

EMS In Depth: Objectives & Targets and Environmental Management Programs Workshop

**Iowa Department of Natural Resources
Ankeny, Iowa
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Welcome

- Facilitator Introduction
- Logistics
- Workshop Content and Materials
- Introductions of Attendees
 - What is your name?
 - Where do you work?
 - What is your title and job responsibilities?
 - What experience do you have with EMS?
 - What do you hope to gain from this workshop?



EMS Refresher

What IS an EMS?

- Environmental Management System
- Similar to any other management system
- Method for carefully and deliberately controlling performance (i.e., processes, procedures, and programs)
- Integrated within an organization 
- Used to ensure an organization can fulfill tasks and achieve goals
- Continual improvement



EMS Refresher

What IS NOT an EMS?

- Disorganized approach to managing performance
- Informal and undocumented
- Detached environmental responsibilities
- Entirely focused on compliance
- Flawless



EMS Refresher

What are Some Benefits of an EMS?

- Reduced influences on the environment
- Improved environmental compliance
- Enhanced public image
- Cost savings
- Reduced risks
- Improved employee satisfaction



EMS Refresher

What are the Key Elements of an EMS?

- Environmental policy
 - Overall intentions
- Planning
 - Aspects and Impacts
 - Legal and other requirements
 - **Objectives, targets and programme(s)**
- Implementation and operation
- Checking
- Management review



Environmental Objectives & Targets

What are Environmental Objectives & Targets?

- ISO 14001:2004 definitions
 - An objective is an “overall environmental goal, consistent with the environmental policy, that an organization sets itself to achieve”
 - A target is a “detailed performance requirement, applicable to the organization or part thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives”



Environmental Objectives & Targets

What are Environmental Objectives & Targets?

- Layman's terms
 - An objective is the overall environmental change your organization wants to achieve
 - A target is the measurable outcome of the change



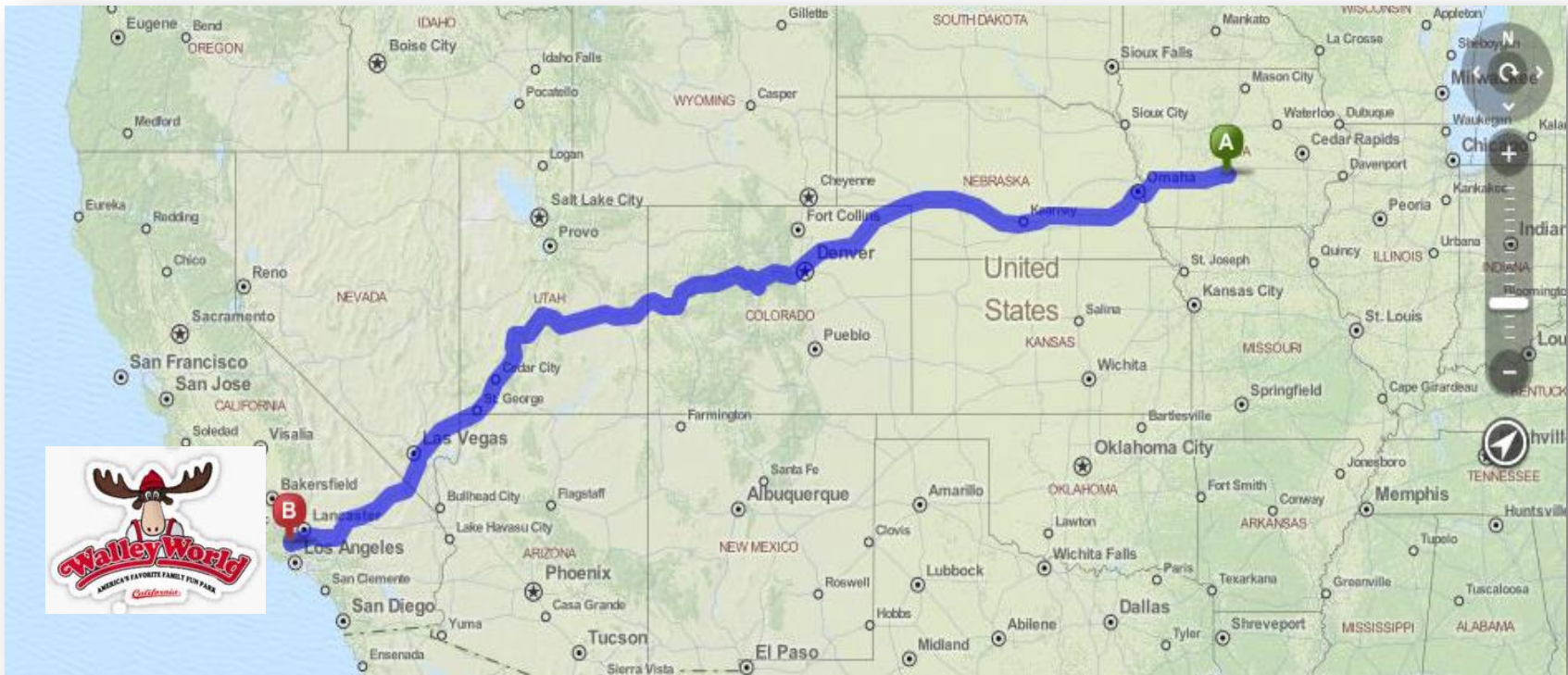
Environmental Objectives & Targets

What are Environmental Objectives & Targets?



Environmental Objectives & Targets

What are Environmental Objectives & Targets?

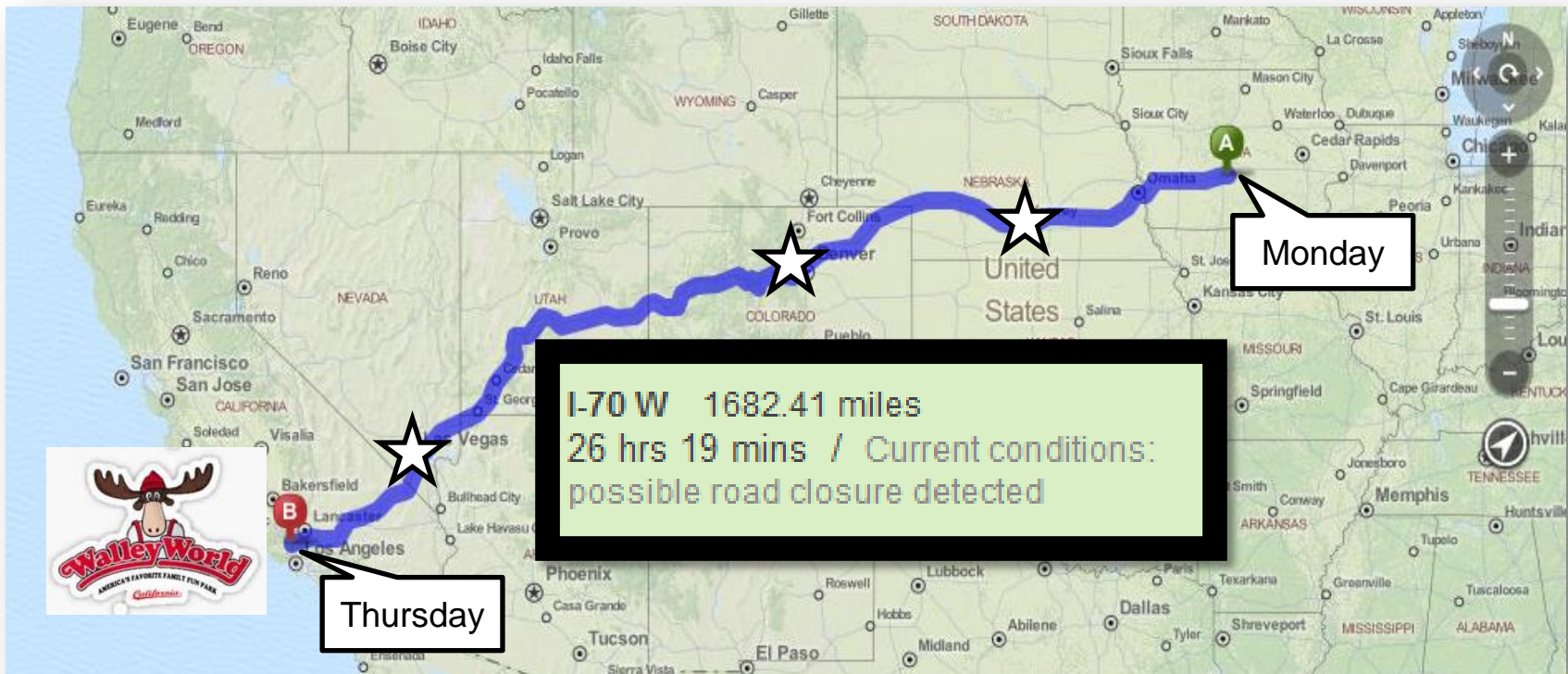


Objective



Environmental Objectives & Targets

What are Environmental Objectives & Targets?



Target



Environmental Objectives & Targets

What are Environmental Objectives & Targets?



Objective -> "The Big Picture" -> "30,000 Foot View"



Environmental Objectives & Targets

What are Environmental Objectives & Targets?



Target -> Zoomed-In View -> Site/Facility Level



Environmental Objectives & Targets

Developing, Implementing, and Maintaining

- Requirements
 - Documented
 - Measurable (where practicable)
 - Consistent with Environmental Policy
 - Account for Significant Environmental Aspects
 - Consider technological options, financial, operational, and business requirements, and views of interested parties



Environmental Objectives & Targets

Developing, Implementing, and Maintaining

- Typical Practices
 - Developing
 - Initiated by “core” EMS team / senior management
 - Use significant aspects & impacts list
 - Identify ways to reduce / increase environmental impacts with focus on continual improvement
 - Outside conversations and data gathering
 - Draft, review, modify, and finalize
 - Iterative and lengthy process



Environmental Objectives & Targets

Developing, Implementing, and Maintaining

- Typical Practices
 - Implementing
 - Approval
 - Managed by the “core” EMS team
 - Responsibilities assigned
 - Departments / groups / outside organizations
 - Team building
 - Communicated within the organization and to appropriate stakeholders



Environmental Objectives & Targets

Developing, Implementing, and Maintaining

- Typical Practices
 - Maintaining
 - Coordinated by the “core” EMS team
 - Routine reviews of progress
 - Communication
 - Adjustments, as needed



Environmental Objectives & Targets

Examples of Strong & Weak Os & Ts

- Characteristics of Strong Os & Ts
 - Objectives
 - Directly linked to significant aspects & impacts
 - “Big picture”
 - Focused on desired environmental change
 - Brief, clear, concise



Environmental Objectives & Targets

Examples of Strong & Weak Os & Ts

- Characteristics of Strong Os & Ts
 - Targets
 - Directly linked to objectives
 - Measurable
 - Include baselines



Environmental Objectives & Targets

Examples of Strong & Weak Os & Ts

- Characteristics of Weak Os & Ts
 - Objectives
 - Not linked to significant aspects & impacts
 - Detailed / wordy
 - Task-related
 - No direct environmental connection



Environmental Objectives & Targets

Examples of Strong & Weak Os & Ts

- Characteristics of Weak Os & Ts
 - Targets
 - Not linked to objectives
 - Task-related
 - Not measurable
 - No baselines



Environmental Objectives & Targets

Examples of Strong & Weak Os & Ts

Great Iowa Solid Waste Agency								
Objective								
<i>Increase e-waste recycling within planning area</i>		Significant Aspects						
Target	Metric	Yard Waste	Water Quality	Greenhouse Gas Emissions	Recycling Services	Household Hazardous Materials	Environmental Education	Other
<i>Increase CY2015 e-waste recycling 5% compared to CY2014</i>	<i>Tonnage delivered</i>				X		X	



Environmental Objectives & Targets

Examples of Strong & Weak Os & Ts

Acme Mfg., Inc.							
Objective							
<i>Enhance efficiency of wastewater treatment plant</i>							
Target							
<i>Reduce solid wastes</i>							



Environmental Objectives & Targets

Examples of Strong & Weak Os & Ts

Acme Mfg., Inc.						
Objective						
<i>Reduce Greenhouse Gas Emissions</i>		Significant Aspects				
Target	Metric	Air Emissions	Stormwater Discharges	Spills	Waste Generation & Disposal	Wastewater Generation & Disposal
<i>Decrease CY2015 gallons of fuel used by 20% compared to CY2014</i>	<i>Gallons of fuel used</i>	X				



Environmental Objectives & Targets

Examples of Strong & Weak Os & Ts

Acme Mfg., Inc.							
Objective							
<i>Reduce degradation of land quality</i>		Significant Aspects					
Target	Metric	Air Emissions	Stormwater Discharges	Spills	Waste Generation & Disposal	Environmental Education	Wastewater Generation & Disposal
<i>Decrease solid waste generated by 20 tons</i>	<i>Shipments of hazardous waste</i>				X	X	



Environmental Objectives & Targets

Helpful Hints

- Relearn / Rethink
- Coincide with other planning processes (e.g., budgeting)
- Correlate to Environmental Policy and Significant Aspects & Impacts
- Start with existing / planned organizational goals
- Talk with other groups / departments within your organization
- Talk with other companies
- Search the web



Environmental Objectives & Targets

Helpful Hints

- Brainstorm with a group
 - Variety of people / experiences
 - Don't get too many "cooks in the kitchen"
 - Don't overthink / over-analyze
- Identify multiple potential Os & Ts for Significant Aspects & Impacts



Environmental Objectives & Targets

Helpful Hints

- Be practical
- Don't overcomplicate them
- Do drafts then finalize
- Get approval
- Review and update on a monthly basis
- Communicate
- Adjust, as needed, for good reasons and document why
- Continual improvement



Environmental Objectives & Targets

Developing Objectives & Targets Exercise and Networking



Environmental Management Programs

What are Environmental Management Programs?

- Layman's terms
 - Programs are the specifics for achieving an objective and target



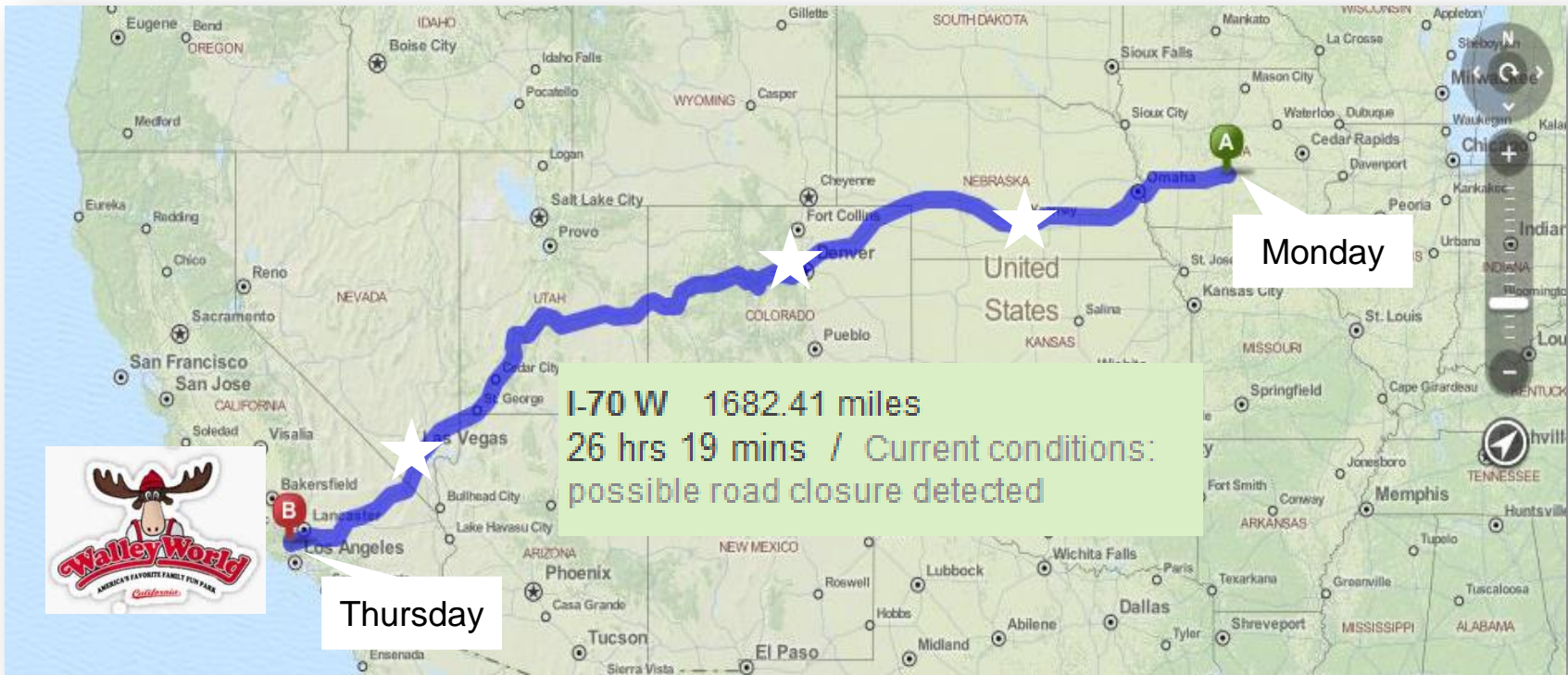
Environmental Management Programs

What are Environmental Management Programs?



Environmental Management Programs

What are Environmental Management Programs?



Objective & Target



Environmental Management Programs

What are Environmental Management Programs?

		Download Free App
	Des Moines, IA	
	1. Start out going north on 2nd Ave toward Watson Powell Jr Way. Map	0.5 Mi 0.5 Mi Total
 	2. Merge onto I-235 W via the ramp on the left. Map	8.8 Mi 9.2 Mi Total
 	3. I-235 W becomes I-80 W (Crossing into Nebraska). Map	474.9 Mi 484.1 Mi Total
 	4. Merge onto I-76 W via EXIT 102 on the left toward Denver (Crossing into Colorado). Map	186.8 Mi 671.0 Mi Total
 	5. I-76 W becomes I-70 W (Crossing into Utah). Map	501.8 Mi 1172.7 Mi Total
 	6. Merge onto I-15 S via the exit on the left toward Las Vegas (Passing through Arizona, then crossing into Nevada). Map	246.6 Mi 1419.3 Mi Total
 	7. Take I-15 (EXPRESS) S. Map	1.6 Mi 1420.9 Mi Total

Environmental Management Programs



Environmental Management Programs

Developing, Implementing, and Maintaining

- Requirements
 - Designation of responsibility
 - Means
 - Time-frame



Environmental Management Programs

Developing, Implementing, and Maintaining

- Typical Practices
 - Developing
 - Initiated by “core” EMS team
 - Outside conversations, data gathering, and negotiations
 - Details vary by organization
 - Draft, review, modify, and finalize
 - Iterative and lengthy process



Environmental Management Programs

Developing, Implementing, and Maintaining

- Typical Practices
 - Implementing
 - Managed by the “core” EMS team
 - Individual / team responsibilities assigned
 - Communicated within the organization and to appropriate stakeholders
 - Execution begins
 - Tasks carried out by individuals / teams



Environmental Management Programs

Developing, Implementing, and Maintaining

- Typical Practices
 - Maintaining
 - Execution continues
 - Coordinated by the “core” EMS team
 - Routine reviews of progress
 - Communication
 - Adjustments, as needed



Environmental Management Programs

Examples of Strong & Weak Programs

- Characteristics of Strong Programs
 - Documented
 - Directly linked to targets
 - Includes:
 - Step-by-step instructions
 - Identification of individuals and needed resources
 - Incremental deadlines
 - Benchmarking, as needed
 - Step(s) for reviewing progress
 - Notes / comments



Environmental Management Programs

Examples of Strong & Weak Programs

- Characteristics of Weak Programs
 - Undocumented
 - Not linked to targets
 - Vague
 - Disorderly



Environmental Management Programs

Examples of Strong & Weak Programs

EMP	Deadline	Responsibility	Key Resources	Notes / Status
1	1/10/2014	Chuck W.	Personnel and records	Completed on 1/6/14. CY2013 number of illegal dumping occurrences was 16
2	3/31/2014	Mary D.	Personnel. Local law enforcement	Completed on 3/21/14
3	3/31/14 - 12/31/14	Sgt. Smith	Local law enforcement	Completed 3/31/14 - 12/31/14. Local law enforcement routinely patrolled area and enforced violations of illegal dumping
4	4/30/2014	Fred M.	Money. Personnel. Great Iowa Broadcasting. Local newspapers. Local law enforcement	Completed on 4/28/14. Modified signs. Developed brochures, flyers, radio ads, and newsprint
5	5/1/2014	Carla E.	Personnel	Completed on 5/1/14. Signs posted at yard waste site and other key locations with access to site
6	5/30/2014	Fred M.	Personnel. Local law enforcement	Completed on 5/28/14. Distributed brochures and flyers within agency and throughout local law enforcement's outreach
7	6/30/2014	Fred M.	Money. Great Iowa Broadcasting. Local newspapers	Completed on 6/29/14. Advertised radio ads throughout the day of 6/23/14. Advertised newsprint within 6/29/14 editions of local newspapers
8	8/31/2014	Fred M.	Personnel. Local law enforcement	Completed on 8/29/14. Distributed brochures and flyers within agency and throughout local law enforcement's outreach
9	9/30/2014	Fred M.	Money. Great Iowa Broadcasting. Local newspapers	Completed on 9/28/14. Advertised radio ads throughout the day of 9/26/14. Advertised newsprint within 9/28/14 editions of local newspapers
10	1/9/2015	Chuck W.	Personnel and records	Completed on 1/5/14. CY2014 number of illegal dumping occurrences was 10



Environmental Management Programs

Examples of Strong & Weak Programs

Great Iowa Solid Waste Agency								
Objective								
<i>Increase e-waste recycling within planning area</i>			Significant Aspects					
Target	Metric	Yard Waste	Water Quality	Greenhouse Gas Emissions	Recycling Services	Household Hazardous Materials	Environmental Education	Other
<i>Increase CY2015 e-waste recycling 5% compared to CY2014</i>	<i>Tonnage delivered</i>				X		X	
EMP		Responsibility	Notes / Status					
1	Develop e-waste collection event strategy / plan with Pella Corp. and Midwest Electronics Recovery	Core Team						
2	Develop communication material(s) regarding disposal and e-waste collection event	Communication Dept.						
3	Host an e-waste collection event with Pella Corp. and Midwest Electronics Recovery	HR						



Environmental Management Programs

Helpful Hints

- Relearn / Rethink
- Talk with other groups / departments within your organization
- Talk with pollution prevention services
- Talk with other companies
- Search the web



Environmental Management Programs

Helpful Hints

- Brainstorm with a group
 - Variety of people / experiences
 - Don't get too many "cooks in the kitchen"
 - Don't overthink / over-analyze
- Be practical
- Don't overcomplicate them
- Use organizational-standards for level of detail
- Do SMART evaluations



Environmental Management Programs

Helpful Hints

- Document
- Do drafts then finalize
- Get approval
- Review and update on a monthly basis
- Communicate
- Adjust, as needed, for good reasons and document why
- Continual improvement




Environmental Management Programs

Environmental Management Programs Exercise and Networking



Open Discussion

- Questions??
- ISO 14001 Revision
- Attendance sheet
- Evaluations
- Thank you for attending
- Contact SGE anytime
 - Cory Sander @ 614-917-3074
 - Cory@SanderGroupEnv.com
- Stay around for additional questions or comments and  networking
- Hope to see you or talk to you again soon

