Will interact with OSD, Services and EPA Headquarters to support innovative programs like Performance Track and EPA Innovation Strategy
- ◆ Will cross all NDIA Divisions and local chapters
- ◆ Looking for ideas and suggestions to ensure success!
- ◆ Chairman- Bob Scola, (703) 390-0668

Summary

- ◆ No real change can occur until P2 and life cycle considerations of DOD weapons systems are taken.
- ◆ Single initiatives (i.e. pharmacy) will not alone get you there.
- ◆ Using EMS and strategic planning can help get you there.
- ◆ Participate in NDIA Environmental Innovation Committee and potential sub-committees.
- ◆ ***Opportunities exist for innovation.***