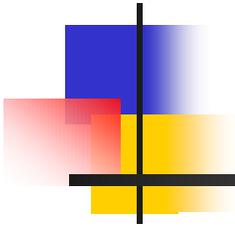
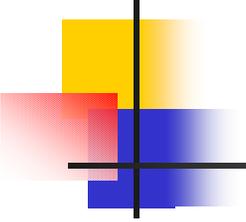


Environmental Management Systems (EMSs)



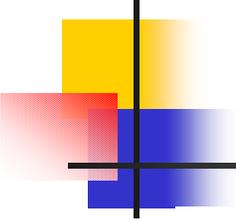
**Sam Coleman, P.E., Director
Compliance Assurance and
Enforcement Division, EPA, Region 6**

Environmental Management Systems - EMS



Processes and practices enabling:

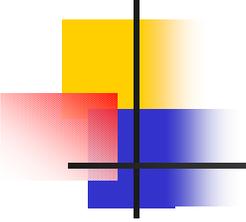
- ✍ **reduced environmental impacts**
- ✍ **increased operating efficiency**



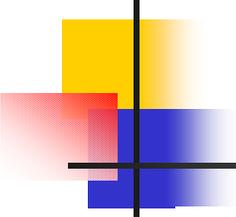
Executive Order 13148: Greening the Government Through Leadership in Environmental Management

- ✍ implement EMS pilot projects at selected facilities by April 2002
- ✍ implement EMSs at all appropriate agency facilities by December 31, 2005
- ✍ conduct agency-wide self assessment using an accepted EMS framework by October of 2001

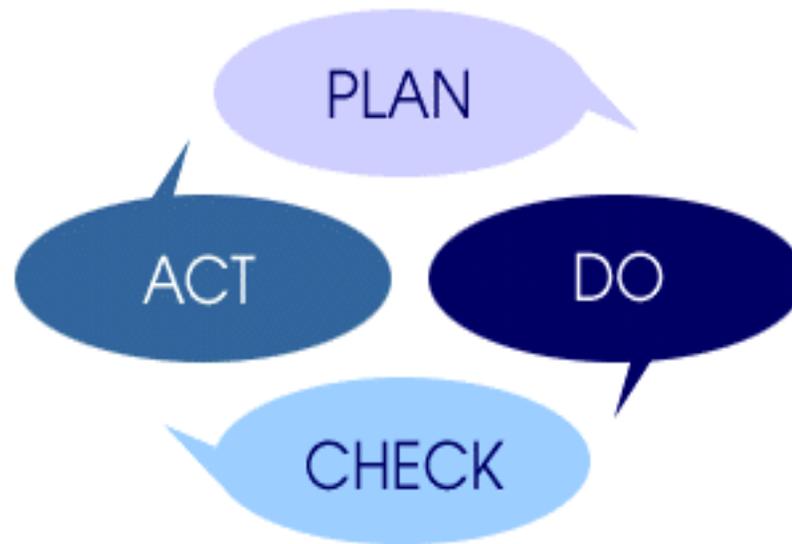
EMS Cycle



- ✍ **EMS = continual cycle of**
 - ✍ **Planning**
 - ✍ **Implementing**
 - ✍ **Reviewing, and**
 - ✍ **improving the processes and actions**
to meet business and environmental goals

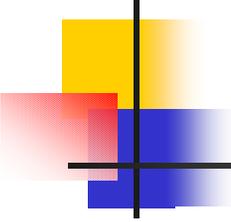


EMS Cycle



EMSs are built on the "Plan, Do, Check, Act" model

EMS Goals

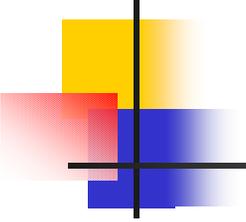


- ✍ **Promote wider adoption of EMSs**
- ✍ **Promote excellence in environmental management systems**
- ✍ **Fuller integration of EMSs into Agency programs and activities**

EMS Goal

Promote Wider Adoption of EMSs

- ✍ Develop tools and information clearinghouse
- ✍ Partner with and leverage other EMS assistance providers
- ✍ Develop incentives for effective EMSs
- ✍ Tailor tools and services



EMS Goal

Promote Excellence in EMSs

- ✍ Conduct training and support network;
- ✍ Implement at facilities and support implementation at other federal agencies
- ✍ Continue research on performance attributes of EMSs
- ✍ Participate in national and international EMS forums

EMS Goal

Integration of EMSs into Agency Programs and Activities

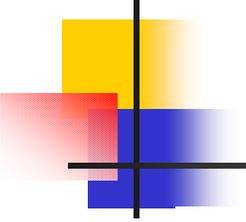
- ✍ Consider in Agency planning and budgeting processes
- ✍ Incorporate into Agency programs and activities
- ✍ Incorporate into compliance assurance and enforcement activities
- ✍ Incorporate into pollution prevention programs

Facility Regulatory Tour

For information on environmental regulations associated with common activities at Federal facilities, please click on the location number in the virtual facility or click here for a legend.



<http://www.epa.gov/fedsite/virtual.html>



Common Activities At Federal Facilities

1. Grounds Maintenance
2. Wastewater Treatment
3. Construction Sites
4. Transportation
5. Manufacturing Shops
6. Vehicle Maintenance
7. Storage Tanks
8. Hazardous Material Management
9. Office Buildings
10. Medical Clinics
11. Remediation Sites

Common Activities At Federal Facilities

1. Grounds Maintenance

activities that commonly take place at federal facilities include:

✍ Landscaping

✍ Leaf and Brush Removal

✍ Pesticide and Fertilizer Application

✍ Lawn Trimming and Lawn Mowing Maintenance

✍ Debris Cleanup

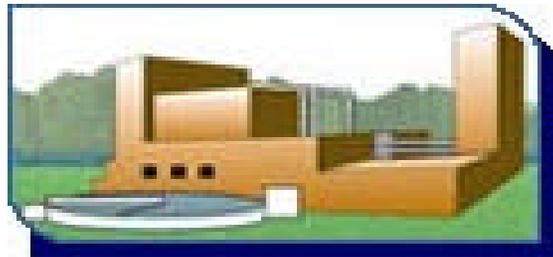


Common Activities At Federal Facilities

2. Wastewater Treatment

Wastewater may be discharged to POTWs or to City Sewers, or directly to surface waters.

Both types of discharge may be subject to regulation.



Common Activities At Federal Facilities

3. Construction Sites



Construction activities may have numerous environmental impacts depending on extent and location of the project.

Common Activities At Federal Facilities

4. Transportation

Transportation of raw materials to facility and products and waste from the facility involves DOT requirements and RCRA regulations (For Hazardous Waste).



Common Activities At Federal Facilities

5. Manufacturing Shops



Manufacturing shops (e.g. metal and wood) are often located in office complexes such as these. As a result of their daily operations, each generates wastes that may be regulated by EPA.

Common Activities At Federal Facilities

6. Vehicle Maintenance

Vehicle Maintenance may have a significant impact on the environment.

Significant activities found here

Oil Changes

Repairs

Cleaning

Painting



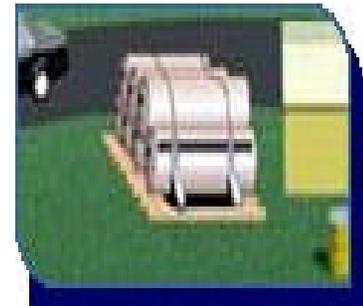
Common Activities At Federal Facilities

7. Storage Tanks

Liquid Tank Storage includes

- ✍ Above Ground Tanks (ASTs)
- ✍ Underground Storage Tanks (USTs) used for
 - ✍ Fuel
 - ✍ Chemicals
 - ✍ Non-Hazardous Wastes such as Used Oil
 - ✍ Hazardous Wastes such as Used Solvents

This section also addresses Accidental Releases of Toxic Chemicals.



Common Activities At Federal Facilities

8. Hazardous Material Management



Hazardous material storage and usage are critical activities that are the root of many environmental problems at Federal Facilities.

✍ Do you know where all materials are stored at your facility?

✍ Are these materials used efficiently?

✍ Are there substitutes that could be used in place of problematic chemicals?

Common Activities At Federal Facilities

9. Office Buildings

Electronics shops, research laboratories, and laundry facilities often reside in office complexes such as these.

As a result of their daily operations, each of these activities generates wastes that may be regulated by EPA.



Common Activities At Federal Facilities

10. Medical Clinics

Medical clinics may be subject to federal regs for waste disposal according to amount and content of waste

These wastes are generated from chemicals used in radiology, surgery, and dialysis activities.



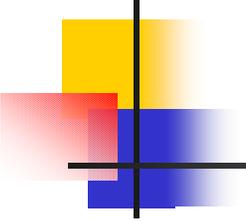
Common Activities At Federal Facilities

11. Remediation Sites



Clean up of contaminated sites may be covered by environmental regs.

EPA has compiled information on requirements and approaches for remediation at Federal sites.



QUESTIONS

Link to Federal Agency Environmental Home Pages

<http://www.epa.gov/fedsite/link.html>

Contact EPA, Region 6, Compliance Assurance and Enforcement

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(214) 665-2210

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<http://www.epa.gov/region6/6en>