

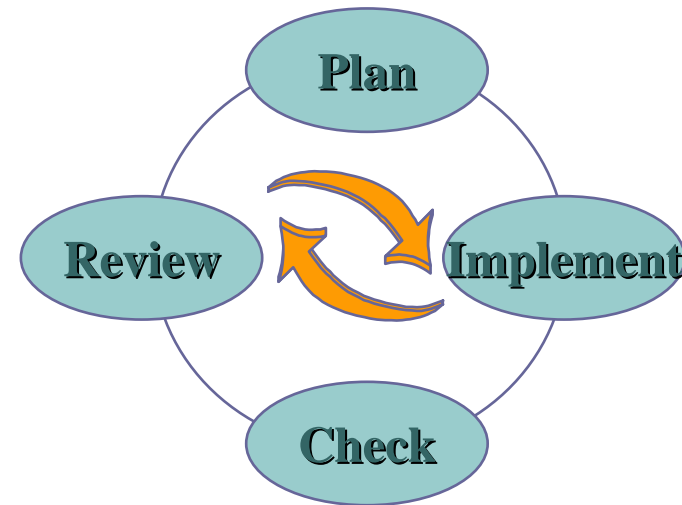


Environmental Management System Update

**Transportation and
Environment Committee**

What is an EMS?

- It is a set of management processes and procedures that allows an organization to analyze, control and reduce the environmental impact of its activities, products and services and operate with greater efficiency and control. An EMS is a systematic way of evaluating and improving an organization's environmental issues.





More on EMS...

- The EMS integrates the environment into everyday business operations
- Environmental stewardship becomes part of the daily responsibility of every employee.
- An EMS is not intended to be a substitute for regulatory requirements nor does it offer regulatory relief from the law.



EMS Departments

Aviation	Sanitation
Police	Fire
Code	Convention Center
Streets	Parks and Rec
Equipment & Building Services	Dallas Water Utilities
Public Works	

ISO 14001 Framework





Environmental Aspects/Impacts

- Environmental Aspects = Describes how an activity (vehicle operation) interacts with the environment (air emission)
- Environmental Impacts = The environmental result of the aspect (degradation of air quality)



Significant Environmental Aspects

- With limited resources, an organization must prioritize its environmental efforts
 - Using criteria important to the organization, each environmental aspect is scored and sorted from highest to lowest score
 - Example criteria – Is it regulated? Does it impact a community? Does it impact natural resources?
- The highest ranking aspects are deemed “significant”

Activities Products Services List

To find specific entries: enter the text string in the boxes immediately below, t

<u>Record No.</u>	<u>Location</u>	<u>Type</u>	<u>Activity Product Service</u>	<u>Notes</u>
00352	IC Harris	Activity	Carpentry Operations	
00355	IC Harris	Activity	Carpentry: Installing Windows, Doors, Frames	Installing windows, doors, and frames during construction, renovation, etc. Includes repairs to windows, doors, and frames.
00356	IC Harris	Activity	Carpentry: Operating Equipment	Includes operating saws, grinders, routers, drills, etc.
00357	IC Harris	Activity	Carpentry: Setting Forms	Setting forms for sidewalks, pads, trails
00358	IC Harris	Activity	Carpentry: Vacuum System Operations	Operating vacuum system within carpentry shop
00544	IC Harris	Activity	Cleaning basketball/tennis courts	Cleaning basketball/tennis courts of sediment and floatables
00351	IC Harris	Activity	Electrical Reparis	
00360	IC Harris	Activity	Electrical: Electrical Motors	Repairing electrical motors
00362	IC Harris	Activity	Electrical: Install new and temp services	
00361	IC Harris	Activity	Electrical: Install switches, outlets, phone lines	Installing switches, outlets, and phone lines
00359	IC Harris	Activity	Electrical: Installations/Repairs	Install/Replace/Repair outdoor and indoor lighting systems
00499	IC Harris	Activity	Equipment Repairs: Air Filters	Cleaning and replacing air filters on various off road equipment. Work conducted in the shop.

Environmental Aspects List

EX11

List All Aspects

List Significant Aspects

Find

List All

Score Calculation Setup

Significance Value = 20

Save Changes

To find specific entries: enter the text string in the boxes immediately below, then press 'Find'

<u>Record No.</u>	<u>Location</u>	<u>APS</u>	<u>Input</u>	<u>Condition</u>	<u>Aspect</u>	<u>Impact</u>	<u>Legal Issues</u>	<u>Stakeholder Interest</u>	<u>Score</u>
01628	IC Harris	Pools: Storing and Maintaining Chemicals	All	Emergency	Spills	Degradation of Soil, Water, and/or Sediment Quality			25
01632	IC Harris	Pools: Storing and Maintaining Chemicals	All	Emergency	Exposures/Injuries	Degradation of Public Health			23
01630	IC Harris	Pools: Storing and Maintaining Chemicals	All	Emergency	Exposures/Injuries	Degradation of Worker Health			23
01493	IC Harris	Equipment: Operating Backhoes/Trenchers	All	Emergency	Spills	Degradation of Soil, Water, and/or Sediment Quality			23
01534	IC Harris	Wash Rack Operations	All	Abnormal	Stormwater/Surface Water Discharges	Degradation of Water Quality			21
01532	IC Harris	Wash Rack Operations	All	Normal	Water Consumption	Use of Natural Resources			21
01633	IC Harris	Pools: Storing and Maintaining Chemicals	All	Abnormal	Stormwater/Surface Water Discharges	Degradation of Water Quality			21
01598	IC Harris	Painting: Interior Painting	All	Normal	Asbestos	Degradation of Human Health			21
01615	IC Harris	Pools: Filling and Draining Pools	All	Normal	Stormwater/Surface Water Discharges	Degradation of Water Quality			21
01616	IC Harris	Pools: Filling and Draining Pools	All	Normal	Ecological (fish/animal/fauna)	Habitat and Species sensitivity			19
01617	IC Harris	Pools: Cleaning Pools	All	Normal	Spills	Degradation of Soil, Water, and/or Sediment Quality			19
01618	IC Harris	Pools: Cleaning Pools	All	Normal	Waste Generation and Disposal	Reduction in Landfill Space			19

Degradation of Soil



Objectives and Targets

- For each Significant Aspect, the City must set an associated objective and target.
- Objectives and targets must ultimately reduce environmental impacts and must be measurable.
- EMS allows an organization to consider costs, legal obligations, interested parties, and other business realities.



Objectives and Targets

- Objectives and Targets for the City are being set at several levels
 - City Wide
 - Multi-Departmental
 - Individual Department/Facility
- For City Wide Objectives and Targets, one Department is set as the lead for monitoring and reporting



City Wide Objectives and Targets



Objectives and Targets

Objective:

Maintain Environmental Compliance

Target:

Zero Administrative NOEs

Example Programs:

- Conduct Root Cause Analysis on NOV/NOEs
- Conduct Systematic Environmental Assessments/Inspections
- Review Compliance History For City Facilities

Tracking Department

OEQ



Objectives and Targets

Objective:

Increase the Quantity of Less Toxic/Non-Hazardous Chemical Products Purchased

Target:

Develop and Implement Product Substitution Program by September 2007

Example Programs

Establish Task Force, Develop Chemical Ranking System, Review Products for Substitution, Conduct Testing, Select Products for Substitution, Implement Systematic Program

Lead Department

OEQ



Objectives and Targets

Objective:

Reduce the Amount of Energy Consumed by City Facilities

Target:

5% by December 2007*

Example Programs:

Identify Facility Energy Use, Evaluate Methods to Reduce Energy Use, Training

Lead Department

EBS

*SB 5 is Scheduled to End in December 2006.



Objectives and Targets

Objective:

Reduce the Amount of Water Consumed by City-owned Operations through water saving strategies and water conservation codes

Target:

Develop and Establish an Internal City Wide Water Conservation Program by September 2007

Example Programs:

Plan, Develop and implement a City facility indoor low flow fixture retrofit program

Convert appropriate sections of city-owned landscapes

Review and revise existing City ordinances, AD's and standards as necessary to ensure water-conserving principles

Lead Department

DWU



Objectives and Targets

Objective:

Increase recycling of paper, plastic, glass and cardboard, and aluminum by City Facilities

Target:

5% per year

Example Programs

Develop Education and Incentive Program, Identify and Incorporate Facilities Without Recycling,

Lead Department

EBS



Objectives and Targets

Objective:

Decrease the Number of Petroleum based Spills
Caused by City Operations

Target:

Decrease total number of City spills by 5% by April
2008.

Example Programs

Enhance Training programs, Conduct Root Cause
on Spills, Continue to Track Costs

Lead

Environmental Compliance Committee



Objectives and Targets

Objective:

Implement a City Department Wide Asbestos Education Program

Target:

December 2007

Example Programs:

Determine Training Needs, Identify Personnel, Develop and Implement Training Program

Lead Department

EBS



Objectives and Targets

Objective: Decrease NO_x, VOC, PM and CO₂ emissions from onroad vehicles

Target:

100% of Sedans (except for emergency vehicles) must be CNG, Hybrid, or E85

Example Programs:

Determine Baseline and Develop Target for Heavy Duty, Develop a fuels/equipment strategy

Lead Department

EBS



Objectives and Targets

Objective: Decrease NO_x, VOC, PM and CO₂ emissions from offroad vehicles

Target:

5% for each Pollutant by December 2008

Example Programs:

Purchase Tier III Diesel Engines, When Available

Evaluate Retrofits

Develop Fuels/Equipment Strategy

Lead Department

EBS



Example Multi- Departmental Objectives and Targets



Objectives and Targets

Objective:

Reduce environmental impacts from accident scenes

Target:

February 2007

Example Programs

Evaluate Accident Scenes for Environmental Impacts;
Determine Opportunities for Improvements, if any;
Implement as appropriate

Lead Department

Police

Affected Department

Fire



Objectives and Targets

Objective:

Evaluate potential for use of solar power devices in City Operations; Increase Use of solar power devices in City Operations

Target:

Replace/support applicable battery powered devices at AVI with solar powered devices by 10 % by December 2008.
Set targets for other Departments by December 2006.

EMPs

To Be Determined

Lead Department

AVI

Affected Departments

PWT, STS, EBS



Example

Departmental/Facility

Objectives and Targets



Objectives and Targets

Objective:

Reduce Vegetable Waste from Farmer's Market by Composting

Target:

100% of vegetable waste is composted by April 2008

Example Programs:

Determined Quantity, Identify Site, Develop Compost Area

Department

CES



Objectives and Targets

Objective:

Reduce Potential for Process Failure at Wastewater Treatment and Water Treatment Plants

Target:

Complete and Implement Risk Management and Emergency Action Plans by December 2007

Example Programs:

DWU Risk Assessment and Emergency Response Procedures; Emergency Response Training Programs and Tabletops

Risk Assessment Audits; Emergency Action Plans; Risk Management Plans

Department

DWU



Ongoing EMS Tasks

- Complete Setting of Objectives and Targets at Individual Facility Level
- Develop Management Programs for Each Objective and Target with Schedule and Responsible Person
- Complete Documentation of Legal and Other Requirements
- EMS Communication Plan



Benefits To Date

- Employee Awareness and Participation
- Systematic Identification of Compliance Gaps/Improved Compliance
- Sharing of Information Between Departments
- Hazardous Chemical Elimination/Substitution



What's Next

- Write Work Instructions for Significant Aspects
- Identify Training Requirements by Job Title/Description
- Begin Identification and Training of Internal Audit Team



Completion of EMS

- Completion Date of First Full EMS Cycle: April 2007
- Following Completion of EMS, Retain a 3rd Party ISO 14001 Registrar to Verify Compliance with Standard
- Achieve ISO 14001 Verification – November 2007



Summary

- An EMS is a systematic way to organize, measure, and improve environmental impacts and initiatives.
- The City is in the process of setting Objectives and Targets and developing Management Plans to guide and track implementation.
- The City is on schedule to complete the EMS in April 2007.