

Environmental Management Systems



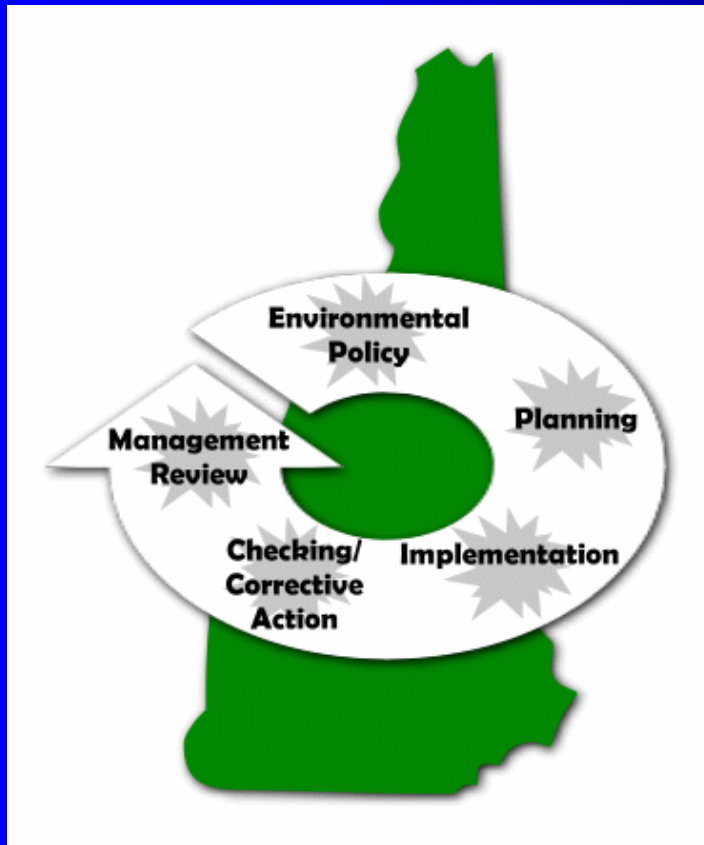
August 11, 2003

Frederic C. Murphy



Environmental Management Systems

21st Century Management



Why ?

Environmental Management Systems 21st Century Management Pressures

2002 Laws

New England	338
CA, OR, WA	99

3rd Generation Regulators



Environmental Management Systems
21st Century Management
Pressures

Hammer Oversight



Environmental Management Systems

21st Century Management

- Congress - Surface Transportation Reauthorization Bill
- US DOT - Streamlining and Stewardship
Delegation of Authority
- AASHTO - Center for Environmental Excellence
- EPA - Position on Environmental Management Systems
- EPA - Training for Environmental Management Systems
- States - Supplemental Environmental Projects



Environmental Management Systems

21st Century Management

Subject: ACTION: Environmental Stewardship
and Environmental Streamlining

Date: October 11,
2002

From: Mary E. Peters
Administrator

As we move forward, we need to be clear about our message and our direction both within the agency and to our State, Federal and public partners: we are not making a choice between advancing transportation improvements in a timely manner and being good stewards of the human and natural environment; we must do both.



Environmental Management Systems 21st Century Management



At the annual meeting of the Environmental Council of the States in Hawaii this past summer, the Administration stated its support for significantly increasing the number of private and federal facilities using EMS in the United States.



NH DOT

Traffic

Environmental Management Systems

The Reason Why

Establish and maintain spill response control supplies and hazardous waste staging areas at strategic locations in New Hampshire.

Achievement of ISO 14000 Certification



Environmental Management Systems

The EMS Study

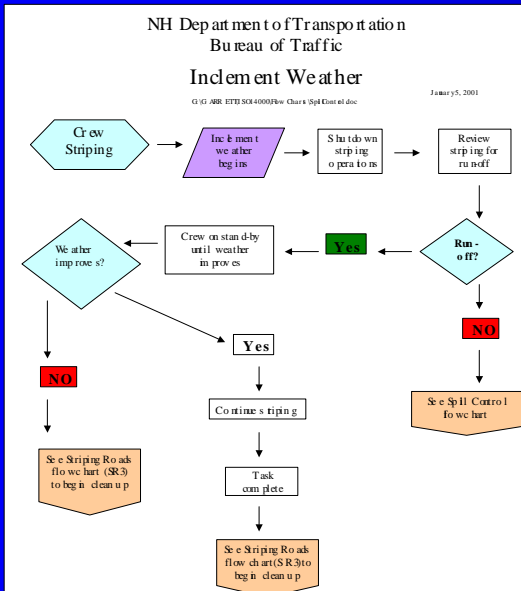
Two Teams

Implementation Team

Core Team



Aspect Identification Loop



Item Number	Activity, Product or Service	Source of Impact (Aspect)	Air	Habitat	Storm Water	Soil/Land	Ground water	Hazardous Waste	Solid Waste	Resource Consumption	Water Consumption	Power Consumption	Noise	
3	Pump Paint (Con.)	Perform Tasks	-3	-1						-3	-3	-3	-3	
		Clean Up								-3	-3	-3	-3	
		Spill	-3	-3						-3	-3	-3	-3	
4	Bead Delivery	PPE												
		Perform Task ->	Unsuccessful	-1	-6						-6	-6		-5
		Successful	1	6							6	-6		-5
5	Forklift Operations	Training												
		Check Fuel			3	3	3	3	3	3	3	3	3	3
		Perform Task	Accident	-5	-4	-5	-5	-5	-4	-5	-4	-4	-4	-5
6	Inclement Weather	Shut down			5	4	5	5	5	5	5	5	4	5
		No Shut down			-3	-3	-3	-3	-3	-3	-3	-3	-3	-3

Activity	Aspect	Regulate? Y/N	Resource Consumption	Solid Waste	Releases to Water	Emissions to Air	Contamination of Land	Exposure to Humans or Wildlife	HazMat/Waste			Changes in Land Use	Stakeholders	Other (Procedural)	Other	Other	Total	Significant
									Use	Store	Disp.							
Pavement Marking Bead Delivery	Perform Task	N	3/3	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	Y			3/3	Y
Pavement Marking Fork Lift Operations	Perform Task	Y	3/3	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	Y			3/3	Y
Pavement Marking Inclement Weather Ops	Perform Task	N	3/3	0/0	3/3	0/0	3/1	3/3	0/0	0/0	0/0	0/0	3/3	Y			15/13	Y
Pavement Marking Paint Line Flush	Valve Check	N	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	Y			0/0	N
	Flush Ops	N	0/0	3/3	0/0	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	Y			4/4	Y
Pavement Marking Waste Collection	Move Waste	N	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	Y			0/0	N
	Transfer Waste	N	0/0	0/0	0/0	1/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0	Y			1/1	N

Yearly Review of Significant Aspects



Environmental Management Systems

The EMS Study

Significance Summary

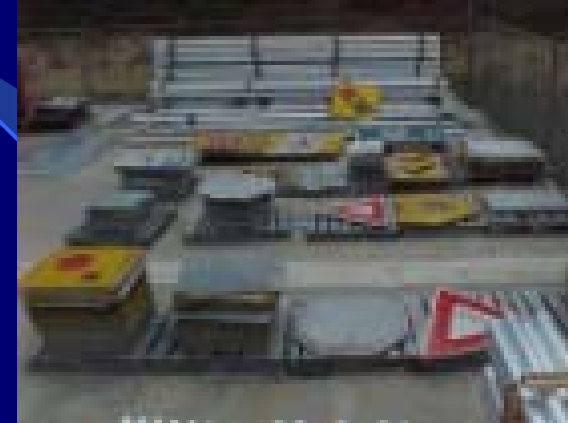
Activities Reviewed	32	
Aspects Assessed		104
Significant Aspects	21	
Objectives and Targets		10



Environmental Management Systems

The EMS Study - Benefits

Recycle Sign Material



Sign Material Storage
Now stored undercover



Environmental Management Systems

The EMS Study - Benefits

Recycle Sign Material



Recycled Sign Material

New **\$1.55/ sq. ft**

Recycled **\$0.88/ sq. ft**

15% Recycled Use/ Year

95% Recycled Use

in 5 Years



Environmental Management Systems

EMS Study - Benefits

Waste Paint Processing

6000 Gal. * \$3.25 = \$19,500+



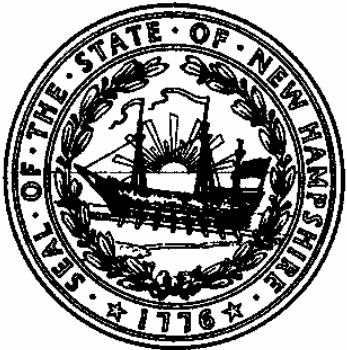
**\$42,960 New Equip./Maint.
Training Cost**

2.5 Years Pay Back

\$15,000 Annual Savings



Best Management Practices for Routine Roadway Maintenance Activities in New Hampshire



<http://webster.state.nh.us/dot/environment/pdf/BMPManual.pdf>

New Hampshire
DOT

August 2001



Vehicle Washing

Environmental Management Systems

EMS - The Future

Common Threads



Policies and Procedures

Training

Objectives & Targets

Measurement

Management Rev

Stakeholders

Environmental Management Systems

EMS - The Future



Safety

Quality controls

Quantity

Stewardship

NPDES II Requirements

Environmental Management Systems

EMS - The Future



Measurable – Setting

Objectives and targets

**Requires Audits – 3rd Party
Registration**

Continuous – Annual

Reviews of Program

Environmental Management Systems

EMS - The Future



**“We cannot afford not to establish
an Environmental Management
System”**

**Leon S. Kenison
Commissioner
NH DOT**