

National Centers for Coastal Ocean Science

Environmental Management System
Management Review
November 17, 2005



Summary of Environmental Management Systems EMS

Step 1: Implement the System

Design the Process for -

- Identifying Risks
- Managing/Controlling Risks
- Assessing Performance
- Integrating Improvements

Develop Procedures for -

- Communication
- Training
- Contracting
- Procurement
- Recordkeeping
- Assessing, etc

Step 2: Start Using the System



NCCOS EMS Implementation To-date

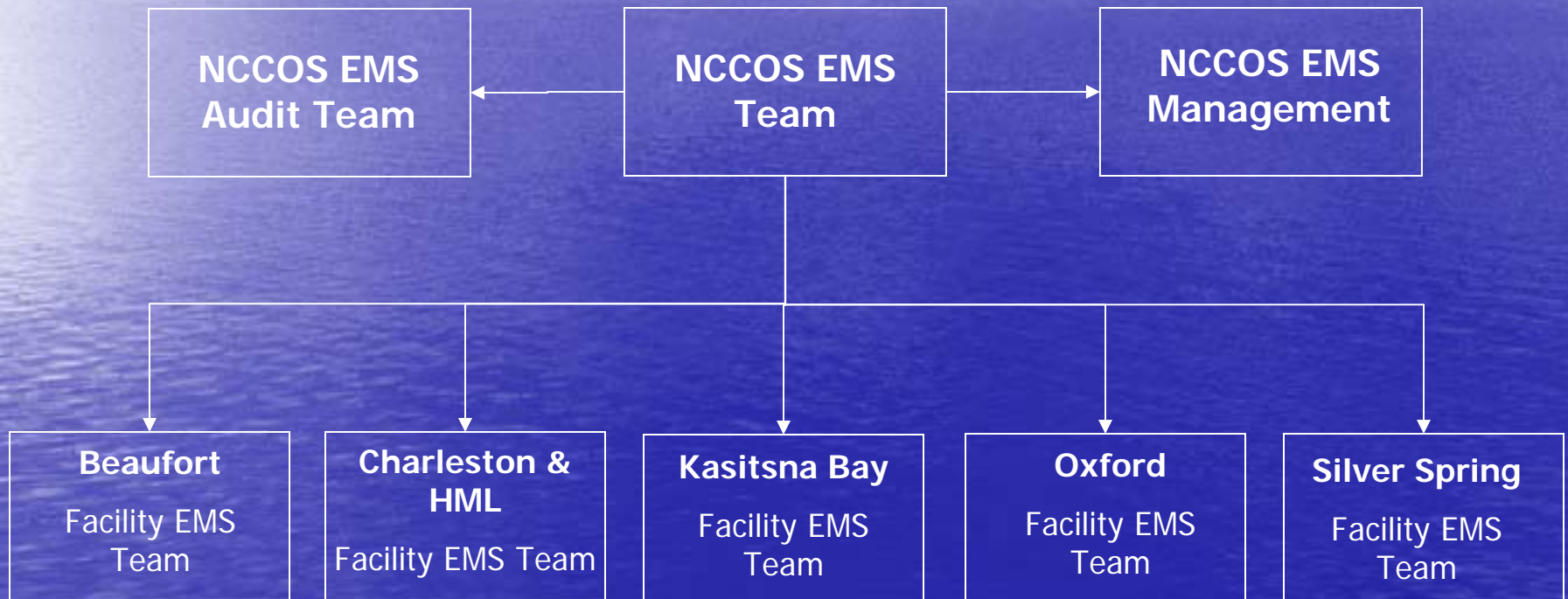
Accomplishments to Date

1. Established an EMS team for NCCOS
2. Identified all NCCOS's activities and operations with significant environmental aspects
3. Established work instructions/controls for all activities and operations with significant environmental aspects
4. Set objectives to better manage significant environmental aspects
5. Developed programs and plans to manage objectives and controls
6. Conducted training for all employees
7. Developed website to disseminate information to stakeholders
8. Conducted an internal audit

Future Accomplishments

9. **Conduct Management Review**
10. **Complete Self-Declaration audit**

NCCOS EMS Structure



NCCOS EMS Team

EMS Management Team

Management Team	Director of NCCOS Deputy Director of NCCOS Center Directors	Conduct the management review to determine the suitability, adequacy and effectiveness of the NCCOS EMS program. Authorize changes NCCOS-wide. Center Directors authorize changes at the Facility level.
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EMS Team

Environmental Management Representative NOS (Management Liaison)	Line Environmental Compliance and Safety Officer (LECO)	Participate as a representative for NOS, to communicate pertinent issues between NOS and NCCOS. Liaison with senior managers
Environmental Management Representative NCCOS	EHS Representative CCEHBR & HML	Coordinate the NCCOS EMS Team, including meetings, key implementation activities. Attend management review to present EMS summary
EMS Team Representatives	EHS Officer Beaufort EHS Officer Kasitsna Bay EHS Officer Charleston & HML EHS Officer Oxford EHS Officer Silver Spring	Support key EMS activities including communication, training, document control auditing, compliance checking, establishing objectives and targets and assessing significance of aspects. EMS design, implementation and oversight to ensure conformance to NOAA/NCCOS EMS Standards and Program.

EMS Audit Team

Audit Lead	Rotational Assignments by the EMS Team	Lead the NCCOS internal audit
Audit Team Member	Rotational Assignments by the EMS Team	Support the NCCOS internal audit

NCCOS Significant Environmental Aspects

Significant Environmental Aspects

1. Air Emissions
2. Cultural Resources
3. Hazardous Materials
4. Hazardous Waste
5. Land
6. Medical Waste
7. Natural Resources
8. Noise
9. Special Waste
11. Toxic Substances
12. Waste Water
13. Water Quality
14. Solid Waste

The ways NCCOS activities and operations interact with the environment



NCCOS Environmental Objectives and Targets

NCCOS Objectives FY2006-2009	NCCOS Targets FY2006
1. Manage the use of Natural Resources so as to support NCCOS's mission and balance society's environmental, social, and economic goals	<ul style="list-style-type: none">• Baseline NCCOS Lab chemicals by hazard class, volume, and cost• Baseline NCCOS Lab core waste streams by hazard class, volume, and cost• Identify potential list of substitute materials and establish a plan for evaluation
2. Build capacity internally and in the private, local, state, and tribal sectors through education, technical assistance, and technology for effective natural resource and environmental management	<ul style="list-style-type: none">• Identify environmental management educational deficiencies (NCCOS employees and partners)• Develop programs to address educational deficiencies
3. Understand NCCOS cradle to grave environmental costs and ensure that environmental requirements of NCCOS operations are appropriately considered in the allocation of resources and development of policy	<ul style="list-style-type: none">• Establish NOAA facilities accounting task codes for NCCOS facilities• Communicate the definition and appropriate use of NOAA facilities accounting task codes to facility employees

Management Programs and Improvement plans

Management Programs	Improvement Plans
<p data-bbox="142 459 838 505">Chemical Management Program</p> <p data-bbox="81 562 857 656">Target 1: Baseline NCCOS Lab chemicals by hazard class, volume, and cost</p> <p data-bbox="81 714 850 856">Target 2: Identify potential list of substitute materials and establish a plan for evaluation</p>	<p data-bbox="1112 459 1669 505">Training Improvement Plan</p> <p data-bbox="935 562 1846 705">Target 1: Identify environmental management educational deficiencies (NCCOS employees and partners)</p> <p data-bbox="935 762 1684 856">Target 2: Develop programs to address educational deficiencies</p>
<p data-bbox="173 936 807 982">Waste Management Program</p> <p data-bbox="81 1039 846 1182">Target 1: Baseline NCCOS Lab core waste streams by hazard class, volume, and cost</p>	<p data-bbox="969 936 1816 982">Resource Allocation Improvement Plan</p> <p data-bbox="935 1039 1800 1133">Target 1: Establish NOAA facilities accounting task codes for NCCOS facilities</p> <p data-bbox="935 1190 1792 1333">Target 2: Communicate the definition and appropriate use of NOAA facilities accounting task codes to facility employees</p>

NCCOS Internal Audit Findings

#	Classification	Description of Non-Conformity	EMS Element
1	Minor	The EMS at NCCOS is still dependent on just a few EMS team members at each facility. As the system matures, emphasis should be placed on system continuity regardless of people.	Roles and Responsibilities
2	Minor	Compliance and other competency training (such as regulatory required training) are given on a recurring basis; this forms the knowledge to perform work in an environmentally sound manner. Tracking of competency training at CCFHR needs improvement.	Training
3	Minor	Numerous work instructions are available at the EMS website, both generic and facility specific, but they are not yet integrated into day-to-day activities. Further emphasis on improving work instructions is required.	Operational Controls
4	Minor	Local procedures for communicating significant environmental aspects to contractors and suppliers were not available at Charleston or Beaufort.	Procurement
5	Minor	NOAA contracts managed from Kansas City are not integrated into the site-specific EMS. Contractors and suppliers are not aware of site-specific environmental issues.	Procurement

NCCOS Internal Audit Recommendations

#	Opportunity for Improvement	EMS Element
1	It was noticed during the audit interviews that NCCOS has already implemented or is considering adopting a number of important measures that can contribute to the mitigation of negative environmental impacts of its operations. These include: green building practices, permeable parking lots, use of hybrid vehicles and bio-diesel among others. These initiatives could be managed more effectively if incorporated into Environmental Management Programs, and progress tracked during management reviews.	EMPs
2	In future reviews of the EMS objectives and targets, NCCOS should consider including at least one objective and target specific to each facility.	Objectives and Targets
3	Although the EMS Awareness Training available online is very comprehensive and covers all the essential elements of an EMS, it could be improved by providing examples of how these concepts can be apply to specific job types or tasks.	Training
4	In Oxford and Beaufort, there is an Invasive Species Release Prevention Program. The accidental release of invasive species should be included in the list of aspects and have its significance determined and performance tracked as part of the EMS.	Environmental Aspects
5	The list of regulatory requirements is incomplete. Federal requirements has been identified and recorded, as well as NOAA requirements. A list of State legal requirements that apply to each individual facility is currently being developed and should be completed as soon as possible.	Legal and Other Requirements
6	Additional performance measures should be developed for each site to monitor progress towards achieving EMS objectives and targets.	Monitoring and Measuring

Corrective Action Plans (CAP) for Audit Findings

#	Description of Non-Conformity	EMS CAP
1	The EMS at NCCOS is still dependent on just a few EMS team members at each facility. As the system matures, emphasis should be placed on system continuity regardless of people.	The EMS Team should be broadened to include other functions such as HR, Budget, Training, Procurement, IT, research and facility level teams should be formalized, training provided (if necessary), procedures written and roles and responsibilities clearly defined.
2	Compliance and other competency training (such as regulatory required training) are given on a recurring basis; this forms the knowledge to perform work in an environmentally sound manner. Tracking of competency training at CCFHR needs improvement.	Continue to robust the existing system for tracking Competency Training at CCFHR.
3	Numerous work instructions are available at the EMS website, both generic and facility specific, but they are not yet integrated into day-to-day activities. Further emphasis on improving work instructions is required.	Plan and schedule training sessions on Work Instructions and update or modify work instructions to meet facility specific requirements.
4	Local procedures for communicating significant environmental aspects to contractors and suppliers were not available at Charleston or Beaufort.	Work Instruction EM.WS.2004 – CONTRACTING SPEC is a good start. Train Procurement professionals on their responsibilities, ensure appropriate steps are taken and monitor performance.
5	NOAA contracts managed from Kansas City are not integrated into the site-specific EMS. Contractors and suppliers are not aware of site-specific environmental issues.	Perform the Environmental Review Process (as described in the Work Instruction EM.WS.2004) even when the another NOAA office will be responsible for initiating the contract, and communicate the environmental specifications/ conditions that need to be integrated into contract provisions.

EMS Team Recommendations

NCCOS has implemented the EMS. Now it has to use it:

- EMS Team should implement all corrective actions from the internal audit and work toward this year's objectives and targets.
- NCCOS should be part of the NOAA EMS Team and should look for opportunities to communicate successes and lessons-learned to other NOAA groups.
- EMS Team should have monthly meetings by teleconference and face-to-face meetings quarterly.
- EMS Team should aim to better integrate the EMS into NCCOS operations.
- Management should continue check progress toward objectives via center director meetings
- The Management Team should announce NCCOS's success in implementing EMS and encouraging participation on the important road ahead.
- The EMS team will ensure that the NCCOS website is sufficient for EMS document control and communication needs and ultimately the success of the EMS. Facility intra-net sites must be developed for all facilities so that they can adequately manage EMS documentation.
- The EMS Team should be broadened to include other functions such as HR, Budget, Training, IT, research and facility level teams should be formalized.

Decisions for the Management Team

Key Decisions	EMS	Recommendations
Is the NCCOS EMS suitable given NCCOS mission and operations?	Is the Policy Suitable?	
	Are Objectives Suitable?	
	Are the EMS Teams Suitable Staff ?	
Is the NCCOS EMS adequate to achieve the policy and objectives?	Are there adequate financial resources available for environmental management?	
	Are there adequate technical resources on the EMS team?	
	Does the EMS team have access to adequate technology?	
Is the NCCOS EMS Effective at achieving the policy, objectives and supporting NCOOS Operations and Mission?	As the EMS been effectively implemented?	
	Will the EMS be effective at achieving the policy and objectives?	
	Will the EMS effectively assist NCCOS operations and mission?	
	Are metrics being used useful to management?	

Decisions for the Management Team

Key Decisions	Comments/Recommendations
General Comments and Other Recommendations	