EMS Management Review – HENP

- Program Description
- Review of Assessments
- Stakeholder Concerns
- EMS Improvements
- Pollution Prevention Initiatives
- Environmental Performance
- Financial Investments
- Questions & Answers
- Program Evaluation by Senior Management
EMS & ESR Connections

Identify Activity and Submit ESR

Committee Review

Modification or Annual Update

Safety Issues

Do Work

Controls

Approve Experiment

Evaluate Impacts

Modify Systems

Develop Controls

Revise EMP & OCF

EMS Aspect Identification

Include in EMP & OCF

Existing

DER & ECR EMS Requirements Improvements, etc.
EMS Program Description – Physics

Operations
- Small scale experiments & Special areas – ESR process
- Machine shops – PEP process

Key Elements – Integration
- Aspect identification, controls & management plans integrated into ESR process
- Communication
  - Web pages (EMS information & training)
  - Weekly meetings with Chair & key personnel
  - Group Safety Coordinators
  - Department “All Hands” meetings
- EMS Assessments
  - Integrated into Department self-assessment plan
  - Integrated with Tier I where effective
Significant Aspects Identified

- **Industrial Waste** – various oils
- **Haz. Waste** – from small scale experiments: solvents, epoxy, Hg, chems.
- **Rad. Waste** – from decayed sealed sources: an *anticipated* waste stream
- **Medical Waste** – non-medical use of syringes: epoxy & grease application
- **Atmos. Dischg.** – permit for abrasive saw in shop
Review of Assessments

- Compliance – No Issues
  - Satellite areas listed & inspected
  - 90-Day area maintained
  - Radioactive waste storage maintained
  - All permits in order

- System – April 2000 Audit
  - Implementation is good
  - Improved self-assessment to address findings
  - Expanded E controls to address concerns

Haz Waste is Main Aspect
Stakeholder Concerns

Issues and Actions

- Activists – none
- Community – none
  - Personnel give lectures
  - Involved in BNL open days
- Regulators – none
EMS Improvements

- Aspect Analysis
- EMS Maintenance
- Compliance Assessment via Tier I’s
- Pollution Prevention Explicitly Included
- Dept. Web Pages & Internal Shared Files
  - Aspect identification (ESRs)
  - EM plans & Operational controls
  - Training, program descriptions & other information

Integrated into ESR Process
Pollution Prevention Initiatives

■ Hazardous Waste
  • Antifreeze $\rightarrow$ recycle
  • Solder scraps $\rightarrow$ recycle
  • Alkaline batteries $\rightarrow$ trash
  • Waste ethanol $\rightarrow$ sink disposal
  • Reduced satellite areas 40 $\rightarrow$ 15

■ “Free Table”

■ Radioactive Source Inventory

■ Annual Chemical Inventory

$\text{Resource recovery}$

$\text{\$ Savings\$}$
Environmental Performance

Physics Waste Generation

- Hazardous
- Industrial
- Radioactive

Brookhaven Science Associates
U.S. Department of Energy
Environmental Performance

■ Objectives
  • EMS implementation complete, milestones met
  • Compliance with Regs
  • P2/waste reduction

■ Performance Measures (Goals)
  • PEP corrective actions (95%) → 100%
  • Evaluate & disposition APC (25%) → 40%
  • Prioritize & evaluate P2 opportunity (1) → 2
  • Tier I inspections → 97% on time, 33% with ECR

Integrated into ESR & Tier I process
Financial Investments

- Time & Effort
  - Physics → 1,200 ± 10% person-hours
  - ECR (included above) → 0.3 FTE

- Other Resources
  - Web servers → minimal additional costs

- Sustaining EMS
  - Physics → 0.3 FTE
  - ECR → 0.3 FTE
EMS Management Review – Physics

Questions & Answers
- Your particular questions on EMS

Senior Management EMS Program Evaluation
- Identify possible improvement actions → assign responsibility to track & implement
- Suggestions will be recorded & actions taken.
- Five general topics
Senior Management EMS Evaluation

- Effective in Achieving Policy Commitments?
- Effective in Achieving Objectives & Performance Measures?
- Is EMS Adequate in Terms of:
  - Identification of significant aspects & impacts?
  - Resource allocation?
  - Information systems?
Senior Management EMS Evaluation

- **Objectives & Performance Measures** Suitable in Terms of:
  - Impacts & current conditions?
  - Concerns of stakeholders?
  - Current & future regulatory requirements?
  - Internal organizational or process changes?

- Recommend Revisions to:
  - Environmental policy & commitments?
  - Objectives & performance measures?
  - Elements of EMS?