

Integrated Work Management and the LANL Environmental Management System

Compliance as Outcome



EMS and Work Controls

- LANL actively changing all work control procedures
 - Safety the focus of 2003 activities
 - Phase II integrates environment, safety, health and security into work approval
- EMS development required during same time period
- Logic dictated integration of effort

Linking Lab-wide Efforts

- Environmental Management System (EMS) developing:
 - Activity-based environmental aspects and impacts and prioritizing
- Integrated Work Controls developing:
 - Work approval process
 - Automated Job Hazard Analysis Tool
- RCRA Corrective Actions developing:
 - Root cause analysis
 - Corrective Actions

EMS and Integrated Work Management for Compliance

Continual Compliance Improvement

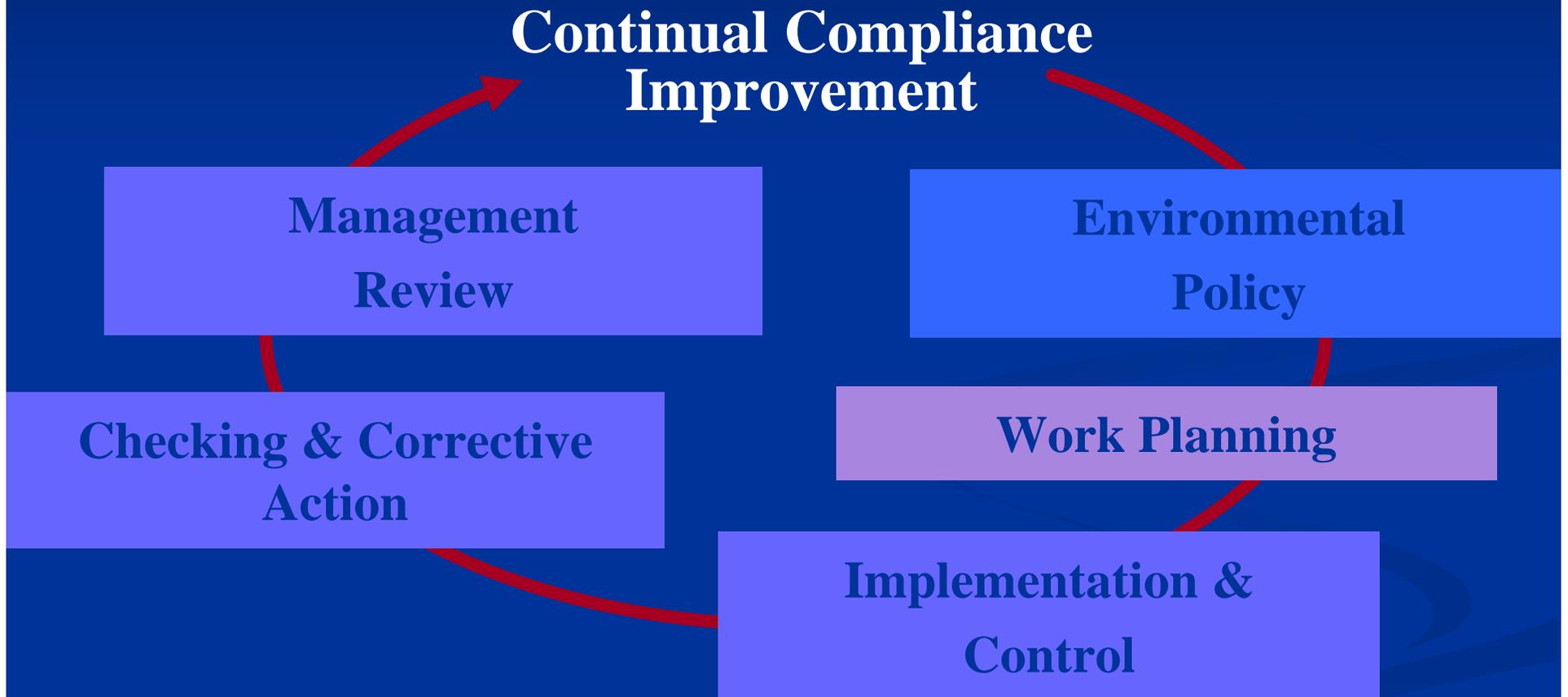
Management Review

Environmental Policy

Checking & Corrective Action

Work Planning

Implementation & Control



Environmental Requirements in Integrated Work Mgmt.

- Environmental issues equally weighted with safety, health and security
- Process identifies environmental aspects and impacts and their controls
- Process projects waste volumes
- Process identifies environmentally preferable alternatives
- Process requires waste disposition pathway and waste management checklist

Activities

- EMS Aspects Team nearly developed institutional aspects and impacts
 - Developed with direct end-user involvement
- IWD Hazard ID Tool Selected
 - Build Hazard Trees into tools
 - May pilot roll-out - end users and SME's
 - Build RRCA lessons into hazard ID
- Aiming for continuous improvement

Linkage route

RRCA Lessons



Worker Feedback



Environmental Impacts

Management Review



Hazards

Post-job evaluation



Work Controls

Pre-job Checking



Outcomes and Benefits

- Integrates environment, safety, health and security into the life-cycle of work
- Inserts RCRA tools into work processes
- Provides tracking of wastes
- Uses pollution prevention to reduce risk
- Raises worker awareness of environmental issues, including RCRA, for continuous improvement
- Reduces violations and fines
- P2 integrated with broader lab processes