Setting Your Installation Up For Environmental Success

Strategies and Considerations for Effective P2 Planning and Implementation

9 April 2003
Pollution Prevention Opportunity Assessment (PPOA) Methodology

- P2 Planning
- Assessing Opportunities
- Data Collection and Reporting
- Communication
- P2 Hierarchy
- Targets and Objectives
- Aspects and Impacts
- Process Flow Diagrams
- Recommending Alternatives
- Feasibility Analysis
- P2 Initiatives
- Proactive Approach to Achieving Compliance Through P2
P2 Planning

-Assigned Duties and Responsibilities
- Based on Management and Environmental Goals
- Baseline Assessment of Waste Streams and Compliance Sites
- P2 Opportunity Assessment
- Prioritized Plan for Project Implementation
- Funding Scheme
- Documentation of Performance
- Periodic and Frequent Updates
- Management and Command Support
- Integration Strategy
Basis/Justification for P2 Plan

- Prioritize and Screen Efforts to Execute the P2 Program
- Means to Address Compliance Burden through preventive measures
- Facilitates Reporting and Updating
- Demonstrates Feasible Alternatives to Pollution Generation
Data Collection and Reporting

• Accurate and Complete Data is Essential to Good Information.

• Good Information is the Key Knowledge and Wisdom.

• Knowledge and Wisdom are essential to making good decisions and planning.
Communication

- Sharing Success Stories, Lessons Learned, and Good Ideas
- Websites.
- Technology Transfer.
- Working Groups.
- Documenting Performance.
- Reporting.
P2 Hierarchy

• Source Reduction
  • Recycling and Reuse
    • Treatment
      – Disposal
- Overall GOALS are based on published and otherwise applicable MoMs, agency directives, Federal/State regulations.

- Specific OBJECTIVES are based on locally generated compliance waste stream data

- Detailed background knowledge:
  - Installation
  - Operations
  - Processes
Aspects and Impacts

- Compliance Medias
  - Input
  - Process & Throughput
  - Output

- Compliance Site Inventory
  - Location – Geographically
  - Process – Pollution Generation
  - Ownership – Responsible Unit/Activity

- Process/Program Specific Data
  - Material Inputs – Cost, Quantity
  - Production – Labor, Time, Cost
  - Waste – Cost, Quantity
Material Inputs
(Media: energy, water, fuel, hazardous materials, affirmative procurement and environmentally preferable purchases, consumer items, etc.)

Process
Steps
Throughput
(Media: industrial and chemical hygiene, EPCRA, HSMS, etc)

Waste and Pollution Output
(Media: HW, CWA, CAA, etc.)

Recycle
Reuse
Based on experience, domain knowledge, command interest, and professional “hunches.” Requires varied and specific expertise:

- Organization Personalities
- Mission Operations – PM/CM Requirements
  - weapon systems
  - ranges and training
- Installation Management Activities
  - supply and logistics
  - facilities, equipment, vehicle, weapons maintenance
  - medical activities
  - contracting and administration
  - energy production and distribution
  - waste management
- Environmental Media
- Financial Analysis
- Chemistry and Toxicity
- Regulatory Implications
- etc…
Feasibility Analysis

• Description Targeted Process and Detailed Flow Diagram
  – Current Waste Generation
  – Current Operational Parameters
  – Current Material Consumption Rates

• Narrative Qualification of Alternative(s)

• Quantitative Feasibility Analysis
  – Technical Feasibility
  – Environmental Feasibility
  – Economic Feasibility
P2 Initiatives

• “Finalized” P2 Opportunities.
• Technically the “result” of PPOA.
• Initiatives = Real Projects:
  • Planned
  • Funded and Resourced
  • Responsible POC
  • Data to Document Performance
  • Evidence of Effectiveness
  • Future Success Story
ProActive Approach to Achieving Compliance Through P2

P2 Prong
- CSI
- P/PSI
- local goal

Develop Tentative Plan
ID Suspected
"low-hanging fruit"
"Reasons" for Pollution Generation

Feasibility Analysis
Define "alternatives"
Compare "alternatives"
- ID "Initiatives" and "Efforts"

Present Recommendations
Initiatives vs Processes
Efforts vs Program

Planning
Prioritize
Funding / Scheduling
Assign Responsibility
Execute
Monitor

Document Performance
Reconcile
Compare
Review

Revise Goals

Compliance Prong
- Regs
- MoMs
- Rules

Environmental Management

EMS

CTP2