



Environmental Management Systems in Academic Culture

One Institution's Approach

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Yale University

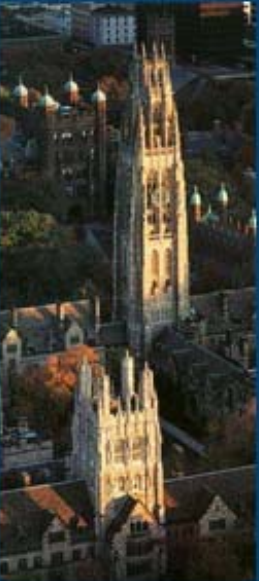
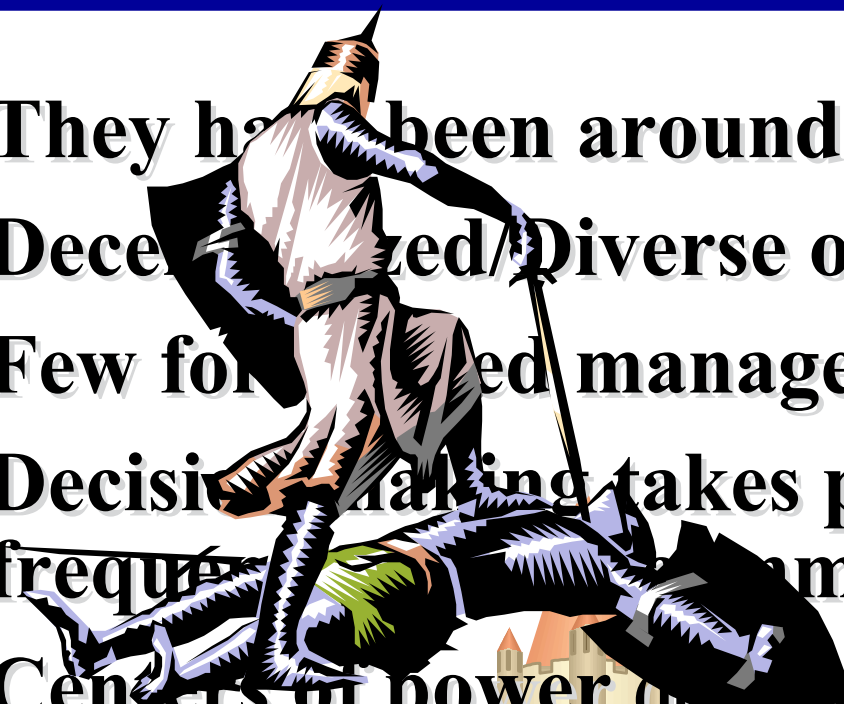
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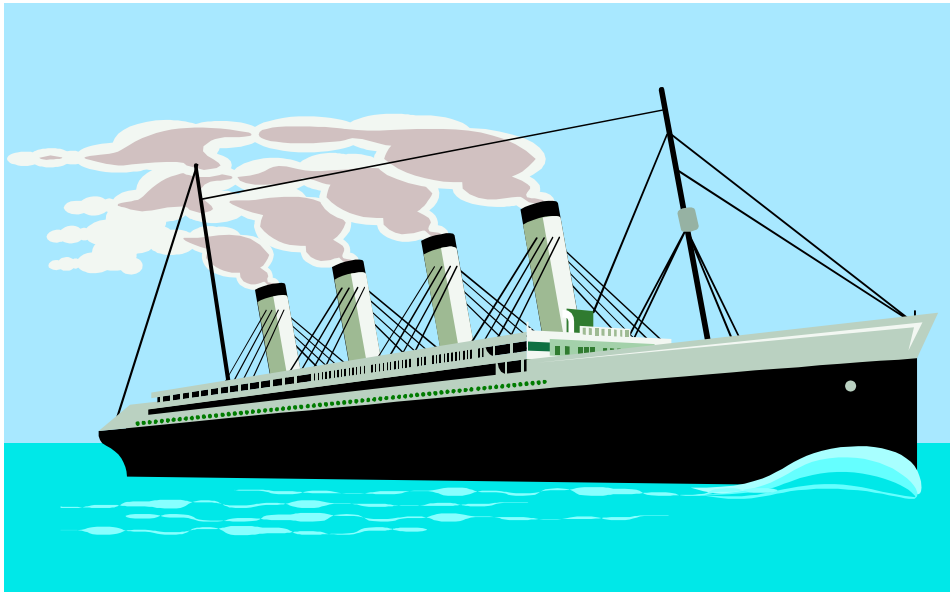
What is Unique About Colleges and Universities

- They have been around a long time
- Decentralized/Diverse operations
- Few formalized management systems
- Decision making takes place frequently in committees
- Centers of power (not always associated with management)



What is Unique About Colleges and Universities

- **Academic institutions have a lot of momentum and change course very slowly**



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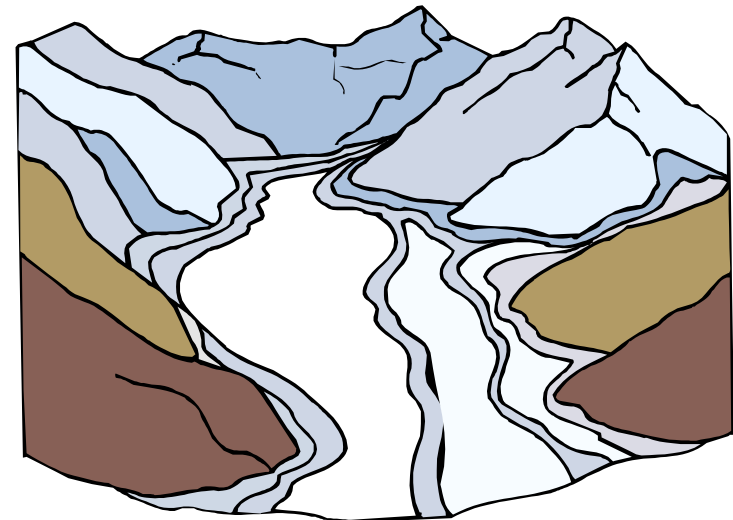


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What is Unique About Colleges and Universities

- **Academic institutions move at glacial speed**
 - study things carefully
 - don't like to make mistakes
 - risk takers are generally not rewarded

We move slowly with great momentum



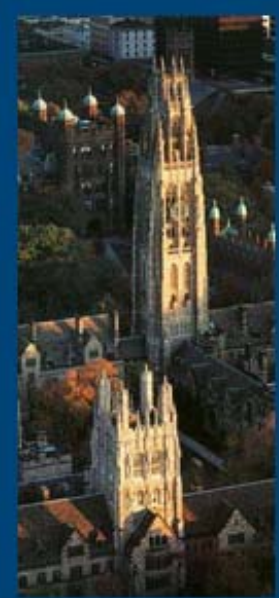
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EPA found common problems in environmental management in higher education settings:

- **No organizational infrastructure for compliance with environmental laws – locally and centrally**
- **No clear delineation of roles, responsibilities and accountability for compliance – locally and centrally**
- **No systems approach to environmental management**
- **Inadequate institutional knowledge of materials in use locally for compliance and emergency response**
- **Inadequate regulatory training of faculty, principal investigators, staff and students who manage hazardous waste, chemicals and other regulated materials**



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How Does One Create Change?

- I can tell you what not to do...



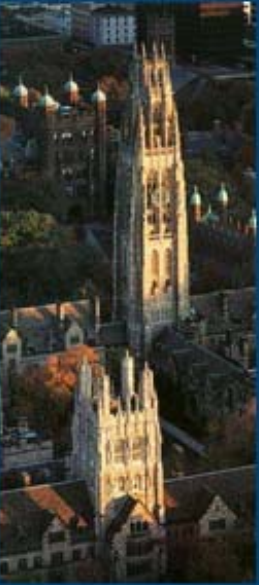
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How Does One Create Lasting Environmental Programs?

- **Get management's attention**
- **Find supporters and move slowly and methodically**
- **Be inclusive in decision making**
- **Start small and create some success**
- **Build on and leverage your successes**
- **Adapt to local needs**



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How Does One Create Lasting Environmental Programs?

Why is it that we often create very good programs only to see them fall apart?



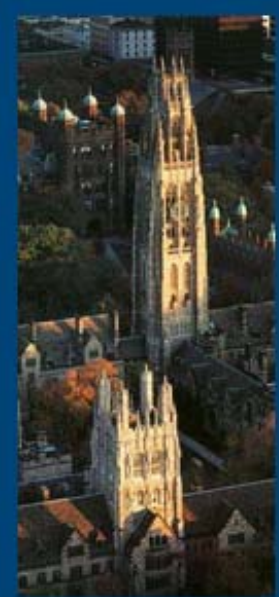
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How Does One Create Lasting Environmental Programs?

- **Why do things fall apart?**
 - Primary focus and responsibility is not environmental compliance
 - The environmental duties may conflict with other priorities
 - Individuals are overwhelmed and constantly prioritizing
 - The tasks (or number of them) appear overwhelming



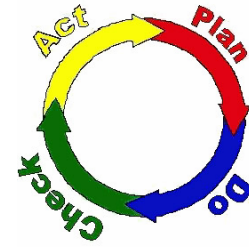
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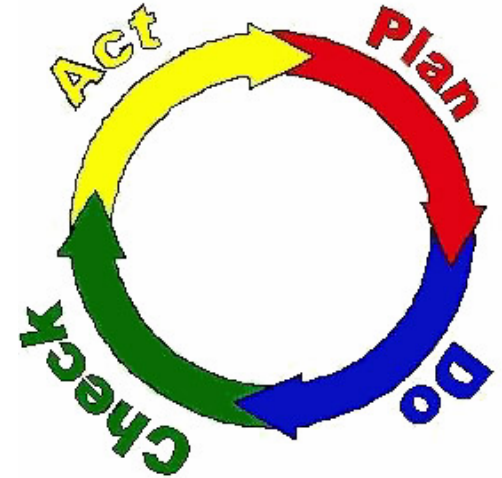
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Environmental Management Systems



- To move forward one must implement a management system that institutionalizes the change/program and can lead to continuous improvement.
- What we build should be able to continue on without us.

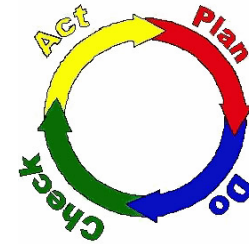


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Environmental Management Systems



- **What scares you the most when thinking about implementing an EMS?**

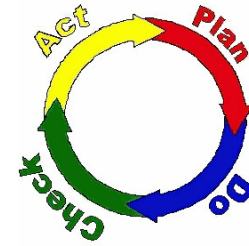


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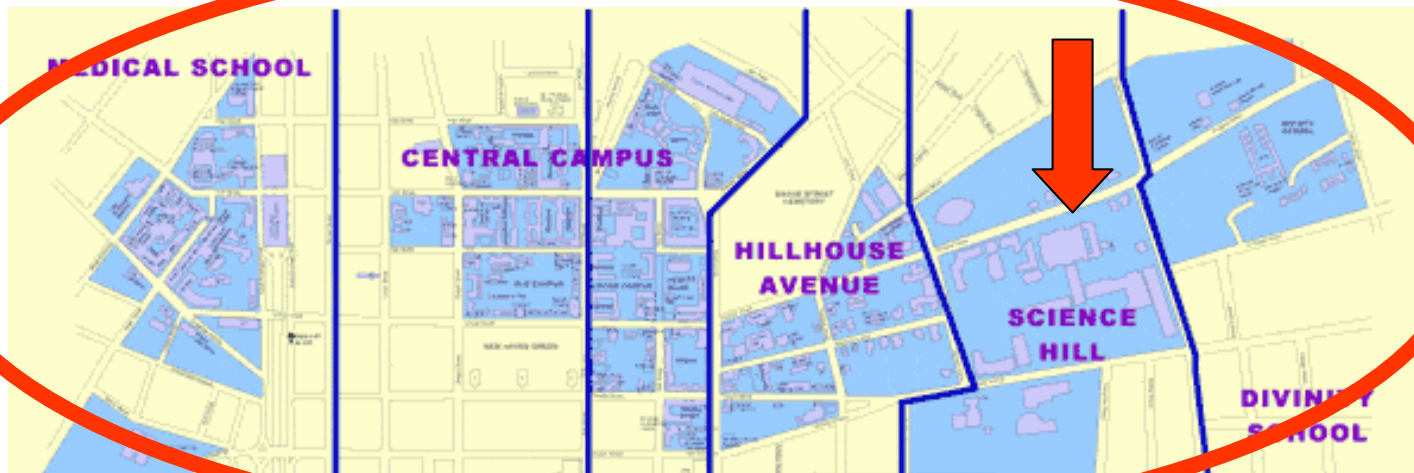


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Environmental Management Systems



- **The EMS Yale is developing is:**
 - focused on compliance
 - campus wide (not specific area)
 - limited in depth



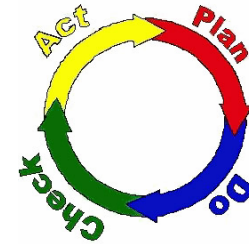
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What Does It Look Like?



- **Short Core Document (4 pages)**

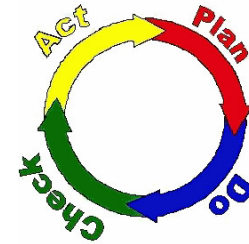
- Policy
- Planning Issues (global)
 - audits for environmental impacts/compliance
 - tracking of regulations/BMP
 - Goals and Objectives
- **Implementation and Operation**
- Communication with Internal and External Stakeholders
- Document Management (global)
- Emergency Preparedness and Response
- EMS Audit and Management Review of EMS



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What Does It Look Like?

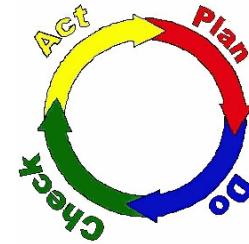
- **Implementation and Operation Program Specific Document (such as SPCC)**
 - Scope
 - Program specific policies
 - Program specific responsibilities
 - Inspections/monitoring
 - Handling of non-conformance
 - Recordkeeping
 - Information and training
 - Plan review and update
 -



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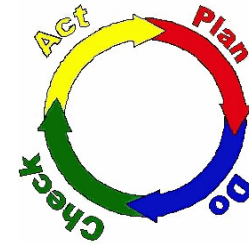
- I know what your thinking....



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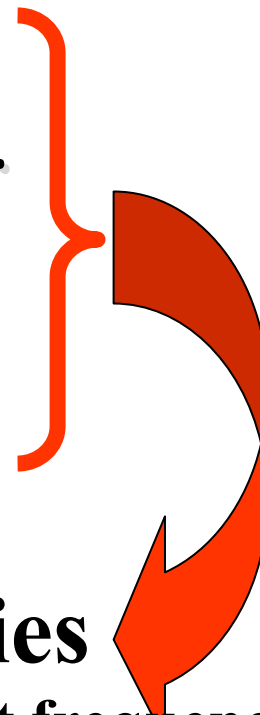
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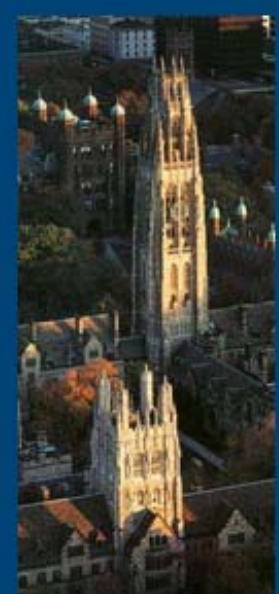
What Does It Look Like?

For each specific program take the:

- applicable regulations
- any regulatory required plan or program
- implementation and operation program specific document



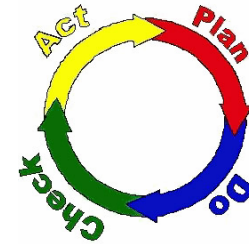
Database of Tasks/Activities
(Who takes what action, where, at what frequency)



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What Does It Look Like?

Database of Tasks/Activities

(Who takes what action, where, at what frequency)

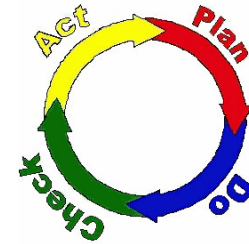
- **SPCC**
- **Laboratory RCRA**
- **Non-laboratory RCRA**
- **Underground Storage Tanks**
- **Air Discharges**
- **Water Discharges**
- **PCB**
- **EPCRA**



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What Does It Look Like?

Database of Tasks/Activities -SPCC

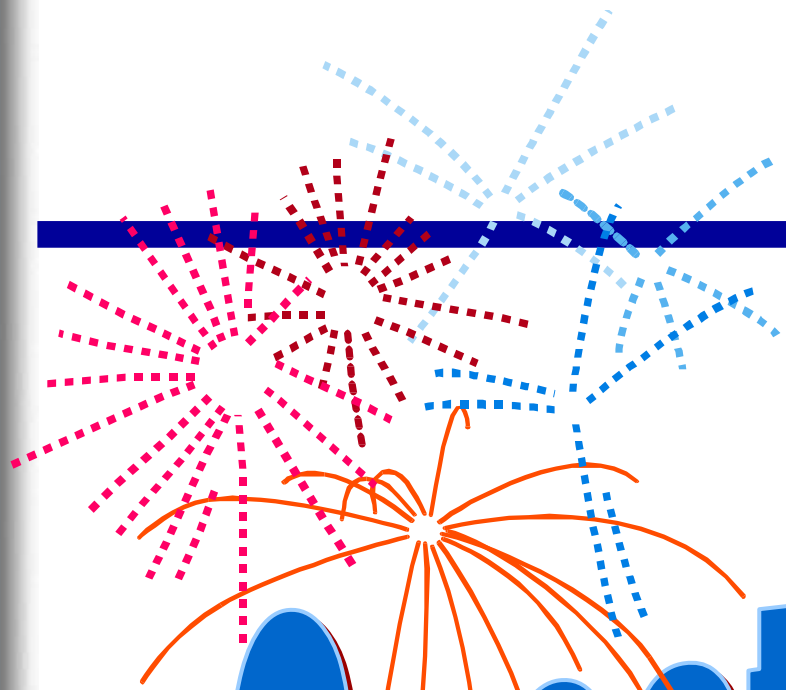
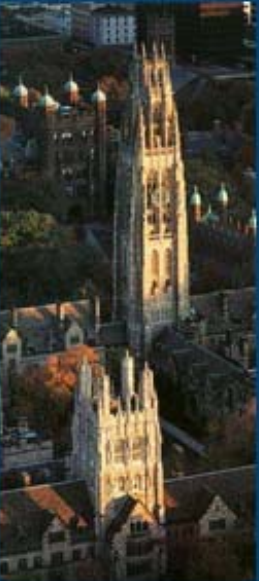
- **Utility Operator inspects for compliance with oil storage policies, oil leaks, and availability of spill control equipment (monthly). Documents inspections in log.**
- **OEHS reviews the utility inspection logs for completeness (semi-annually).**
- **Utilities/OEHS run an oil spill drill at each power plant (every two years).**



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Questions?



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