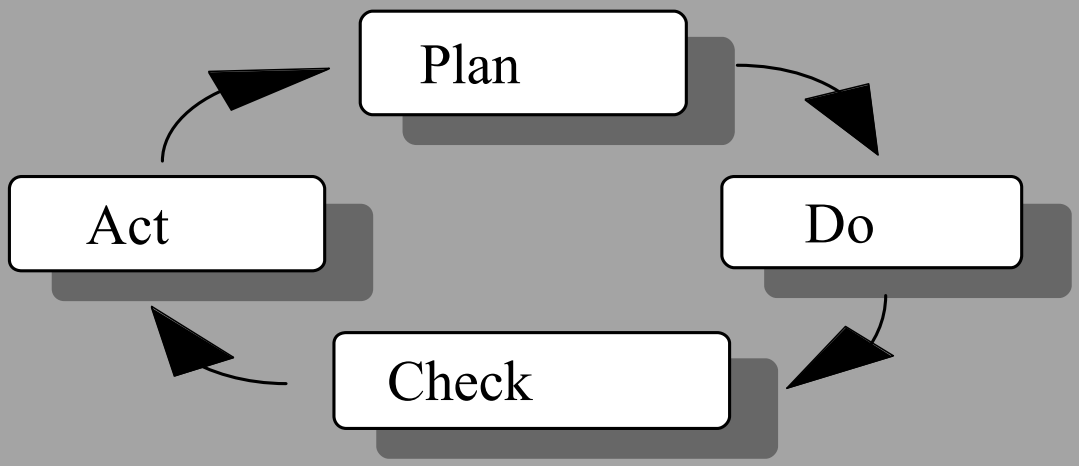
Appendix A: Workshop Training for Module 5

EMS Guide Meat Processing

Environmental Management Programs (EMPs)

EMS Framework



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Planning Review

- Policy Statement.
- Scope.
- Legal and Other Requirements.
- Aspects/Prioritization.
- Objectives & Targets.
- Environmental Programs.

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Good Job!

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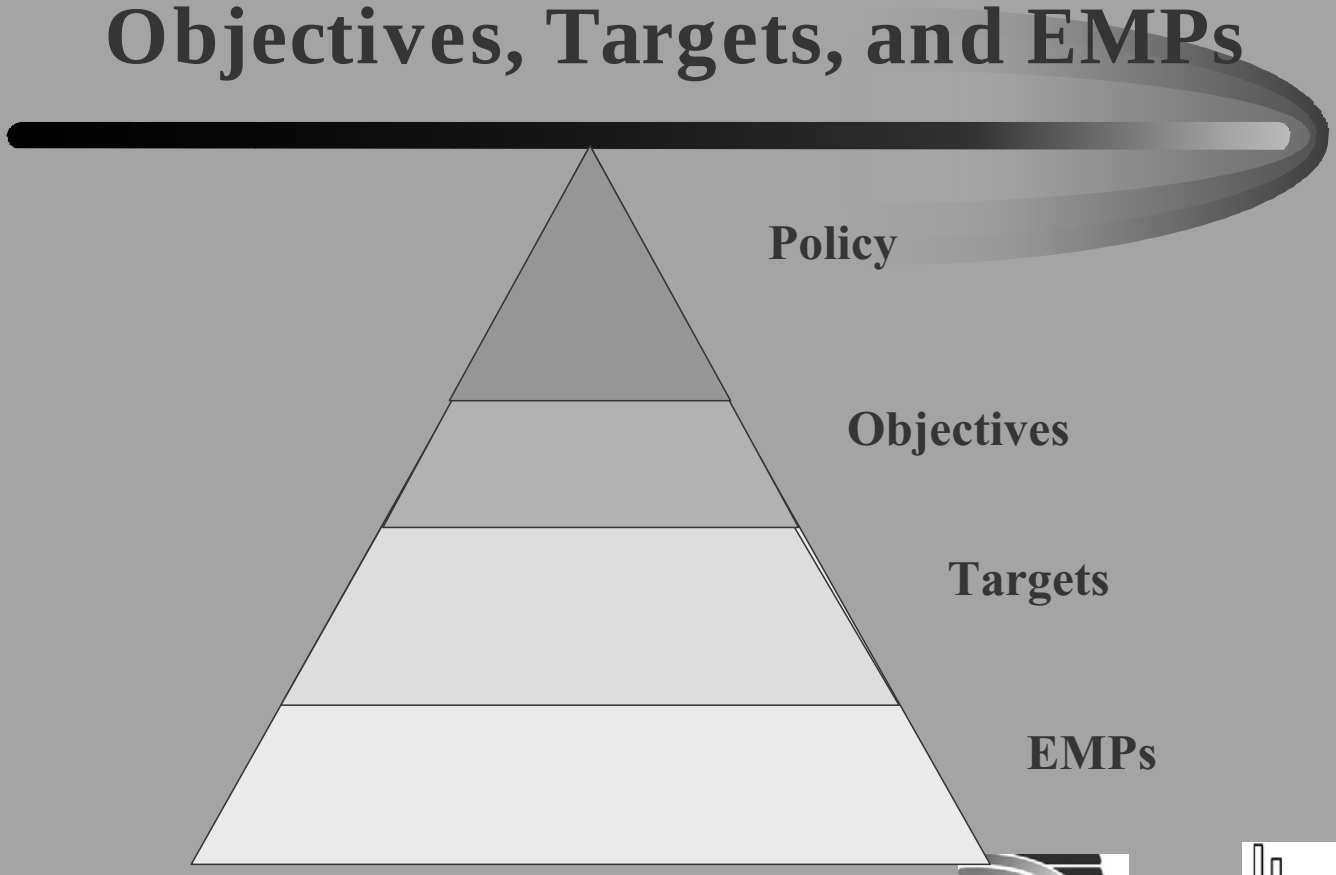
Interrelationship of Policy, Objectives, Targets, and EMPs



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Environmental Management Programs (EMPs)

- Translates goals of your organization into concrete actions that ensure objectives and targets are met.
- Getting closer to where the rubber hits the road.
- Understand:
  - Responsibility
  - Means
  - Timeframe
- Expand existing programs before creating new
  (as opposed to aspect identification using existing).

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Relationships

- Operational controls, and monitoring and measuring are really the details of an EMP.

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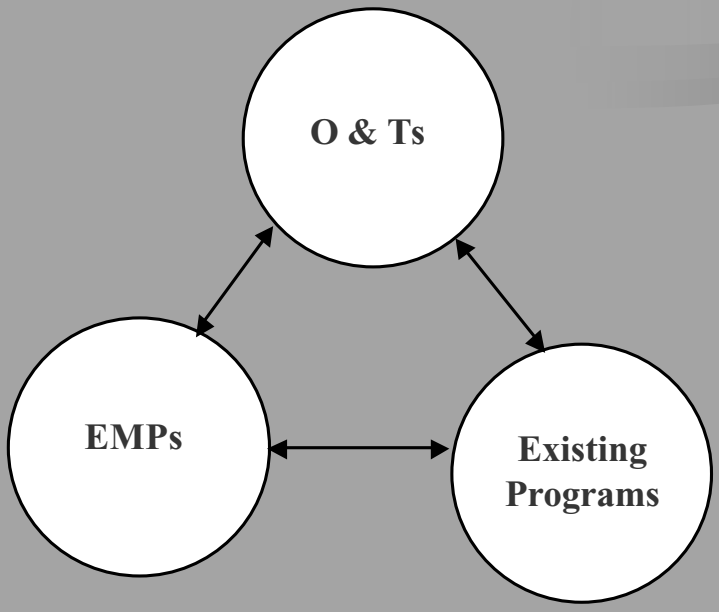
Iterative Non-Linear Process



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Environmental Management Programs

- Provides details of achieving objectives and targets.
  - Method
  - Personnel
  - Resources
  - Time frame

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EMP Outline

- Information may include:
  - Objective;
  - Target;
  - Responsible party(s);
  - Budget;
  - Date of expected completion;
  - Date of actual completion; and/or
  - Performance indicators for measurement.

Sample EMP Form

Date: :(_____/_____/____) Individual Responsible:
Environmental Objective(s):
Related Target(s):
Related Significant Environmental Aspect(s):
Specific Function and/or Department:
Target Date (Month/Year): (_____/_____)
Environmental Management Program: Action Plan
How will this objective be met? (attach additional pages as necessary)
What operational controls might support the achievement of this objective?
How will this objective be tracked? (attach additional pages as necessary)
What resources will be required to achieve this objective?

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Revising EMPs

- Remember the programs are dynamic.
- Change is okay.
- Reasons for change:
  - Objectives/targets are modified;
  - Legal requirements change;
  - Significant progress has been made;
  - No progress has been made; and
  - Products, services, processes, or facilities change.

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Activity 1

- You currently collect waste packaging based on whether it comes in contact with meat or not. When discarded the wastes are co-mingled.
  - Suggest possible EMP outline.
  - Suggest possible performance indicators.
  - What kind of changes could occur to change the associated objective/target/program.

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Successful EMPs

- Build on plans and programs in place.
- Involve employees early in process.
- Communicate clearly expectations and responsibilities.
- Be open to change.
- Keep it simple.
- Management support.

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Hints

- Involve all staff levels in developing the program.
- Use existing systems and management processes.
- Continual improvement does not mean fix everything immediately.
- When evaluating alternatives keep the drivers behind objectives and targets in mind.

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Operational Controls

- Definition:
  - Are those documented procedures that can help your plant manage its significant environmental aspects, ensure regulatory compliance, and achieve environmental objectives and targets.

Critical Step In Designing An Effective EMS Is:

To determine which operations should be covered by procedures and how those operations should be controlled.

When Do You Need A Procedure?

- When their absence could lead to deviations from the environmental policy or an adverse effect on the environment.
  - Pollution prevention
  - Regulatory compliance
  - Objectives and Targets
  - Significant Aspects

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Reasons For Documented Procedures

- Risk of activity.
- Complexity of activity/method.
- Degree of supervision.
- Skills/training of workforce.

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Rule of Thumb:

- Document operational controls when:
  - Experience has shown someone needed to write it down to be sure it was done correctly; or
  - It needed to be written down to teach existing or new employees how to effectively ensure the control worked.
  - Do not create procedures if they do not enhance the EMS.

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Activity 1: Do You Need An Operational Control?

- You currently collect waste packaging based on whether it comes in contact with meat or not. When discarded the wastes are co-mingled. New program separates wastes to optimize recycling opportunities.

Look Beyond Routine Production or Services

Include activities such as equipment maintenance, management of on-site contractors, and services provided by suppliers or vendors.

A Fishbone Diagram

Can identify root causes of impacts. This is where operational controls should be implemented.

Root Cause Diagram

See Module 5, Figure 5-3 for the Root Cause Diagram.

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Activity 2: Is this an Effective Operational Control?

- All visitors, contractors, service providers must read a handbook detailing safety procedures on the site. It includes frocking requirements for each department, contractor's responsibility for waste generation and removal, and emergency evacuation procedures. The visitor must check and sign all areas of knowledge before gaining access to the site.

Operation and Maintenance Programs Should Exist For:

- Equipment/operations related to legal compliance.
- Significant environmental aspects.
- Examples:
  - Management/disposal of wastes
  - Approval of new chemicals
  - Storage/handling of raw materials and chemicals
  - Equipment servicing
  - Wastewater treatment

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Activity 3: Do You Need Operational Controls?

- Water level sensors are installed in the scald tank to prevent overflow. When water level exceeds 80% capacity of the tank, the sensor opens a by-pass valve and water level is reduced to 60% of the tank's capacity. The excess water is sent to a holding tank to be re-circulated. The by-pass valve is typically activated once per shift.
- Is there any related activities that may need an operational control?

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Useful Building Block

- HACCP Principle III: Establishing Critical Limits for each Critical Control Point (CCP)
  - CCPs are typically either an upper limit that is not to be exceeded or a specified performance range.
  - It is not the upper limit or range that is the operational control but the steps your plant takes to meet these limits.

Training vs. Complexity

- The more highly skilled and trained the employee, the less critical are documented work instructions.
- As work becomes more complex, or the potential for environmental impact(s) increases, the more important the documented work instructions become.
- High turnover rate requires more training and written work instructions.

Operational Controls

- The things that actually make a difference.
- How the EMP is implemented (day to day things that occur).
- Includes who does what.

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Draft Procedures

- Whoever is actually going to implement the procedures needs to be involved in there fine tuning.
  - i.e., The person who operates the pollution control and monitoring equipment.

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Operational Controls

- Do occur at all levels of the organization in some cases.
  - If the decision making process is the key cause for when and if impacts occur.
  - Where production and design decisions get made.

Homework

- Develop new EMPs where required and modify or expand existing EMPs to detail how objectives and targets will be met.
- Determine what operational controls and process monitoring and measurements are needed in order to meet the objectives and targets.