

Massachusetts Environmental Results Program

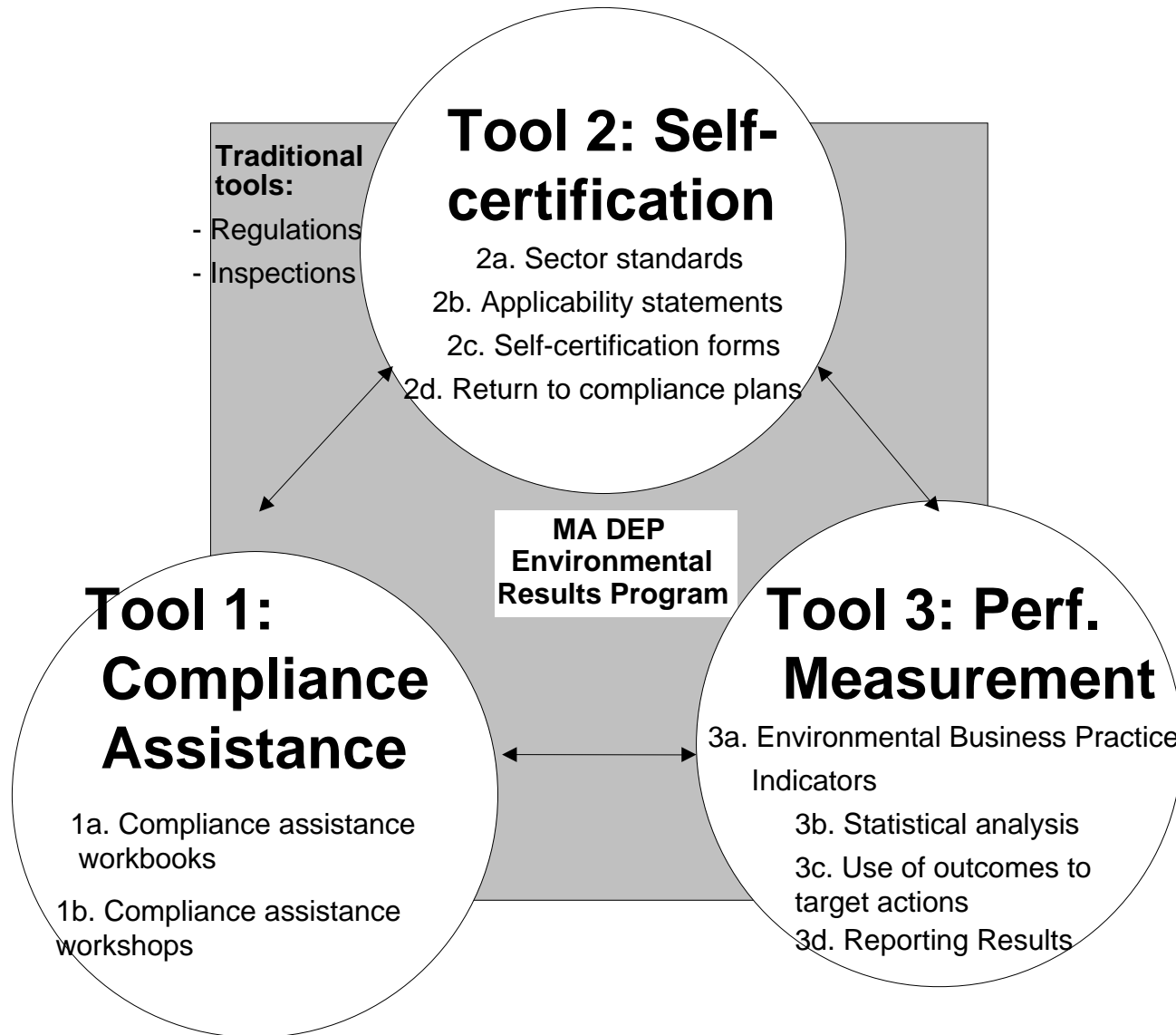
Steven DeGabriele

Director, Business Compliance Division
Massachusetts DEP

Back to the Beginning - 1996

- With major sources generally under adequate controls and oversight, major environmental goals such as Ozone Attainment were still not achieved
- Recognition that numerous small sources cumulatively create significant environmental impacts
- Build on successful multi-media, pollution prevention based approaches
- Less prescriptive, performance-based approaches
- Finding better ways to measure regulated community and agency performance
- **THE ERP APPROACH AND RESULTS**

ERP LINKS



PROGRAM STATUS: DRY CLEANERS, PHOTO PROCESSORS, PRINTERS

- Fall 1997--First Annual Certification--Dry Cleaners and Photo Processors
- Fall 1998--First Annual Certification--Printers
- Fall 2005--Ninth Annual Certification for Dry Cleaners and Photo Processors
--Eighth Annual Certification for Printers
- Expanding ERP to Other Categories

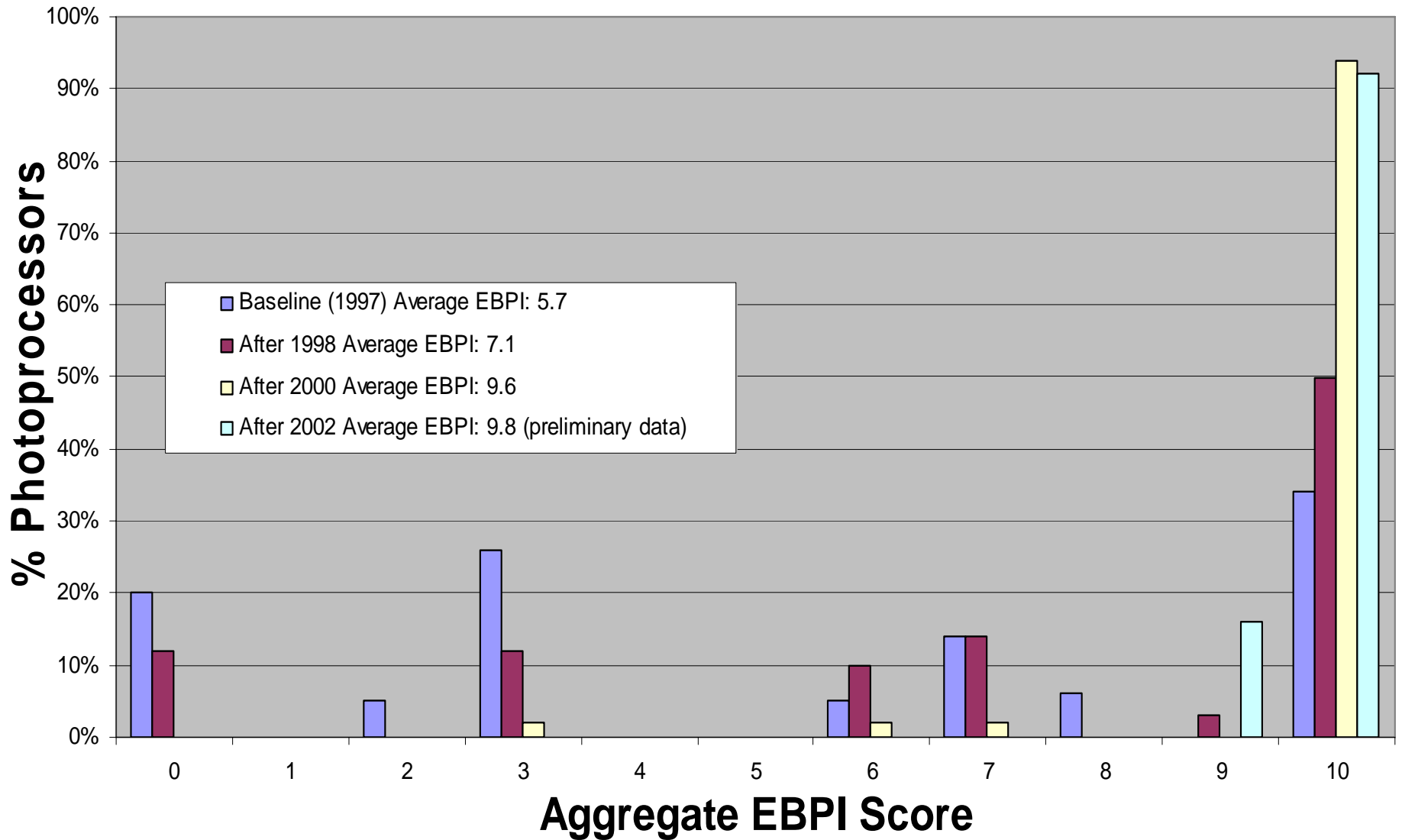
Current Uses of Full ERP & ERP Tools in Massachusetts

Sector or Activity (#)	Compliance Assistance Workbooks	Self-Certification	Statistical Measurement
Dry Cleaners (600)	X	X	X
Photo Processors (450)	X	X	X
Printers (1200)	X	X	X
Stage II Vapor Recovery at Refueling Facilities (3000)		X	X
New Small Boilers 10-40BTU (small # / year)	X	X	
New Industrial Wastewater Holding Tanks (small # / yr)		X	
Mercury Dentists (3600)		X	

ERP MEASUREMENT METHODOLOGY

- EBPI's
- Baseline and Year 1 Random Inspections
- Score
 - Facility-specific
 - Industry-wide
 - Indicator-specific
- Statistics

Photoprocessors EBPI Performance Trends 1997-2002



EBPI PERFORMANCE RESULTS

EBPI: Facility Has Emergency Procedures in Place

Performance for **dry cleaners** increased **from 25%** at baseline in 1997 **to 80%** in 1998. Apply this change to the entire universe: **358** more facilities with emergency procedures in place.

EBPI: Containers in Good Cond. & Kept Closed

Performance decreased by **3%** from baseline (or roughly **20** more **dry cleaners** have inadequate container management).

EBPI: Meeting 2ppm Silver Discharge

Performance increased **from 60%** at baseline to **98%** in 1998. MA DEP can account for **98%** of all silver generated from **photoprocessors** in Massachusetts.

SELECT ENVIRONMENTAL OUTCOMES

- *Question:* “Are you in compliance with the press cleanup solution requirement?”

Results: Performance increased **from 77%** at baseline in 1998 to **85%** in 1999. Apply this to entire universe, this is equivalent to **4.0 tons VOC reduction**

- *Question:* “Is leak detection performed weekly, following workbook protocol and using proper leak detection equipment?”

Result: Performance increased **from 33%** at baseline in 1997 to **66%** in 2000. Based on avg. perc use per facility, applied to entire universe, this is equivalent to **22.5 ton reduction** of perc emissions.

Stage II Goals and Measures – 1997 - 2005

- Compliance strategy based on ERP approach
- Program goal: 9000 tons of VOCs controlled by 3000 fuel dispensing facilities (95% vapor capture efficiency).
- Baseline: In 1997, only 54% had submitted required passing vapor system test results. Over 90% field non-compliance.
- Program revisions: annual certification to system integrity (tests), weekly operator inspections, systematic reporting enforcement and field inspection presence by DEP
- Under revised program, of the 2.7 billion gallons of motor fuel dispensed annually, facilities accounting for 2.65 billion gallons (98%) had certified to passing tests.
- In 2005, 8820 tons of VOC demonstrated under control vs. 4860 tons in 1997

Voluntary ERP for Dental Mercury Facilities

2004-2006

- **Environmental Footprint:** Dental practices generate waste mercury containing amalgam, 3600 dentists, 305-320 pounds of mercury total
- **Program requirements:** Install an amalgam separator; maintain and operate according to manufacturer specs.; use only pH neutral cleaners and clean vacuum system lines; recycle all wastes; keep records; self-certification to DEP
- **Program incentives and goals:** If dental practices certified in 1st year, would not need to upgrade system until 2010. If 50% certified in 1st year, DEP would not promulgate mandatory regulations for at least 1 year
- **Results:** 1,667 dental practices covering 2661 dentists (74% of 3600 total dentists) self-certified to requirements

Where is ERP information?

- U.S. EPA Website: epa.gov/permits
- MassDEP Website: mass.gov/dep/erp