



LTES

Environmental

Management System

(EMS)

Programmes



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ENVIRONMENTAL MANAGEMENT PROGRAM DESCRIPTION

• Annual Objectives and Targets

Objectives	Targets
Supplies	
Increase use of recyclable and recycled materials and equipment in supplies	Increase use of suppliers that provide recyclable and recycled materials and equipment by 15% by January 2015
Reduce amount of supplies used	Implement recycling of supplies (plastic, laser cartridges, metal) respectively by January 2015 Implement reuse programme for print cartridges by January 2015
Soap & Detergents	
Reduce usage of hazardous detergents	Reduce use of high-VOC detergents by 25% by January 2015
Energy Use	
Reduce energy usage	Reduce electricity use by 2% by January 2015 Reduce oil/gas use by 2% by January 2015
Water Use	
Reduce water use	Reduce water use by 2% by January 2015
Water Discharges	
Reduce volatile organic compounds (VOCs) in wastewater discharges	Increase use of aqueous cleaners by 20% by January 2015
Solid/Liquid Wastes	
Reduce solid waste	Reduce solid waste by 10% by material reuse by January 2015
Reduce hazardous waste	Reduce hazardous waste by 25% by January 2015
EMS training	
Organize and perform training on Social Management System	All employees undergo EMS training by January 2015

ACTION PLANS (TO ACHIEVE OBJECTIVES AND TARGETS)

Environmental Management Programme for Solid Waste Reduction

Functional Area: All Functional Areas

Activity or Process: Equipment Upgrade and Consumables Consumption

Legal & Regulatory Requirement: No

Objective: Study Waste Reduction

Target: Complete study by July 2014

Category: Control/Maintain Improve Study or Investigate

No. 1 Action Plan: Study of Potential Waste Reduction

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments (C)/Deliverables (D)
Identify potential waste reduction initiatives	Environmental Manager	Web sites on poll. Prevention	January, 2014	March, 2014	D – List of steps to be taken to fulfill initiative and responsibilities
Identify list of suitable equipment vendors to achieve volume reduction	Environmental Manager / Vendor Manager	Vendors	March, 2014	April, 2014	D – List of potential vendors
Perform evaluation, technical feasibility and cost analysis of select vendors	Vendor Manager	Data from vendors	April, 2014	June, 2014	D – Comparative cost analysis of vendors D – Technical feasibility analysis
Present recommendation to management for waste reduction	Environmental Manager / Vendor Manager	Presentation equipment	June, 2014	July, 2014	D – list of evaluations and recommendations for waste reduction

Environmental Management Programme for Water Discharges

Functional Area: Administration

Activity or Process: Office Administration, Cleaning and Support

Legal & Regulatory Requirement: No

Objective: Study reduction of volatile organic compounds (VOCs) in wastewater discharges

Target: Complete study by July 2014

Category: Control/Maintain Improve Study or Investigate

No. 2 Action Plan: Study of reduction of volatile organic compounds (VOCs) in wastewater discharges

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments (C)/Deliverables (D)
Identify potential VOC reduction initiatives	Environmental Manager	Web sites on VOC reduction	January, 2014	March, 2014	D – List of steps to be taken to fulfil initiative and responsibilities
Identify list of suitable vendors to achieve reduction	Environmental Manager / Vendor Manager	Vendors	March, 2014	April, 2014	D – List of potential vendors
Perform evaluation, technical feasibility and cost analysis of select vendors	Vendor Manager	Data from vendors	April, 2014	June, 2014	D – Comparative cost analysis of vendors D – Technical feasibility analysis
Present recommendation to management for VOC reduction	Environmental Manager / Vendor Manager	Presentation equipment	June, 2014	July, 2014	D – list of evaluations and recommendations for VOC reduction

Environmental Management Programme for Water Use

Functional Area: Administration

Activity or Process: Water Supply and Consumption

Legal & Regulatory Requirement: No

Objective: Study Water Use Reduction

Target: Complete study by July 2014

Category: Control/Maintain Improve Study or Investigate

No. 3 Action Plan: Study of Potential Water Use Reduction

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments (C)/Deliverables (D)
Identify potential water use reduction initiatives	Environmental Manager	Web sites on water use reduction	January, 2014	March, 2014	D – List of steps to be taken to fulfil initiative and responsibilities
Identify list of suitable water supply equipment vendors to achieve volume reduction	Environmental Manager / Vendor Manager	Vendors	March, 2014	April, 2014	D – List of potential vendors
Perform evaluation, technical feasibility and cost analysis of select vendors	Vendor Manager	Data from vendors	April, 2014	June, 2014	D – Comparative cost analysis of vendors D – Technical feasibility analysis
Prepare presentation and personnel training material for water use reduction	Environmental Manager	Web sites on water use reduction	March, 2014	June, 2014	D – Training material for water use reduction
Present recommendation to management for water use reduction	Environmental Manager / Vendor Manager	Presentation equipment	June, 2014	July, 2014	D – list of evaluations and recommendations for water use reduction

Environmental Management Programme for Energy Use Reduction

Functional Area: All Functional Areas

Activity or Process: All Daily Activities

Legal & Regulatory Requirement: No

Objective: Study Waste Reduction

Target: Complete study by July 2014

Category: Control/Maintain Improve Study or Investigate

No. 4 Action Plan: Study of Potential Energy Use Reduction

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments (C)/Deliverables (D)
Identify potential Energy Use reduction initiatives	Environmental Manager	Web sites on Energy Use reduction	January, 2014	March, 2014	D – List of steps to be taken to fulfil initiative and responsibilities
Identify list of suitable building construction vendors to achieve energy use reduction	Environmental Manager / Vendor Manager	Vendors	March, 2014	April, 2014	D – List of potential vendors
Perform evaluation, technical feasibility and cost analysis of select vendors	Vendor Manager	Data from vendors	April, 2014	June, 2014	D – Comparative cost analysis of vendors D – Technical feasibility analysis
Prepare presentation and personnel training material for energy use reduction	Environmental Manager	Web sites on Energy Use reduction	March, 2014	June, 2014	D – Training material for energy use reduction
Present recommendation to management for energy use reduction	Environmental Manager / Vendor Manager	Presentation equipment	June, 2014	July, 2014	D – list of evaluations and recommendations for energy use reduction

Environmental Management Programme for Hazardous Detergents Reduction

Functional Area: Administration

Activity or Process: Office Administration, Cleaning and Support

Legal & Regulatory Requirement: No

Objective: Study Hazardous Detergents Reduction

Target: Complete study by July 2014

Category: Control/Maintain Improve Study or Investigate

No. 5 Action Plan: Study of Potential Hazardous Detergents Reduction

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments (C)/Deliverables (D)
Identify potential Hazardous Detergents reduction initiatives	Environmental Manager	Web sites on Hazardous Detergents reduction	January, 2014	March, 2014	D – List of steps to be taken to fulfil initiative and responsibilities
Identify list of suitable equipment vendors to achieve volume reduction	Environmental Manager / Vendor Manager	Vendors	March, 2014	April, 2014	D – List of potential vendors
Perform evaluation, technical feasibility and cost analysis of select vendors	Vendor Manager	Data from vendors	April, 2014	June, 2014	D – Comparative cost analysis of vendors D – Technical feasibility analysis
Present recommendation to management for Hazardous Detergents reduction	Environmental Manager / Vendor Manager	Presentation equipment	June, 2014	July, 2014	D – list of evaluations and recommendations for Hazardous Detergents reduction

Environmental Management Programme for EMS training

Functional Area: Management

Activity or Process: Environmental and Social Training

Legal & Regulatory Requirement: No

Objective: Prepare Environmental and Social Training material

Target: Complete material by January 2014

Category: Control/Maintain Improve Study or Investigate

No. 6 Action Plan: Prepare Environmental and Social Training material

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments (C)/Deliverables (D)
Identify applicable EMS training areas	Environmental Manager	Web sites on EMS training	September, 2013	January, 2014	D – List of specific EMS training areas
Prepare EMS training material	Environmental Manager	Web sites on EMS training	September, 2013	January, 2014	D – EMS training material
Define EMS training schedule	Environmental Manager	Data from all functional areas	September, 2013	January, 2014	D – EMS training schedule
Present recommended EMS training to management	Environmental Manager	Presentation equipment	September, 2013	January, 2014	D – list of evaluations and recommendations for EMS training

Environmental Management Programme for Supplies

Functional Area: Vendor management

Activity or Process: Office Administration and all Functional Areas

Legal & Regulatory Requirement: No

Objective: Study increased use of suppliers that provide recyclable and recycled materials and equipment

Target: Complete study by July 2014

Category: Control/Maintain Improve Study or Investigate

No. 7 Action Plan: Study potential increase of recyclable and recycled materials and equipment

Task/Action Items	Responsible Party	Resources Needed	Project Start Date	Project Completion Date	Comments (C)/Deliverables (D)
Identify potential recycling initiatives	Environmental Manager	Web sites on recycling	January, 2014	March, 2014	D – List of steps to be taken to fulfil initiative and responsibilities
Identify list of suitable vendors to achieve recyclable/recycled supplies	Environmental Manager / Vendor Manager	Vendors	March, 2014	April, 2014	D – List of potential vendors
Perform evaluation, technical feasibility and cost analysis of select vendors	Vendor Manager	Data from vendors	April, 2014	June, 2014	D – Comparative cost analysis of vendors D – Technical feasibility analysis
Present recommendation to management for increased use of recyclable and recycled materials and equipment	Environmental Manager / Vendor Manager	Presentation equipment	June, 2014	July, 2014	D – list of evaluations and recommendations for use of recyclable and recycled materials and equipment



TRACKING AND MEASURING PROGRESS

Tracking Objectives, Targets, Operational Controls, and Measurement

Objectives	Targets	Monitoring and Measurement
Supplies		
Increase use of use of recyclable and recycled materials and equipment	Increase use of suppliers that provide recyclable and recycled materials and equipment by 15% by January 2015	Year 2012: Recyclable material: 50% of value of total supplies Recycled material: 10% of value of total supplies 2013 first half: Recyclable material: 60% of value of total supplies Recycled material: 13% of value of total supplies
Reduce amount of supplies used	Implement recycling of supplies (plastic, laser cartridges, metal) respectively by January 2015 Implement reuse programme for print cartridges by January 2015	Year 2012: minimal recycle/reuse of print cartridges 2013 first half: 50% of print cartridges are recycled/reused
Soap & Detergents		
Reduce usage of hazardous detergents	Reduce use of high-VOC detergents by 25% by January 2015	Year 2012: 0% of detergents classified as non hazardous 2013 first half: 20% of detergents classified as non hazardous
Energy Use		
Reduce energy usage	Reduce electricity use by 2% by January 2015 Reduce oil/gas use by 2% by January 2015	Year 2012: electricity: 14658 kWh oil: 650 lt 2013 first half: electricity: 6825 kW oil: 0 lt



Water Use		
Reduce water use	Reduce water use by 2% by January 2015	Year 2012: water use: 120500 lt 2013 first half: water use: 61300 lt
Water Discharges		
Reduce VOCs in wastewater discharges	Increase use of aqueous cleaners by 20% by January 2015	Year 2012: 40 kg of detergents (no hazardous classification) 2013 first half: 21 kg of detergents (no hazardous classification), 5 kg classified as non hazardous
Solid/Liquid Wastes		
Reduce solid waste	Reduce solid waste by 10% by material reuse by January 2015	Year 2012: Recyclable material: 50% of value of total supplies Recycled material: 10% of value of total supplies 2013 first half: Recyclable material: 60% of value of total supplies Recycled material: 13% of value of total supplies
Reduce hazardous waste	Reduce hazardous waste by 25% by January 2015	Year 2012: 20% of waste classified as non hazardous 2013 first half: 30% of waste classified as non hazardous
EMS training		
Organize and perform training on Social Management System	All employees undergo EMS training by January 2015	Year 2012: Short EMS training as part of induction training 2013 first half: Action plan for full scale EMS training programme in place



REFERENCES

IBM's Requirements for Suppliers on Corporate Responsibility and Environmental Management, Release Version 3.0; Release Date 24 February, 2013

ISO 14001 - Environmental management systems — Requirements with guidance for use

US Environmental Protection Agency

<http://www.epa.gov>