

US EPA ARCHIVE DOCUMENT

# Appendix A: Workshop Training for Module 9

## EMS Guide Meat Processing

## Continuous Improvement

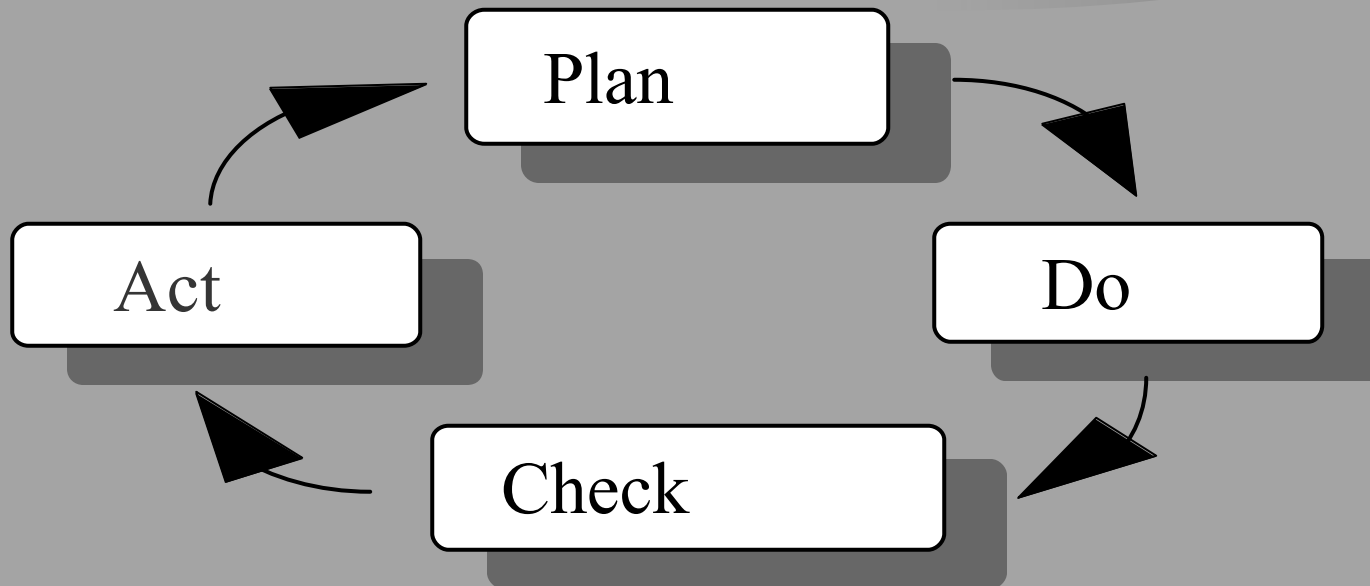


# Today

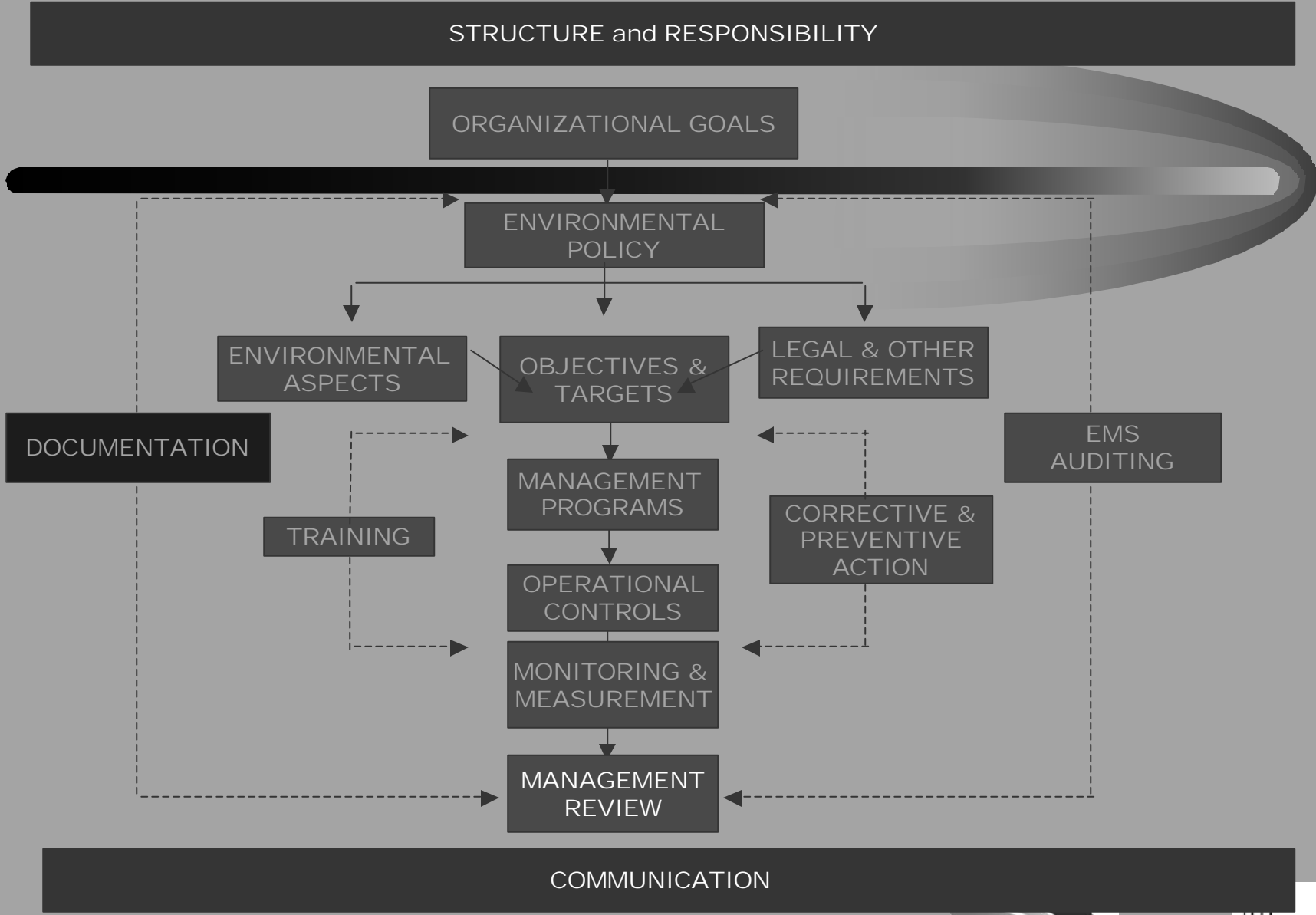
- Continuous Improvement.
- Measurement Criteria.
- Management Review.
- Homework.



# EMS Framework



# Relationship Among Environmental Management System Elements



# Continuous Improvement

- Systematic identification and correction of deficiencies.
- Leads to better environmental performance.



# Continuous Improvement

- Focus on **what** happens and **why**.
  - Co-mingled cardboard
    - Possible causes:
      - Training
      - Lack of proper equipment
      - Communication



# Continuous Improvement

- What is meant by environmental performance?
  - Did you reach your objectives?
  - Did you reduce the negative impacts of your operations?
  - Is your system working?
- How do you know?





# Determining Measurement Criteria

- Environmental Performance Indicators
  - Evaluate success of overall EMS.
  - How well overall system is functioning.
  - Needed for all components of your EMS.
    - Communication
    - Documentation
    - Stakeholder outreach
    - Training program



# Measurement Criteria

- Measure activities
  - Number of meetings with stakeholders
  - Number of documents created
  - Number of employees trained
  - Number of hours trained



# Measurement Criteria

- Measure results
  - Number of environmental objectives and targets met
  - Percentage of employees completing training
  - Average time for resolving corrective actions
  - Number of non-conformance
  - Number of incidents of non-compliance
  - Pounds of hazardous waste generated per unit of production
  - Energy or water use per unit of production



# Activity: Measuring Environmental Performance

- Select one element of your system.
- Identify five activity measurements and five result measurements.
- Determine how these measurements will be used to assess performance of your system and improving environmental impact of your facility.
- Suggest next steps data will lead you to.



# Results of Environmental Performance Indicators

Will become the basis for plans for  
Next Year!



# Management Review

- Key to continual improvement and ensuring the EMS meet your organizations needs over time.
- Strategic analysis of the EMS.
- Should answer “Do we have the right system for what we do and how we impact the environment?”
- Should focus attention on overall EMS performance.



# Management Review

- A management review should answer the following questions:
  - Are environmental risks being managed effectively?
  - Are we complying with environmental regulations, will we continue to and can we demonstrate it?
  - Are we achieving improvement in environmental performance? (Have we reduced our negative impact on the environment?)



# Who Should be Involved in Management Review?

- People who know the right information (knowledge).
- People who can make decisions about the plant and its resources (top management).





# Frequency of Management Review

- At a minimum recommend once a year.
- Should work best for your facility.
- Consider whether to combine it with other management meetings (i.e. Directors meeting) or if it should be stand alone.



# Information for Management Review

- Did we achieve objectives and targets?
- Is our environmental policy still relevant?
- Are roles and responsibilities clear?
- Are our procedures clear and adequate?
- Are we fixing problems when we find them?
- Are we monitoring our EMS?
- What do the results tell us?



# Information for Management Review

- What effects have changes in materials, product, or services had on our EMS?
- Do changes in laws or regulations require us to change our approach?
- What stakeholder concerns have been raised since our last review?
- Are outreach programs working?
- Is there a better way?



# Management Review

- Should address changing circumstances of your business.
  - Include internal changes (i.e., new facilities, raw materials, new products, customers).
  - External changes (i.e., new laws, scientific information, changes in adjacent land use).



# Activity

List items to be covered in comprehensive management review meeting.



# After the Review

- Document the action items.
- Assign responsibility to execute changes in a timely manner.
- Review potential changes to EMS in light of other organizational plans and goals.
- Continue to provide management with information to continue making decisions that support EMS.



# Homework

- Define your management review process. Think of how this review will foster continual improvement.
- Review the EMS implementation process and bring examples of lesson learned to share.

