



ISO 14001 Environmental Management System Training

Establishing Environmental Objectives and Actions to Achieve Them

Iowa Department of Natural Resources

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This webinar is being recorded



Welcome and Introductions

- ▶ Name
- ▶ Where do you work?
 - ▶ Title/Department/Facility
- ▶ What is your experience with:
 - ▶ EMS?
 - ▶ ISO 14001?
 - ▶ Environmental Compliance?
 - ▶ Audits?
- ▶ What do you hope to get out of this training?



Previous Webinar #1 Review

- ▶ Overview of the ISO 14001 Standard
- ▶ Identifying Environmental Aspects & Impacts and Defining Significance
 - ▶ Determining aspects and impacts
 - ▶ Ensuring your rating system is appropriately highlighting significant objectives
 - ▶ “Workshop” Exercise
- ▶ Brief intro to Developing Objectives & Actions



Survey Results

► What you want more of:



Webinar #2 Agenda

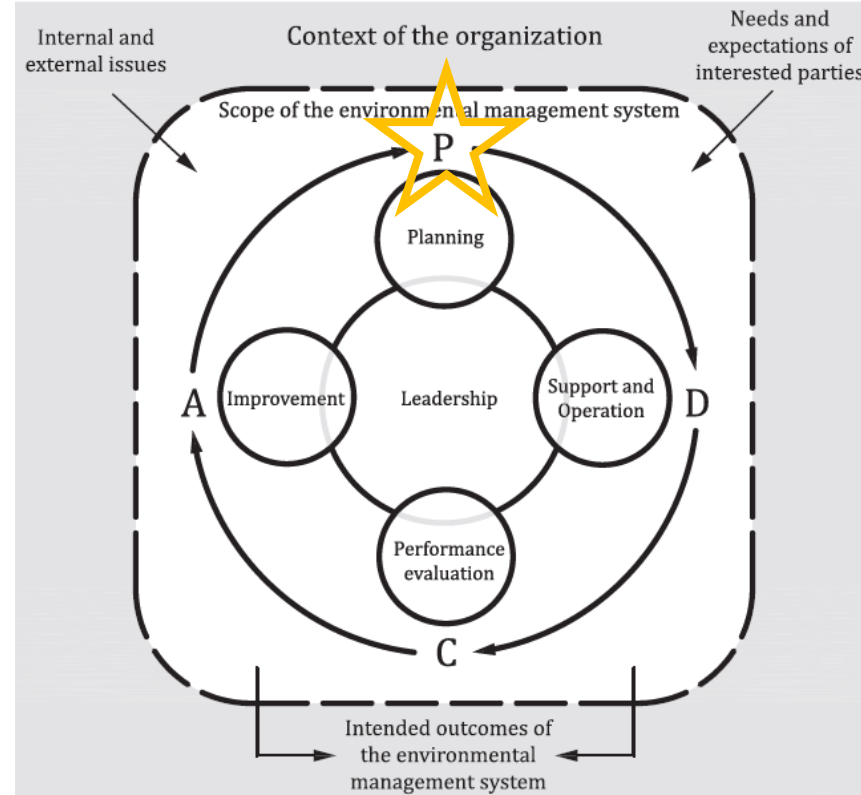
- ▶ Establishing Environmental Objectives
- ▶ Actions to Achieve Objectives
 - ▶ Example Interactive Workshop
- ▶ What if we aren't trending in the right direction?
- ▶ Brief Lead into Auditing



Establishing Environmental Objectives

Plan – Do – Check - Act

- ▶ Establishing Environmental Objectives is part of **Planning**



Environmental Objectives (Plan)

- ▶ Take into account the significant environmental aspects, compliance obligations, and risks and opportunities.
- ▶ Objectives shall be:
 - ▶ Consistent with the Environmental Policy
 - ▶ Measurable and Monitored
 - ▶ Communicated to the organization
 - ▶ Documented and kept up-to-date
- ▶ Objectives can be called actions, Goals, any buzz word you like! As long as they utilize the SEAs to drive that improvement.



Environmental Objectives

- ▶ Objectives should be approved by top management.
- ▶ Objectives and action plans should be documented and communicated.
 - ▶ Team Meetings
- ▶ Performance against objectives should be reported regularly.
- ▶ Objective goals can be adjusted, as needed, with changing circumstances, but **MUST** document why.
- ▶ Objectives should be SMART.

SMART Objectives

- ▶ **Specific:** What exactly are we trying to achieve?
 - ▶ Some questions to ask when determining objectives are WHY is this important, WHERE the improvement takes place, WHAT are the conditions and limitations involved?
- ▶ **Measurable:** Define the physical manifestation of the objective; define concrete evidence. Determine what will be tracked and how often to measure progress.
 - ▶ What are the metrics that can demonstrate effectiveness?
- ▶ **Attainable:** Don't over commit. Set a target that is reasonable and attainable.
 - ▶ Also consider available resources, time, and costs associated with attaining the objective.
- ▶ **Relevant:** Why does this matter?
 - ▶ Develop objectives that are relevant to your organization and mean something to your team and location. Engage employees where possible.
- ▶ **Timely:** Set a defined timeline that is realistic.
 - ▶ Can be for a year or can be for a longer period of time



Collecting Data



- ▶ The M in SMART is Measurable
- ▶ In order to set goals, we need data to tell us where we are. You have to know where you are to determine where you want to go.
- ▶ Determine what kind of data makes sense for what your goals are. 6 months? 1 year?
- ▶ Money: There are going to be upfront costs for both collecting the data, and for setting goals
 - ▶ For example: Recycling costs money; bins for the office, transportation costs, processing costs, etc.

“But it COSTS too much!”

- ▶ Cost savings can be tracked, but not all Environmental Objectives will lead to savings.
- ▶ But... Saving money isn't the goal of an EMS.
- ▶ There won't always be savings – so what's in it for the organization?

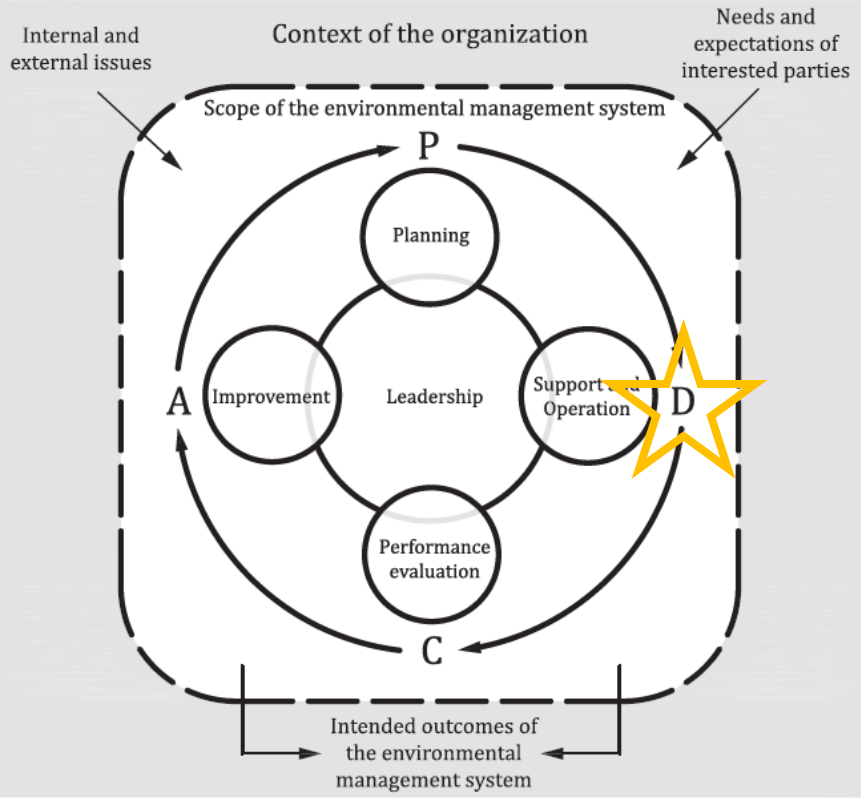




Actions to Achieve Objectives

Plan – Do – Check - Act

▶ Performing actions is DOING – ACTION!



Actions to Achieve Objectives

- ▶ Actions should support your objectives and be relevant to the organization's environmental policy
- ▶ Actions should be ambitious and impactful, yet realistic and attainable
- ▶ Actions should involve all relevant stakeholders

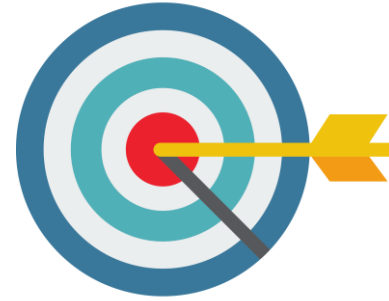


Examples of Objectives

- ▶ Reduce waste from routine operations by 25 percent by 2030, using a 2015 baseline.
- ▶ Recycle 45 percent of wastes from all operations by 2028 and 50 percent by 2030.
- ▶ Reduce fleet petroleum consumption by 20 percent by 2030, using a 2020 baseline.
- ▶ Ensure that 75 percent of new light-duty vehicles purchased each year are alternative-fuel vehicles.

Examples of Actions

- ▶ Reduce waste from routine operations by 25 percent by 2030, using a 2015 baseline.
 - ▶ Implement recycling of film wrap
 - ▶ Compost food waste (in food manufacturing)
- ▶ Reduce fleet petroleum consumption by 20 percent by 2030, using a 2020 baseline.
 - ▶ Investigate natural gas powered fleet vehicles
 - ▶ Replace up to 5 trucks in initial year of EMS
 - ▶ Phase out vehicles older than 15 years by end of calendar year.



Planning to Achieve Objectives

- ▶ What will be done? ACTIONS!
- ▶ What resources will be required?
- ▶ Who will be responsible?
- ▶ When will it be completed?
- ▶ How will the results be evaluated?

Environmental Objective #1 --- Landfill Waste Reduction								
<p>The objective is to reduce solid waste to landfill by 10%.</p> <p>Baseline: Final FY18 --- 70% of waste to landfill</p> <p>This objective will be completed by this date: 7/1/2019</p>								
Planning Actions to Achieve Environmental Objectives								
Action Number	What	Resources	Who	When	Expected Completion Date	Results	Status of Completion	Comments on Progress
	<i>Description of Activity</i>	<i>Description of Resources Required --- Financial, Capital, Personnel, Time, etc.</i>	<i>Responsible Party</i>	<i>Date Initiated</i>		<i>Method to Evaluate Effectiveness of Actions</i>		
1	Implement cross-department waste management team	Plant leadership buy-in, Environmental Supervisor, Maintenance Supervisor	Sally Soapbox	Jun-18	Aug-18	Gather information for last years waste total (tonnes), evaluate current waste generation and management practices		First meeting scheduled for August 2018
2	Select recycling vendor	Environmental Supervisor, Maintenance Supervisor	Joe Schmoer	Jun-18	Aug-18	Vendor is selected that is under budget, containers in place by completion date		Reviewing 3 local vendors --- Waste Management, Recycle Plus, Green Leaf, etc. Discussions for

**Let's do some examples
together...**

Objectives and Actions

Objective:

Decrease water consumption by 5% this year.

Objectives and Actions

Objective:

Decrease water consumption by 5% this year.

Actions:

0-Establish a baseline

\$-Reduce pressure on water hoses throughout the facility.

\$\$-Install low-flow toilets in all bathrooms.

\$\$\$-Implement a graywater system.



Objectives and Actions

Objective:

Decrease waste sent to landfill by 15% this year.

Objectives and Actions

Objective:

Decrease waste sent to landfill by 15% this year.

Actions:

0-Establish a baseline

- 🕒-Recycle all paper products in the office.
- 🕒🕒-Recycle wood from broken pallets.
- 🕒🕒🕒-Identify recipient for unusable raw material.



Objectives and Actions

Objective:

Increase energy efficiency by 2% this year.

Objectives and Actions

Objective:

Increase energy efficiency by 2% this year.

Actions:

0-Establish a baseline

\$-Replace all incandescent lightbulbs with LED bulbs.

\$\$-Insulate hot water pipes.

\$\$\$-Identify alternative green power sources.



Objectives and Actions

Objective:

Reduce our carbon footprint by 10% over the next 5 years.

Objectives and Actions

Objective:

Reduce our carbon footprint by 10% over the next 5 years.

Actions:

0-Establish a baseline

🕒🕒-Implement a telecommuting policy for employees

\$\$-Replace diesel-powered equipment with electric

??-Pursue renewable energy generation



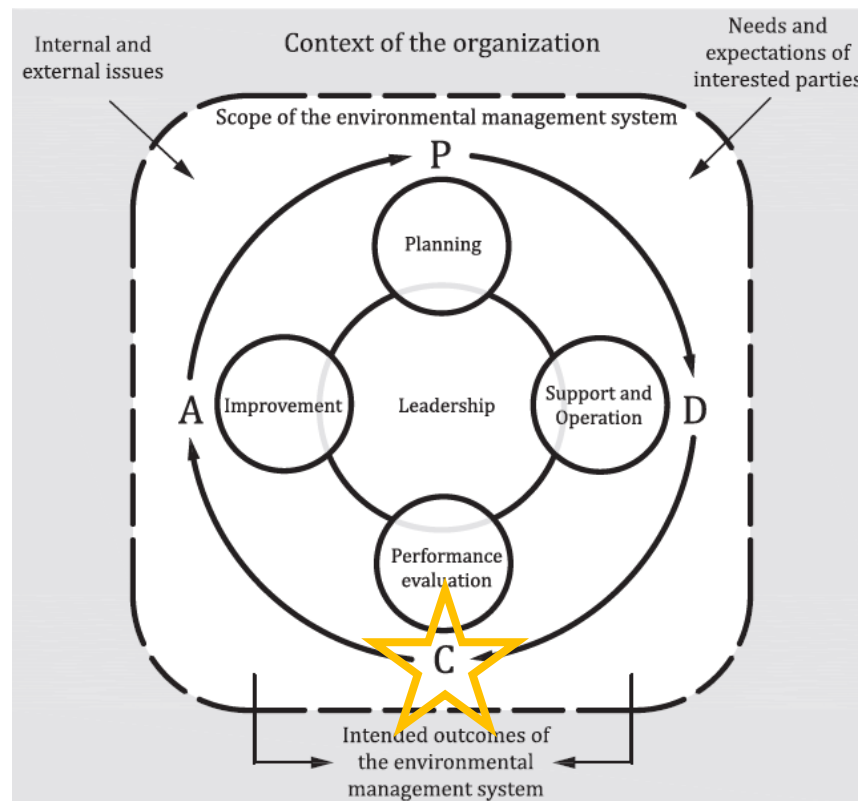
So now what?



- ▶ 1) Perform the Actions!
 - ▶ For example, you've decided to do this. So how are you following up on that?
 - ▶ Have you established a vendor? Have you scheduled so it doesn't impact manufacturing?
 - ▶ How are you monitoring energy consumption based on lights alone
- ▶ 2) Actions have to be measurable & monitorable – are you tracking progress? How often?
- ▶ 3) How's it going?

Plan – Do – Check - Act

- ▶ Time to Check! This can be a formal audit, but in this case, we are just seeing how it's going on performing our actions.



**What if we aren't trending
in the right direction?**

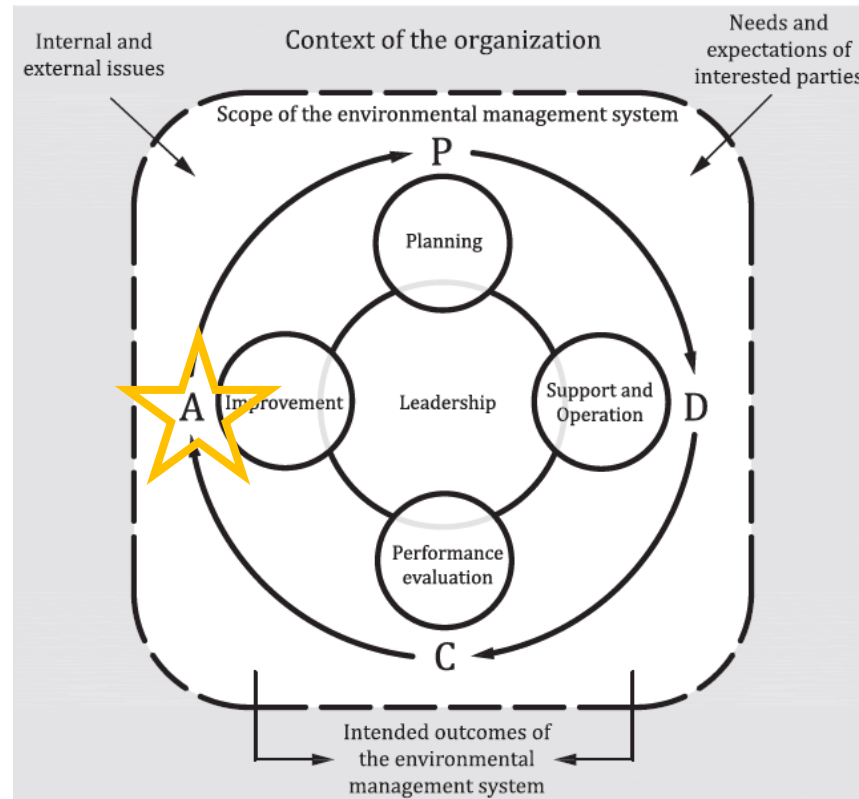
Are the Actions sufficient?

- ▶ Identify what went wrong
 - ▶ Resource gaps
- ▶ How to discuss with your ISO team
- ▶ How to discuss with leadership
- ▶ Setting more achievable actions for your team vs stretch goals
- ▶ Actions can be changed! They live!



Plan – Do – Check - Act

- ▶ Then we come up with how to do better.



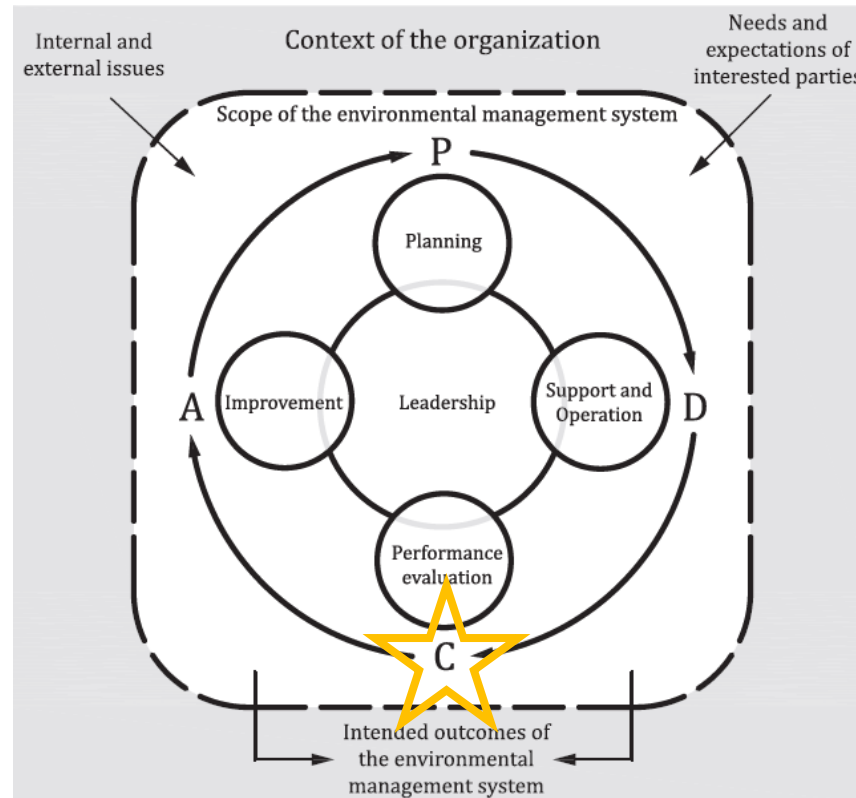
Improvement can be simply editing the actions to be more SMART!



Lead into Auditing

Plan – Do – Check - Act

- ▶ Back to the Checking – this is Auditing!
- ▶ Section 9.0 – Performance Evaluation



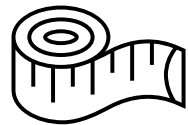
From An Auditor's Perspective

- ▶ As an auditor, you will be looking to see...
- ▶ Objectives
 - ▶ Are they SMART? Relevant to the Organization?
- ▶ Actions
 - ▶ Are you performing the actions? Are they making a dent in your objectives?
- ▶ How much data do you have?
 - ▶ Can't audit how an organization did on objectives if they are only 6 months into a 1-year plan



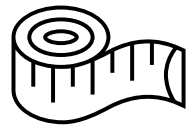
Being Audited

- ▶ “Did you do what you say you’re going to do?”
 - ▶ Did you monitor and measure to determine if you met your objectives?
 - ▶ If your objective was to increase energy efficiency, did you reduce energy usage? How did you do?
 - ▶ According to the standard, did you record these things? (The organization shall retain appropriate documented information as evidence of the monitoring, measurement, analysis and evaluation results)



Next Time...

- ▶ Survey results have indicated that Auditing is of interest
- ▶ Please fill out the survey that we will send shortly after this meeting and let us know how we did, and what you want to hear next time. We really do care!





Questions??

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