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**ONGOING EFFORTS BY STATE  
REGULATORY AGENCIES TO INTEGRATE  
POLLUTION PREVENTION  
INTO THEIR ACTIVITIES**

for:

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## **Introduction**

As pollution prevention has become an increasingly important part of state environmental programs, the scope and diversity of these programs has increased. When the National Roundtable of State Pollution Prevention Programs first formed, the few state pollution prevention programs were largely non-regulatory technical assistance programs.

While the vast majority of state pollution prevention initiatives remain focused on providing non-regulatory assistance to industry, the range of methods utilized by the states has grown enormously. The changes have included both a growth in the scope and sophistication of the non-regulatory programs, and an increasing effort in many states to modify regulatory programs to incorporate pollution prevention approaches.

Many states are increasingly looking for opportunities to improve the environmental protection provided by their regulatory programs beyond that afforded by the traditional media-specific end-of-pipe programs. Some have decided that integration of pollution prevention<sup>1</sup> into their regulatory programs may both augment current regulatory strategies and support non-regulatory initiatives.

Innovation and experimentation are frequent elements of regulatory integration initiatives. States have used pilots to test new approaches. Program designs have often been context-specific for unique state or local conditions. They have included a range of activities affecting the issuance of environmental permits, compliance inspections and enforcement actions. In some cases, states have also taken organizational measures, ranging from training of regulatory personnel to functional reorganization within the state agency, to more fully promote implementation of pollution prevention approaches.

In order to facilitate sharing of what is being learned from these pilot projects and experimental approaches, the Board of Directors of the National Roundtable agreed it would be useful to develop a summary of current state regulatory integration activities. The purpose of this report is to provide a general perspective on the approaches being used, a very brief picture of the projects being undertaken in individual states, and a list of appropriate people to contact for in-depth information or for updates. Much of the information in the report on individual state programs was provided to the Board by Roundtable members.

The focus of this report is specifically on integration of pollution prevention into regulatory operations; it is not meant to be a comprehensive picture of any state's pollution prevention activities. Incentives, programs, peer match, grants, technical assistance, and other voluntary pollution prevention efforts fall outside the scope of this project.

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<sup>1</sup> Former EPA Deputy Administrator Henry Habicht, in a memorandum to EPA staff (May 28, 1992), defined "pollution prevention" as being "source reduction" as defined under the Pollution Prevention Act, which includes any practice which reduces release of pollutants prior to recycling, treatment, or disposal. A few state programs, however, also include at least some recycling within the scope of their pollution prevention programs.



## **Program Elements**

What activities contribute to integration of pollution prevention into regulatory programs? Approaches are evolving, and vary widely from state to state. The areas summarized in the matrix and within individual state summaries reflect a wide range of current projects and directions.

### **Legislation**

#### **Facility Planning**

At least twenty states now require or promote pollution prevention planning for some of the facilities subject to environmental regulation. In most (but not all) cases, planning requirements are specifically established under state statute.

#### **Other Pollution Prevention Legislation**

Beyond facility planning requirements, pollution prevention legislation, in some states, promotes multimedia coordination, mandates integration of databases to promote multimedia pollution prevention, requires pollution prevention training for regulatory personnel, or requires a state regulatory agency to make pollution prevention technical assistance referrals for facilities found to be out of compliance. This category includes legislation involving integration of pollution prevention into state regulatory programs. For the purposes of this report, this category does not include authorizing legislation for non-regulatory technical assistance, economic incentives or financial support for pollution prevention.

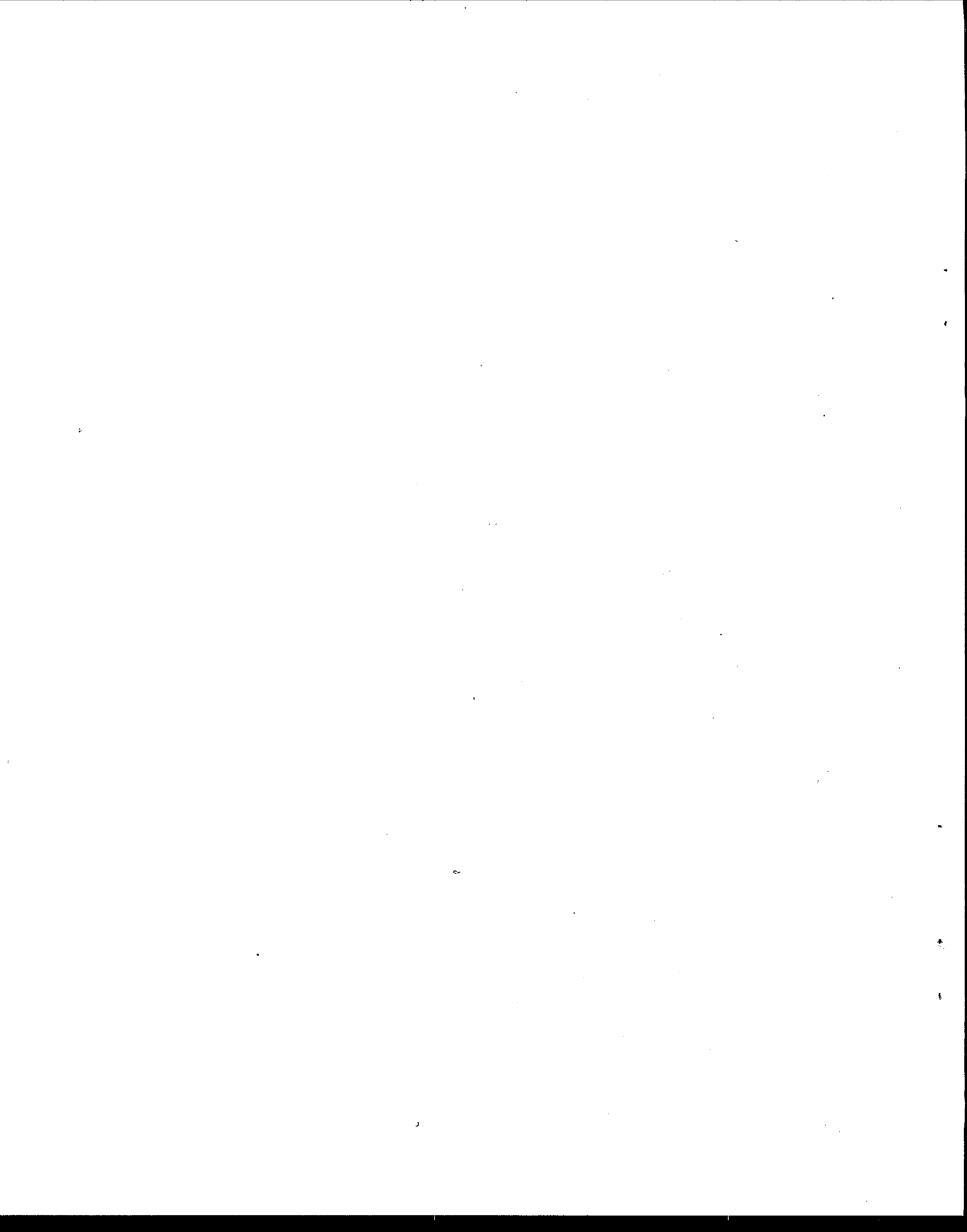
### **Permitting**

#### **Multimedia**

A few states are exploring the possibility of writing permits which cover more than one medium at once. By asking permit writers from more than one program to review a proposed permit, or by asking the firm to consider its overall process with all of its impacts, the state may reduce cross-media transfers and assist in ascertaining additional pollution prevention opportunities.

#### **Pollution Prevention**

Whether or not permits are multimedia in scope, prevention approaches may be used in the permitting process. For example, states may require firms to develop pollution prevention plans for processes as part of the permit application package. As permit writers become more sophisticated in their understanding of manufacturing processes, they can foster a dialogue with applicants about prevention alternatives.





## **Inspections**

### **Multimedia**

A few states have explored the possibility of multimedia inspections. These may involve single-media inspectors trained to evaluate a facility with respect to all media concerns, teams of inspectors with all the media specializations, inspectors with in-depth knowledge of all aspects of a particular industry, or some combination of these approaches. Objectives of multimedia inspections might be potential pollution prevention gains from evaluating all aspects of a facility simultaneously, or efficient use of agency resources.

### **Pollution Prevention**

This includes at least two types of activity: inspectors providing some form of pollution prevention technology transfer, and inspectors making referrals to technical assistance programs, either during the inspection or in follow-up. Such pollution prevention inspection activities are sometimes done by individual media programs, and sometimes as part of a multimedia inspection effort. In some cases inspectors hand out brochures for the state's technical assistance program, discuss the content of a site's waste minimization plan, or look over facility pollution prevention plans. Or, with a notice of noncompliance, officials may make a stronger referral to technical assistance or consulting services or even suggest developing specific pollution prevention options.

## **Enforcement**

### **Multimedia**

In some cases, settlements may involve multimedia requirements. Such requirements are most likely where the enforcement action is based on multimedia inspections.

### **Pollution Prevention**

Several states are using enforcement actions to encourage companies to use pollution prevention to come into compliance. The primary goal is always to bring the firm into compliance. Both officials and regulated entities are finding that pollution prevention can be an effective long-term strategy, less likely to be inadequate in a few years, and less likely to cause cross-media transfers, than are traditional abatement approaches. Settlements may include either particular pollution prevention measures or specify the development of a waste-reduction plan.

## **Data Integration**

A few states have made data integration a goal; such data may be used to support either pollution prevention technical assistance efforts and/or regulatory targeting. In addition to uses of data for targeting technical assistance (which is beyond the scope of this paper), data on chemical use, emissions or discharges, and compliance can be overlaid to gain a more accurate picture of a facility's operations and to identify any gaps. Historically, the use of

separate databases tracking different information (perhaps even using different names for the same facility) has made it harder for people from different programs to coordinate their activities with respect to a firm or site. Integration may take the form of development of a new database which incorporates or cross-references older compliance databases. Some states are now making innovative use of existing data to improve their overall program operations.

Facility-based databases represent a shift in the way that environmental regulators think about regulated entities. Rather than a plant looking only like a set of stacks to an air quality inspector, or only a wastewater outfall to a water permit writer, or only a generation and storage area to a hazardous waste inspector, the plant becomes an entire facility which exists to make one or more products and happens to produce one or more byproduct or waste streams incidental to making that primary product. By at least cross-referencing the various data elements associated with a given facility, regulators make it easier to see the big picture at a plant, and reduce the likelihood that a pollution prevention opportunity (or a stream that should be reported) will be overlooked. Facility-based data management also supports efforts to prevent cross-media transfers resulting from new regulations or enforcement actions.

## **Organization**

### **Training**

Several states have begun offering training to regulatory personnel on pollution prevention. EPA HQ and Regions have assisted some states in providing training to inspectors or permit writers. Training may focus on a particular industry and its processes, or may more generally discuss pollution prevention thinking and how regulatory personnel can begin to use it.

### **Multimedia Workgroups**

Short of (or instead of) restructuring, some agencies have established multimedia workgroup processes to identify opportunities and clarify goals and objectives for multimedia and pollution prevention approaches to meeting agency regulatory objectives.

### **Integration Strategy**

Some agencies have developed, often as a result of workgroup efforts, strategies for integrating pollution prevention into their regulatory business. The development of a strategy may precede or follow pilot projects (in permitting, inspection, or enforcement) or training programs.

### **Reorganization**

In order to support these new approaches some agencies have undergone restructuring, elevating the pollution prevention group or encouraging media programs to work more closely together. In some cases, an agency might restructure functionally; for example, all permit-writers might report to a single senior manager for permitting, rather than being organized by media.

## **ORGANIZATION OF THE REPORT**

The report is arranged in the following format:

- o a chart summarizing, in the form of a matrix, the regulatory integration activities of the states;**
- o explanatory information about particular state programs (organized by EPA Region); and**
- o lists of contacts for state programs (by Region).**

# Multimedia and Pollution Prevention Activities by State Regulatory Agencies

		Legislation		Permitting		Inspections		Enforcement		Data Integration	Organization				Comments
		Facility Planning	Other Pollution Prevention	Multimedia	Pollution Prevention	Multimedia	Pollution Prevention	Multimedia	Pollution Prevention		Personnel Training	Multimedia Workgroups	Integration Strategy	Reorganization	
I	CT		X	Δ				Δ	○		Δ	Δ			
	ME	X	X		Δ	○	○	Δ	Δ	Δ	Δ	●	○		regulatory integration mandate
	MA	X	X	○	Δ	●	●	●	●	●	●	●	●	●	
	NH					○			Δ	Δ	○	●	○		
	RI				Δ		Δ		Δ		○	Δ			industry-specific
	VT	X		Δ	Δ	Δ	○		○		Δ	●	○		
II	NJ	X		○	○	Δ	Δ	Δ	Δ	Δ	○	●	Δ	●	permitting pilot
	NY	X	X	○	Δ	●	Δ	●	●	○	●	●	●		whole-facility pilot
III	DE	X	X	Δ	Δ	○					○	●	○		
	MD							Δ	Δ		Δ				
	PA			Δ	Δ	Δ	Δ			Δ	●	●	●	○	reg. mandate for planning for HW & ISW
	VA		X		Δ		Δ		Δ		●	●	○	○	
	WV														
IV	AL														
	FL		X	Δ	Δ	Δ	○		○	○	●	Δ	○	○	
	GA	X			○		Δ		○	Δ	Δ		●		
	KY					○	Δ	○	○		○	○	Δ		regional pilots
	MS	X								Δ	Δ	Δ			
	NC	X			Δ		Δ		○	●	○	Δ	Δ		
	SC										○				
	TN	X									●				
V	IL	X	X	●	○	●	○	●	○	○	●	●	○		
	IN		X				Δ		○	○	●	●	○	○	P2 cannot be mandated
	MI				Δ		○	○	○		Δ	Δ	Δ		
	MN	X	X		○	●	○	○	●	○	○	●	●		
	OH		X		○				●		○	●	○		
	WI		X		○	○	Δ	●	○	○	○	●	○		
VI	AR														
	LA								Δ		Δ				
	NM														
	OK				Δ				Δ		Δ	●		Δ	
	TX	X			○		○	○	○	Δ	Δ	○		○	
VII	IA	X			○		○				Δ				
	KS				Δ		○		○		○	○			
	MO														
	NE					Δ	○			Δ	Δ	Δ			
VIII	CO			Δ	○	Δ	Δ	Δ	○		●	●	○	Δ	efforts gaining momentum
	MT														
	ND					○		○			○				
	SD				Δ		Δ		Δ		Δ		Δ		
	UT					Δ		○	○		○	●	Δ		
	WY				Δ		Δ		Δ		○		Δ		
IX	AZ	X			Δ		Δ		○	Δ	○	●	○		
	CA	X	X		●		●		●		●	●	○	○	mixture of local and state activities
	HI						○				○	○			
	NV						Δ		Δ		○			Δ	
X	AK		X	Δ	○		Δ		○	Δ	●	○	○	Δ	
	ID			Δ		○					○			●	
	OR	X		○	○	Δ	○	Δ	Δ	Δ	●	●		○	
	WA	X	X		Δ	Δ	Δ				○	○	Δ	Δ	

## KEY

● Well-established

○ Some work  
completed

Δ Planned or  
recently initiated

# ***Regulatory Integration Activities, Region I***

## **Explanatory Notes**

### **CONNECTICUT**

#### **Legislation**

General pollution prevention policy and philosophy were established by P.A. 91-376; manufacturers may be required to use pollution prevention as the primary means of coming into compliance with state regulations.

#### **Permitting**

DEP has been exploring permit conditions which promote pollution prevention.

#### **Organization**

A workgroup with representation from various media programs has recently been constituted, and some internal pollution prevention training has been conducted. DEP has been developing improved management practices for hazardous waste, and making regulatory efforts to reduce packaging and toxic constituents in packaging. The Department's annual strategic plan sets pollution prevention goals.

### **MAINE**

#### **Legislation**

The 1992 Amendments to the Reduction of Toxics Use, Waste and Release Act establishes the Office of Pollution Prevention within the Department of Environmental Protection. The Office is to review Department programs and make recommendations to the Commissioner on the integration of pollution prevention into its programs. In addition, the Office ensures that Department rules, programs, and activities are consistent with and are not barriers to prevention goals.

#### **Organization**

Maine has located an Office of Pollution Prevention (OPP) within the DEP to administer the state's TUR Law and its Small Business Assistance (CAAA) Program, and to facilitate Industry/DEP Pollution Prevention Teams in Total Quality Environmental Management (TQEM) projects. The TUR staff (4) works with companies to help meet state mandated reduction goals for hazardous waste, toxic release and use. TQEM Teams are underway at about 35

companies. More companies are waiting to get in as resources become available. Cross training of all DEP compliance and technical staff is helping to identify opportunities for pollution prevention use in many areas of the program.

## **MASSACHUSETTS**

### **Permitting**

A few multimedia permits have been issued by DEP throughout the state. The state-wide permit coordinator is Deborah Gallagher (617-292-5572). Bill Lamkin is the director of the Source Reduction Permit Project (SRPP) based in the Northeast Regional Office in Woburn. The project will include evaluation of several different models for permitting facilities.

### **Inspection**

It is now standard practice, for all regions statewide, for compliance inspections to be facility-wide inspections including all relevant media inspections plus screening for unregistered waste streams in all regulated media. By organizing the inspection report by production unit, inspectors find it easier to articulate source reduction opportunities they have identified. Inspectors provide some technology transfer during inspections and in follow-up correspondence, and they make referrals to the Office of Technical Assistance (OTA) and the Toxics Use Reduction Institute (TURI). In addition, multimedia workgroups composed of DEP and EPA middle managers and senior field staff have been established to develop a facility-wide inspection protocol and new EPA reporting criteria.

### **Enforcement**

It is now routine statewide for enforcement actions to cite violations within more than one program if such violations are found. Ordinarily these take the form of administrative actions. DEP has also negotiated some multimedia consent orders. All enforcement routinely includes referrals to OTA and TURI. Where inspectors have noticed pollution prevention opportunities, they make suggestions in the NONs' cover letters. In some cases, DEP has required toxics use reduction planning or has mitigated penalties if firms take actions which reduce toxics use.

### **Data Integration**

The Massachusetts Facility Master File (FMF) cross-references all kinds of facility data cross-media. TUR reporting information is included as a subset of this database. After October 1, 1993, the FMF will be used to track and report compliance and enforcement accomplishment data. In addition, DEP has integrated permit data on a system which develops timelines and tracks statutory deadlines.

### **Organization**

DEP's Source Reduction Policy Task Force, with representation from each of the media programs, was formed in 1987 to explore and develop source reduction options. Since that time, several ongoing advisory committees have been established to provide input from stakeholders outside the Department. In February 1993, the Department reorganized the

Bureau of Waste Prevention in order to support the facility-wide approach and to facilitate integrating a prevention bias throughout industrial regulatory activities. The new organization includes an Office of Program Integration and adopts functional (i.e., compliance/enforcement, permitting) supervisory roles in addition to the media-based expertise and supervision. The Office will write three-year workplans on how to implement toxics use reduction and integrate cross-media approaches for compliance and enforcement, permitting, regulations and policy, training, outreach, program planning, EPA accomplishment reporting and facility reporting. Also, within the Bureau of Waste Prevention, the Department maintains a TUR program to oversee implementation of TUR reporting and planning requirements.

## **NEW HAMPSHIRE**

### **Organization**

A multi-media task force with representation from each division has been meeting regularly since June 1992. The group also includes invited participants from state-level OSHA, public health, and the NH Business and Industry Association. The Assistant Commissioner attends the monthly meetings. The group has drafted and adopted a statement of purpose and objectives, and has also drafted a pollution prevention definition, which was adopted as DES policy. Currently, the Task Force is drafting a pollution prevention strategy for the Department, and is working on a project to incorporate pollution prevention into DES compliance activities.

The Task Force has also developed a list of potential regulatory barriers and is working with EPA Region I on media grant flexibility. DES is also closely associated with the Northeast States Pollution Prevention Roundtable.

In order to select candidate firms for pollution prevention outreach or possible multimedia projects, the group is in the process of gathering targeting information from each of the program offices and is currently considering ways to consolidate these approaches (some use GIS-based data; others use information on generation and releases). DES has two very limited multimedia databases in place; one for enforcement purposes, and the other a pilot program for tracking waste generation, releases, and reductions.

## **RHODE ISLAND**

### **Organization**

DEM has expanded its nonregulatory technical assistance program with a PPIS grant intended to demonstrate and evaluate the relative effect of regulatory, policy, and in-plant technical assistance initiatives on source reduction practices in Rhode Island's textile industry. The grant is supporting state efforts to expand and incorporate statewide pollution prevention approaches into regulatory policy making and enforcement actions by state and local authorities.

## **VERMONT**

### **Inspections**

Some RCRA inspectors have been transferring technical information about pollution prevention during the inspection process. A multimedia training for inspectors will be scheduled soon. DEC has developed a multimedia inspection checklist, and is developing a multimedia inspection pilot program.

### **Enforcement**

DEC has allowed SEPs and used planning requirements in enforcement actions.

### **Organization**

The Vermont DEC's multimedia pollution prevention workgroup has drafted a charter and defined terms for internal use. The workgroup is surveying each division which has regulatory responsibility to discover what types of flexibility its regulations currently have, in order to understand what would be required to undertake a whole-facility permitting or inspection program. The survey, beyond gathering information, is intended to stimulate dialogue about what the Department can do to promote pollution prevention through its regulatory actions.

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## ***Regulatory Integration Activities, Region II***

### **Explanatory Notes**

#### **NEW JERSEY**

##### **Legislation**

The 1991 Pollution Prevention Act requires facility-wide pollution prevention planning for roughly 800 companies. The planning requirement includes three components: (1) pollution prevention plans, (2) plan summaries, and (3) annual reports. The Act also requires that the DEPE issue 10-15 facility-wide permits.

##### **Permitting**

As a pre-pilot of the whole-facility permitting and other requirements of the Act, Steve Anderson has been working with three companies to develop whole-facility pollution prevention plans and draft whole-facility permits to go with them. Permit teams will work on the additional whole-facility permits as firms volunteer to participate.

##### **Inspections**

Under the County Environmental Health Act, DEPE has delegated minor air source inspections to certified local health agencies. These inspectors have been cross-trained to notice violations of hazardous waste and water regulations.

##### **Enforcement**

DEPE has begun coordinating enforcement actions across media, within the Facility Wide Enforcement Division, and is developing a policy paper on pollution prevention and enforcement.

##### **Data Integration**

DEPE's Office of Pollution Prevention is in the process of coordinating with the Right-to-Know division (which tracks throughput data as part of NJ EPCRA submissions) to identify their joint computer needs, which will include tracking the annual report data generated under the facility planning law. Contact Shelley Heame at (609) 777-0518 for more information.

##### **Organization**

DEPE has reorganized functionally, so that (for example) all permitting programs report to one senior manager, as do all enforcement programs. Multimedia workgroups include the permit

teams which will work with the ten to fifteen facilities identified for the whole-facility permit project. Permit-writers and inspectors have participated in pollution prevention training.

## **NEW YORK**

### **Legislation**

In addition to New York's facility planning law, which addresses hazardous waste generation, DEC plans to use its statutory authority under the Environmental Conservation Law to require facility planning for air and water releases. Their draft regulations were reviewed at public hearings held in September 1993.

### **Permitting**

As of April 1, 1993, DEC's nine regions designated five to nine facilities (for a total of forty-nine) to be targeted for whole-facility permits, inspections, and enforcement actions. The targeted facilities represent more than 10% of the 400 facilities which generate over 95% of the total hazardous waste generation and toxic air and water releases within New York. The targeting criteria will include TRI and hazardous waste generation data, as well as location of sensitive receptors, public concern, ongoing enforcement, and other factors.

### **Inspections**

For the forty-nine facilities designated above, multimedia teams are designing and coordinating comprehensive, in-depth inspections. In addition, DEC is developing training for inspectors so that they are broadly schooled in the other media for which they have not previously been responsible. The first training agenda should be out into the field within a few months; more in-depth material will be delivered next year. Inspectors will be acquainted with pollution prevention planning requirements so that they can review the facility plans stored on-site as part of their inspections.

### **Enforcement**

Enforcement orders are comprehensive multi-media documents which promote pollution prevention. Cross-media coordination already occurs.

### **Data Integration**

DEC is designing (internally) a Corporate Data Model which will allow inspectors and permit writers to pull up comprehensive information on facilities. They intend to include GIS information in the system if they find it feasible to do so.

### **Organization**

As of January 1993, DEC abolished the pollution prevention unit within the hazardous waste division and established a pollution prevention unit which reports to the Deputy Commissioner responsible for all media divisions. The Commissioner issued a memorandum providing

guidance for multimedia coordination in each regional office and establishing the headquarters' pollution prevention unit ("Organization and Delegation Memorandum #92-13 -- Policy: Pollution Reduction and Integrated Facility Management"). A second memo ("Organization and Delegation memorandum #92-24 -- Organization: Pollution Prevention Initiative") attached a mission and goals statement for the group, workplan, and information on their culture change project.

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## ***Regulatory Integration Activities, Region III***

### **Explanatory Notes**

#### **DELAWARE**

##### **Permitting**

Delaware DNREC is exploring multimedia permitting: it will produce a multimedia permit which has a pollution prevention focus by the close of 1994, for a facility that is a "major" source for at least two media programs.

##### **Inspections**

DNREC has been conducting some multimedia inspections since 1988. These have been conducted when concerns arise at a facility with respect to more than one media. They are also triggered by timing – when permits in more than one medium are up for renewal, or when new facilities require several individual permits.

##### **Organization**

DNREC has formed a task force under a PPIS grant designed to support integration and institutionalization of pollution prevention into media specific regulatory programs. The entire department has received pollution prevention training. (Rather than a headquarters/regional structure, DNREC has a main office in Dover and two satellite field offices.)

#### **MARYLAND**

##### **Enforcement**

MDE has supported some multi-media compliance settlements; MDE's efforts have involved teams from all media offices. There have also been settlements with pollution prevention elements, under which fines have been mitigated for installation of pollution prevention technologies or adoption of pollution prevention measures.

##### **Organization**

General pollution prevention training for MDE staff began in the summer of 1993. MDE has a Pollution Prevention Coordinator.

## **PENNSYLVANIA**

### **Permitting**

Currently, DER is developing a plan for a pilot multi-media project. The Department is looking at New Jersey's program as possible model. Generators seeking permits for waste disposal facilities, or disposing of solid or hazardous waste in off-site TSDFs, are required, by regulation, to have pollution prevention facility plans.

### **Inspections**

DER has conducted 6 multimedia inspections. There is also a pilot program in each regulatory office to evaluate the possibility of more multimedia inspections and the potential for incorporating pollution prevention options into the programs.

### **Organization**

A Source Reduction Section was created in the fall of 1992; one of its roles is to discuss with the media offices potential pollution prevention options for regulations currently under development. An agency task force made up of all the programs is currently working on this.

Pollution prevention training was completed in October 1993. About 200 people at the various regional offices were trained. In addition, DER has institutionalized a pollution prevention component within the training academy for new field staff.

## **VIRGINIA**

### **Legislation**

The 1993 General Assembly passed a bill which establishes pollution prevention as the environmental strategy of choice for the Commonwealth. The law also codifies the existing pollution prevention technical assistance program, the Waste Reduction Assistance Program. The legislation resulted from a legislative study committee convened in 1992 representing the legislative and executive branches of government as well as industry and public interest groups. The 1993 General Assembly authorized the study committee to continue its work through 1993, and additional legislative initiatives could be developed.

### **Organization**

As of April 1, 1993, Virginia has reorganized its environmental regulatory and planning agencies into a single multimedia agency, the Department of Environmental Quality. One of the primary goals of the new agency is pollution prevention. Work completed over the past three years to promote pollution prevention (including staff training for approximately 300 employees) among the then-separate media agencies will continue within DEQ. The pollution prevention program, formerly part of the Department of Waste Management, will be located within the Division of Policy, Budget and Administration, but will have close ties to staff within the Division of Operations. WRAP will be working to institute a pollution prevention network of

DEQ staff at both the headquarters and the seven regional offices within the next few months that will have regular communication to facilitate/promote pollution prevention integration within the agency and its clients. The network will eventually extend to other state agencies responsible for pollution prevention initiatives, such as the Chesapeake Bay Local Assistant Department and the Department of Conservation and Recreation, as well as regional and local government agencies. Other activities planned for DEQ include training for inspectors, permit writers and enforcement/compliance staff (although there are already enforcement settlements that include pollution prevention).

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## ***Regulatory Integration Activities, Region IV***

### **Explanatory Notes**

#### **FLORIDA**

##### **Permitting**

While not systematic, some successful efforts have been initiated to build pollution prevention requirements into individual air, water, and hazardous waste permits. Air permits for the combustion of solid waste will require a control standard that can meet with source segregation (or separation at the facility) for heavy metals for waste to energy facilities. Some individual hazardous waste permits have included closed-loop metals recycling and water reuse requirements to reduce the volume of wastewater (and contaminants) discharged.

##### **Inspections**

In some districts, inspectors give regular referrals to the technical assistance staff. Joint multimedia inspections have been proposed for the Tampa district, but have not yet occurred. Some inspectors hand out pollution prevention brochures. In addition, under a joint agreement with the Florida Department of Environmental Regulation (DER), the Dade County Department of Environmental Resources Management (DERM) is providing pollution prevention training for all DERM inspectors -- including all media programs.

##### **Enforcement**

Pollution prevention options or credits have been incorporated into some enforcement actions on solid waste and hazardous waste; none for air yet; in water, there has been interest in several of the districts. A Pollution Prevention Credit program (similar to the federal SEP) may be applicable during enforcement actions for facilities participating in the 33/50 program. Under the Dade County DERM program (above), pollution prevention audit requirements can be incorporated into consent agreements.

##### **Organization**

Pollution prevention training has been provided for media specific program and enforcement personnel. Training was provided under the RITTA program for inspectors, but the turnover rate for inspectors is extremely high, so additional training is needed.

Under a cooperative agreement (above) between Florida DER and the Dade County DERM, all inspectors are being provided pollution prevention training.

## **GEORGIA**

### **Legislation**

Georgia has a facility planning law focused on hazardous waste reduction. Pending legislation would establish an Office of Pollution Prevention Assistance to provide more formal support to pollution prevention efforts within media programs, as well as technical assistance outreach to businesses/facilities.

### **Permitting**

Pollution prevention has been incorporated into permits, although not on a multimedia basis.

### **Inspections**

During hazardous waste inspections, inspectors check to see whether the hazardous waste reduction facility plans, required under Georgia legislation, are in place. Inspectors also ask to see if the company has a pollution prevention policy statement. A pollution prevention checklist is available for inspections, but again mostly for RCRA inspectors.

### **Enforcement**

Each program office has done SEPs for pollution prevention, although not necessarily multimedia.

### **Data Integration**

There is a data management system which has been designed to integrate data formats, although it is not as yet widely used for pollution prevention.

### **Organization**

The Pollution Prevention Strategy Task Force, working with an outside advisory committee, has written a final strategy for integration of pollution prevention into the state's media regulatory programs. It builds on current organizational structure whereby, for each media office, a single compliance officer (per facility) is responsible for permit writing, inspections, and enforcement – a structure which facilitates building pollution prevention into the regulatory framework. The strategy calls for pollution prevention training of the compliance officers, and has recommendations for looking at things in a multimedia context. The first steps, however, might be within the individual program offices.

## **KENTUCKY**

### **Inspections**

Regulatory officials within the Kentucky Department of Environmental Protection designed and conducted a pilot multimedia inspection project, with at least one multimedia inspection

conducted by each of ten state regional offices. Inspectors participating in regional multimedia pilot inspection projects promoted pollution prevention as the preferred compliance strategy during their on-site work and in resulting notifications.

## **Enforcement**

Kentucky DEP officials have included requirements for pollution prevention planning in enforcement settlements with a few large facilities, and are considering including such provisions more routinely.

## **Organization**

All of the single media programs participated in the pilot coordination efforts. Each region participated in the design of the project they conducted; the possibility for future pollution prevention enforcement settlements and additional training is considered in strategic plans. Kentucky DEP conducted pollution prevention training for regulatory personnel, followed by in-house discussions as needed to complete the projects. The training focused primarily on pollution prevention contextual issues rather than specific technologies.

## **NORTH CAROLINA**

### **Legislation**

North Carolina's legislation requires submission of any waste reduction plans as part of the permit application. However, the reduction plan is not considered part of the permit application and does not serve as the basis for the denial of a permit or permit modification.

### **Permitting**

All water quality and air quality permit holders, or applicants for a new permit or permit modification, must submit to the department a written description of current and projected plans to reduce the discharge of waste and pollutants or to reduce the emission of air contaminants under such a permit by source reduction or recycling. The written description shall accompany the payment of the annual permit fee or the application for new or modified permit. Hazardous waste generators and operators of hazardous waste treatment facilities which treat waste onsite are required to submit to the department a written description of any program to minimize or reduce the volume and quantity or toxicity of such waste at the time of the payment of the annual fee.

### **Inspections**

The Department has provided training to all environmental field staff on pollution prevention and they have additionally provided training to pretreatment coordinators on pollution prevention to be used in their local compliance efforts.

## **Data Integration**

North Carolina's Department of Environment, Health, and Natural Resources has developed a database which contains emissions and waste reduction data from a variety of sources to facilitate waste reduction assessment by the North Carolina Pollution Prevention Program. The objective of this project is to integrate multi-media environmental release data into other state-wide waste reduction efforts including technical assistance, training, grants, research, and demonstrated efforts of hazardous waste reduction.

The database contains information from the following five individual databases:

1. SARA 313 Toxics Release Inventory;
2. North Carolina State Annual Report on Hazardous Waste Generation;
3. Airs Facility Subsystem Air Quality data;
4. National Pollutant Discharge Elimination System data;
5. North Carolina Pretreatment data.

Currently, this database is used by North Carolina's Office of Waste Reduction to determine various multi-media waste releases by industries in preparation for site visits and technical assistance. Ongoing projects utilizing this data include using the data to assist industries in waste reduction plans, and evaluating the toxicological factors versus the risk factors of various chemicals in the database and directing technical assistance efforts towards the reduction of those chemicals. This database will also be used as a basis for targeting problem sectors (e.g., SICs, geographic regions, company sizes), and allocating funding, resources, and technical assistance.

## **MISSISSIPPI**

### **Data Integration**

A TRI database currently being developed for the state by the technical assistance program will be provided to the regulatory program to assist in developing and/or targeting regulatory activities.

### **Organization**

This upcoming year, the Waste Reduction technical assistance program will be doing 4 enforcement training programs for the regulatory staff to make them aware of what pollution prevention is and how to get out-of-compliance facilities in touch with technical assistance.

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# ***Regulatory Integration Activities, Region V***

## **Explanatory Notes**

### **ILLINOIS**

#### **Legislation**

Pollution prevention is well established in Illinois statutes as the preferred means of environmental protection; facility planning is considered a key aspect of implementing pollution prevention solutions to these environmental problems. Facilities pollution prevention planning is generally voluntary in Illinois. Pollution prevention will be suggested in enforcement settlements, in circumstances for which it is appropriate.

The Pollution Prevention initiative is well founded in two key statutes of the State of Illinois, the Toxic Pollution Prevention Act of 1989 (TPPA) and the Illinois Pollution Prevention Act of 1992 (IPPA). Copies are available from the Illinois EPA.

#### **Permitting**

Multimedia coordination has been in effect for several years; expedited multimedia review of pollution prevention proposals and settlements involving pollution prevention is in the implementation phase. Some pollution prevention projects have been implemented. All permits issued for hazardous waste generators include as a condition: "All permittees shall certify at least annually that the permittee has a program in place to reduce the volume and toxicity of hazardous waste that he/she generates to the degree determined by the permittee to be economically practicable and the proposed method of treatment, storage, or disposal is that practicable method currently available to the permittee which minimized the present and future threat to human health and the environment. . ."

#### **Inspections**

Coordinated inspections have been carried out by Illinois EPA inspectors for several years; planning for multimedia inspections for pollution prevention possibilities is in the implementation phase. Planning for multimedia, on-site assistance inspections has progressed and pilot projects are scheduled.

#### **Enforcement**

Multimedia enforcement actions and settlement agreements have been operational for several years; planning for multimedia inspections for pollution prevention possibilities is in the implementation phase.

Planning for expedited multimedia review of settlements involving pollution prevention is in the implementation phase; some projects involving pollution prevention have been incorporated into enforcement settlement agreements.



## **Data Integration**

Some SARA and RCRA data are utilized to prioritize and initiate contacts with companies; much additional coordination and use of data is planned for the near future.

## **Organization**

All Agency technical staff have had an initial training session; planning for a 5-element training program for staff is well underway.

Multimedia inspection and permitting coordination has been operational for several years; planning for expedited multimedia review of pollution prevention proposals and settlements involving pollution prevention is in the implementation phase of development. A Pollution Prevention Manual for Field and Permit staff is being developed which describes the integration of pollution prevention into media programs.

No reorganization is being considered nor is reorganization anticipated to accomplish the full implementation of pollution prevention into Agency programs.

## **INDIANA**

### **Legislation**

House Enrolled Act No. 1412, enacted by the General Assembly (1993) of the State of Indiana orders that pollution prevention may not be mandated by document, manual, policy or rules which would require businesses to practice pollution prevention or by means of permit conditions, enforcement actions, or other departmental actions. This does not apply to authority granted under federal law. Notwithstanding, the Department of Environmental Management shall present pollution prevention as an option to businesses in permit conditions, enforcement actions, or other departmental actions.

### **Organization**

In May of 1993, the Indiana Department of Environmental Management (IDEM), decided to embark on a comprehensive pollution prevention training program for staff. A \$100,000 grant to the Environmental Management Institute through Indiana University funded the project. According to the grant agreement, the project should have begun on June 1, 1992 and ended two years later on May 30, 1994. However, the agreement was not formally approved by the State until June 18, and notice was not provided to the Institute until June 30, 1992. Despite the delay, the Environmental Management Institute committed to complying with the original schedule.

This training was designed by the Environmental Management Institute to assist IDEM staff to encourage the regulated community to make the shift from pollution control and treatment to pollution prevention, to incorporate prevention concepts into management decisions, and to ensure consistent prevention applications in multimedia environmental programs.

IDEM appointed a Pollution Prevention Training Workgroup with representatives from each

office directly affected to guide the program. This group meets on a bi-monthly basis to determine training needs, provide guidance to the three phases of this program, and to discuss cross-media issues. The initial phase of the training program consisted of a survey by the Environmental Management Institute of similar programs in other states, followed by development and implementation of actual training sessions.

The project accomplishments to date include:

- Development of the "Pollution Prevention: Indiana's Choice for Environmental Protection," coursebook;
- Phase I (awareness) training for a total of 617 staff (470 technical and 147 non-technical) was completed in April 1993;
- Continued course refinement to meet present and future needs;
- Excellent evaluation response rates and overall ranking by staff;
- Compilation of ideas from staff on various aspects of pollution prevention;
- Planning for continued Phase II (technical-industrial) and Phase III (function-specific) pollution prevention training.

## **MICHIGAN**

### **Permitting**

Michigan is planning on evaluating permits issued in the future to determine whether pollution prevention activities can be incorporated into facility specific requirements. This evaluation will be taking place throughout all media programs.

### **Inspections**

In the hazardous waste program, inspectors are currently evaluating a generator's pollution prevention program during the inspection and are making appropriate referrals to the technical assistance program. Plans are being made to move this type of activity into other media programs.

### **Enforcement**

Settlement of enforcement actions routinely includes discussion of a pollution prevention offset to penalties in the solid and hazardous waste programs. Plans are underway to incorporate pollution prevention settlements into the other media programs. There is also a concerted effort to undertake multimedia enforcement cases in the state. While the driving force for this consolidation of efforts has not been pollution prevention, it is planned that promoting pollution prevention settlements in the individual media programs will change the focus of the multimedia enforcement activities to pollution prevention as well.

## **Organization**

Grant money has been requested to undertake focused multimedia training for all DNR inspectors, permit writers, and enforcement specialists.

Planning is underway to convene a multimedia workgroup to discuss integration of pollution prevention into all media programs.

It is expected that an integration strategy will be the final output from the multimedia workgroup.

## **MINNESOTA**

### **Legislation**

Under the 1990 Toxic Pollution Prevention Act, all TRI reporters are required to prepare plans for eliminating or reducing the generation or release of toxic pollutants. The 1993 legislature expanded the types of facilities required to plan pollution prevention and report progress. The Minnesota Pollution Control Agency (MPCA) reviews annual progress reports, and may review facility plans under certain circumstances.

### **Inspections**

The Minnesota Pollution Control Agency (MPCA) has conducted a pilot multimedia inspection and enforcement project, known as the Lake Superior Partnership (LSP), with EPA support. Teams of inspectors from the MPCA media programs and from the Western Lake Superior Sanitary District (which has responsibility for wastewater and solid waste management in Duluth and its suburbs) have jointly conducted a series of multimedia inspections for a range of facilities which discharge to the District. With the end of federal funding for the project, it has been scaled down to six major-facility (permits in more than two media programs) inspections each year, utilizing regional inspection staff.

Another multimedia/pollution prevention compliance inspection has been initiated in the Minnesota River Basin area, utilizing regional inspection staff.

### **Enforcement**

During the Lake Superior Partnership inspections, all enforcement actions, at least initially, were coordinated among divisions. This coordination resulted in some multi-program NOV's or Letters of Warning. This will be continued, when appropriate, in the Minnesota River Basin project.

Multi-program enforcement actions are routinely pursued by program staff, where they are appropriate. Enforcement instruments routinely include requirements to submit public versions of pollution prevention plans. Negotiants are encouraged to propose pollution prevention projects as part of enforcement instruments.

## **Data Integration**

MPCA is developing a new multi-program integrated database called Project Delta. This database will integrate all compliance data and has been funded by the state legislature.

## **Organization**

In MPCA, a pollution prevention staff team meets twice each month to discuss multimedia inspection and permitting possibilities. Some training of regulatory personnel, including some inspectors from each of the media programs, has been initiated within MPCA.

## **OHIO**

### **Legislation**

Legislation passed in 1992 requires underground injection facilities to prepare waste minimization plans for industrial wastes generated at these facilities.

### **Permitting**

Pollution prevention plans are required for both hazardous waste TSDFs and underground injection well permits.

### **Enforcement**

Pollution prevention requirements have been incorporated in some environmental enforcement cases. Pollution prevention related conditions in settlements allow projects that reduce waste and emissions beyond levels required through pollution regulations, and may include reduced penalties where a facility will develop a pollution prevention plan or install source reduction processes. Waste minimization/pollution prevention provisions have been most used in settlements involving hazardous waste, but have also been used in cases involving water pollution (particularly under the pretreatment program) and air pollution. Ohio EPA has developed a tracking system, and is making an effort to evaluate the results of such settlements.

### **Organization**

Pollution prevention training for Ohio EPA staff has focused on contextual issues, and on what staff can do about prevention in their jobs now – for example, advocating that they promote prevention or make referrals to technical assistance.

Ohio EPA is in the process of developing a multimedia pollution prevention strategy, which is intended to encompass the full range of agency activities. An initial draft has already been completed, and a final draft is expected later in the year.

The Governor announced the formation of a Pollution Prevention Development Workgroup in 1991; the Workgroup has the responsibility of formulating and coordinating pollution

prevention activities involving both state government agencies and business. Within Ohio EPA, all divisions have been directed to work with the Office of Pollution Prevention in developing agency pollution prevention strategy, and to designate responsible staff.

## **WISCONSIN**

### **Legislation**

Wisconsin's pollution prevention law does not mandate pollution prevention facility planning. A separate law requires waste reduction planning for medical waste.

Wisconsin's Pollution Prevention Law (1989 Wisconsin Act 325) establishes the framework for its Pollution Prevention Program. The law establishes a basis for promoting pollution prevention, drawing on the strengths of three agencies. The Wisconsin Department of Natural Resources through its Office of Pollution Prevention coordinates DNR's activities with other agencies and the public creating a focus for multimedia policy development, training staff, and identifying pollution prevention reporting and environmental needs. The University of Wisconsin Extension provides education, training, and technical assistance for pollution prevention. The Wisconsin Department of Development provides waste reduction audit grants.

### **Permitting**

A pilot effort involving the development of a standard facility description that can be used by individual permitting programs is being started.

Industrial wastewater discharge permits that have permit limits for toxics have waste minimization studies incorporated into their compliance schedules. Municipalities with pretreatment programs submit annual reports which include a summary of pollution prevention plans. Many Wisconsin TSD licenses incorporate standard RCRA waste minimization certification language. Pollution prevention strategies are evaluated where feasible, during the air permit review process.

### **Inspections**

The Agency encourages multimedia inspections when appropriate. Several of DNR's district offices have begun coordinating inspections for selected facilities. A pilot effort in DNR's Southeast District is working to merge hazardous waste and pretreatment inspection forms for multimedia inspections. Approximately 15 to 20% of the inspections conducted in SE Wisconsin are multimedia.

Hazardous waste, wastewater and other media program staff promote pollution prevention during inspections by handing out publications and encouraging companies to make use of Wisconsin's pollution prevention technical assistance programs. Hazardous waste inspection forms include several questions on waste minimization.

## **Enforcement**

The DNR's Office of Environmental Enforcement services all media programs. While most enforcement cases are single media, multimedia enforcement cases have been undertaken at selected facilities.

The hazardous waste management program developed guidance for inspection followup for hazardous waste minimization certification and inclusion of pollution prevention and recycling provision in enforcement settlements. DNR's Southeast District's pilot effort for incorporating pollution prevention into enforcement conferences has been adopted in several other areas of the state. The attorney general included pollution prevention stipulations in 8 of 44 enforcement cases in FY 1993.

## **Data Integration**

Over 10 years ago, the Department established a common facility identification code. The code is included in all media databases and the Agency's data system can easily identify environmental quality permits that apply to a facility. A pilot project builds on this capability and has developed an integrated toxics data report that includes information from TRI, hazardous waste, air, and waste water programs. The pilot project is evaluating options for making these type of retrievals more readily available to agency staff.

## **Organization**

Most DNR environmental quality staff received basic awareness pollution prevention training in 1991 or 1992. A full day pollution prevention training session was held for all air management staff in 1993. Most hazardous waste inspection staff have attended two or more days of pollution prevention training or workshops in the past several years.

DNR has an inter-program Pollution Prevention Advisory Committee (PPAC) that helps coordinate Agency pollution prevention activities. In addition, cross-media work groups and technology teams are routinely set up to address cross media issues in the Agency. Current groups include a Pulp and Paper Technology Team that is participating in a Pollution Prevention Partnership project between the pulp and paper industry and the Wisconsin DNR; a small business committee; and a group working on a pilot project to test the feasibility and value of coordinating individual regulatory programs' technical assistance, and permitting and compliance activities in Southeast Wisconsin. DNR Environmental Administrators have regular retreats to encourage discussion of cross-program issues such as pollution prevention.

In 1992, the Department developed a Pollution Prevention Implementation Plan that identifies activities that each program and regional office is undertaking to promote pollution prevention and integrate it into its ongoing regulatory program. Pollution prevention and toxics waste reduction has been one of the DNR Secretary's strategic objectives in the past several years. The concept of waste reduction and pollution prevention have also been incorporated into the Division for Environmental Quality's Strategic Plan and in the strategic plans of each of the individual media programs.

No reorganization is anticipated at this time. The Office of Pollution Prevention serves a coordinating function for pollution prevention activities undertaken by individual media program.

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## ***Regulatory Integration Activities, Region VI***

### **Explanatory Notes**

#### **LOUISIANA**

##### **Enforcement**

The Department of Environmental Quality is developing a policy (and model settlement agreement) for supplemental environmental projects (SEPs) designed to promote incorporation of waste reduction and pollution prevention into enforcement settlements. Many of the guidelines on use of SEPs are based on EPA's SEP policy.

##### **Organization**

Pollution prevention training is being provided for RCRA inspectors.

#### **OKLAHOMA**

##### **Organization**

The process of implementing an intra-agency pollution prevention training program for media-specific inspectors and permitting staff has been initiated. Further work to develop this program is on-going.

The Pollution Prevention Workgroup is a multimedia workgroup, composed of members working in the air, water, and solid and hazardous waste programs. This workgroup planned and presented the first statewide pollution prevention conference, and has plans for two additional 1993 conferences. The workgroup also has been very active in initiating pollution prevention projects, such as the generation of state-specific pollution prevention literature and the initiation of a statewide voluntary toxics reduction program -- Target '98.

On July 1, 1993 many of the state's environmental programs, including the pollution prevention program, were consolidated under the Department of Environmental Quality. The pollution prevention program was placed into a non-regulatory setting as part of a highly visible, service-oriented division called the Customer Assistance Program.

#### **TEXAS**

##### **Legislation**

The Waste Reduction Policy Act of 1991 requires facility planning for both RCRA and TRI reporters.

## **Permitting**

The Texas Water Commission (TWC) has written permits, mostly in the RCRA program, which incorporate pollution prevention requirements. While considering New Jersey-type multimedia permitting, current pollution prevention permitting is single medium.

## **Inspections**

Field operations use a checklist for RCRA inspections which includes some waste minimization types of questions. Beginning in January 1994, inspectors will verify that pollution prevention plans are in place. Inspectors will not be judging the adequacy of the plans, but will be looking at whether actions are being started.

## **Enforcement**

TWC incorporates pollution prevention into settlements on a case-by-case basis. Several have been written; most are multimedia focused. Currently, TWC is developing Supplemental Environmental Projects (SEPs) in which out-of-compliance facilities perform a pollution prevention project in lieu of an administrative penalty for violation.

## **Data Integration**

TWC has developed a data management system that would allow integrated use of TRI and RCRA hazardous waste data elements; also trying to build in other media data links (air, water).

## **Organization**

TWC has done both internal and external training; internal targeted to inspectors and permitting staff; external targeted to certain industries.

The Waste Reduction Advisory Committee (including industry and academics) helped develop an implementation strategy for the facility planning law. One subcommittee of the WRAC is the Annual Reporting Workgroup which focuses on annual pollution prevention reporting.

The 72nd legislature created an Office of Pollution Prevention in the Texas Water Commission (TWC) in order to give pollution prevention high visibility. This office reports to the Executive Directors across all media programs. TWC and the Air Control Board have now merged into a single agency called Texas Natural Resource Conservation Commission; hope is that reorganization will promote multimedia approach to pollution prevention.

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## ***Regulatory Integration Activities, Region VII***

### **Explanatory Notes**

#### **IOWA**

##### **Legislation**

The Iowa legislature has passed voluntary facility planning legislation but has not funded the program to implement it.

##### **Permitting**

Permit writers have required waste reduction planning as part of the application review process. Some permit writers and inspectors have been trained on pollution prevention principles.

##### **Inspections**

Inspectors provide referrals to Iowa's technical assistance programs for large and small businesses; they also encourage pollution prevention approaches, and where they are familiar with the technologies, may suggest alternatives. They do not recommend particular solutions.

##### **Organization**

The state of Iowa has received a grant which will fund pollution prevention training of personnel working for the Environmental Protection Division.

#### **KANSAS**

##### **Permitting**

To date, KDHE has not issued any multimedia permits, but the department is exploring both multimedia permitting and the incorporation of pollution prevention provisions into permits. Language in the current Kansas hazardous waste, solid waste and air quality statutes encourages pollution prevention.

##### **Inspections**

Inspectors make referrals to technical assistance programs. They also promote pollution prevention workshops.

## **Data Integration**

KDHE is in the process of designing an integrated data management system that will allow it to evaluate a facility with regard to all permits issued, compliance status and any pending or existing enforcement action.

## **Organization**

KDHE recently designated one FTE to direct the Office of Pollution Prevention – outside the media-specific regulatory programs. The primary goal of this office is to plan and coordinate the statewide pollution prevention program with emphasis directed toward incorporating pollution prevention concepts into existing regulatory activities such as rule-making, enforcement and the permitting process. A departmental pollution prevention task force and an advisory task force will be formed to address issues and concerns that arise with the integration of pollution prevention activities into the regulatory process. KDHE employees have been trained on pollution prevention under RITTA and PPIS.

## **NEBRASKA**

### **Inspections**

RCRA inspectors have assisted in providing waste minimization technical assistance. The air and water programs are exploring ways inspectors can promote pollution prevention. The various inspection programs are currently doing coordinated multimedia inspections.

### **Data Integration**

DEQ is assessing and coordinating data needs as it explores the value of an integrated data management system which incorporates or accesses air, water, hazardous waste, and TRI/Right-to-Know data.

### **Organization**

DEQ is planning training for compliance inspections. Within the next 2-3 year timeframe, DEQ will be developing video and other training materials, available to both staff and industry.

DEQ is also planning on putting together multimedia teams to spread the word about pollution prevention in their respective programs.

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## ***Regulatory Integration Activities, Region VIII***

### **Explanatory Notes**

#### **COLORADO**

##### **Legislation**

Under the 1992 state Pollution Prevention Act, pollution prevention is the environmental management tool of first choice. The Pollution Prevention Advisory Board (created by the Act and appointed by the Governor) will determine how to implement this mandate. The bill raises money from EPCRA reporters to support a public outreach and technical assistance grants program.

##### **Permitting**

The Colorado Department of Health has had pollution prevention sections incorporated in some RCRA permits, and new permits are now required to have pollution prevention sections. At the local government level, requirements for pollution prevention planning have been incorporated into individual zoning permits.

##### **Inspections**

Some targeted multimedia inspections have been carried out.

##### **Enforcement**

A policy has been developed in the hazardous waste division allowing reduction of fines where expenditures are made to achieve compliance through pollution prevention initiatives.

##### **Organization**

The current program plan focuses on integrating pollution prevention into other regulatory programs and building a multimedia pollution prevention effort involving both all the media programs within the Department of Health and relevant programs in other agencies. An advisory board supports planning and implementation of pollution prevention initiatives. Some pollution prevention training has been provided for regulatory staff, particularly for POTW operators.

#### **NORTH DAKOTA**

##### **Inspections**

The Department conducts multimedia inspections on an "as needed" basis; formal pollution prevention has not been the motivating factor.

## **Enforcement**

The Department conducts formal multimedia enforcement actions on an "as needed" basis; again, pollution prevention is not the primary motivator.

## **Organization**

EPA Region VIII assisted in training regulatory personnel on pollution prevention. The Department recently conducted a multimedia inspection training session. The training was at the orientation level and pollution prevention principles were not addressed *per se*.

## **SOUTH DAKOTA**

### **Permitting**

Possible pollution prevention approaches and requirements are being incorporated (or considered for incorporation) into existing permitting regulations.

### **Inspections**

Pollution prevention approaches being informally included in inspection procedures.

### **Enforcement**

Use of enforcement activities to encourage pollution prevention being explored. Additional pollution prevention awareness will be encouraged in future legislation.

### **Organization**

Training was assisted by Region VIII. Integration strategy is in the works. The goal of the current PPIS-funded project is to establish a statewide, multimedia pollution prevention program which identifies, integrates and expands existing pollution prevention and related state programs into a formal, coordinated, sustained statewide pollution prevention program.

## **UTAH**

### **Inspections**

Part of the current internal planning effort at DEQ is consideration of promoting multimedia inspections.

### **Enforcement**

DEQ has had a few projects where pollution prevention, either single medium or multimedia, has been part of the settlement agreement.

## **Organization**

DEQ is providing pollution prevention training to regulatory staff, either through coordinators or consultants.

There is an internal DEQ roundtable, which includes representatives from each of the agency's divisions, which is responsible for developing departmental pollution prevention goals. DEQ senior managers had a retreat in June of 1993 in which one of the major topics was the scope of the pollution prevention effort.

DEQ conducts pre-design conferences for businesses considering location in Utah. The purpose of the conferences is to inform businesses about Utah environmental regulations. The meetings are multi-media and include pollution prevention issues.

## **WYOMING**

### **Permitting**

Pollution prevention integration into permitting activities is on an informal basis, with the support of the new pollution prevention program.

### **Inspections**

Pollution prevention integration into inspections and related compliance activities is on an informal basis.

### **Enforcement**

Integration of pollution prevention concepts and approaches into enforcement actions is on an informal basis.

### **Organization**

Personnel received pollution prevention training with Region VIII support. Integration strategy is currently under development.

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## **Permitting**

Pollution prevention requirements are being incorporated into a diverse array of state and local permits. At the state level, the Department of Toxic Substances Control (DTSC) has guidance for permit writers for hazardous waste facilities instructing them to look at pollution prevention facility planning documents (SB14) during the permitting process; if there are elements in the plan which have not been implemented, an effort should be made to include them as permit requirements. Similarly, some of the state's regional water quality boards have incorporated waste minimization requirements into NPDES permits. Because of high concentrations of heavy metals, the San Francisco Bay Regional Water Quality Board identified target sources for waste reduction and feasible waste minimization technologies and measures, and provided estimates of the program's costs both to the POTWs in the San Francisco area and to targeted sources. The Board has issued permits to the POTWs requiring that the pilot waste minimization programs:

- be tailored to address the targeted industrial sector(s),
- establish best management practices and waste minimization alternatives for the targeted industries, and
- require waste minimization plans in response to industry violations and as a condition of permitting for new permit applicants.

In response to these requirements, three POTWs (Palo Alto, San Jose/Santa Clara, and Sunnyvale) identified specific sources of heavy metal problems, and established discharge requirements for permittees which included specific pollution prevention measures and/or planning requirements.

In another local program, the Orange County Sanitation Districts established waste minimization requirements for permittees, including mass emission rate and water flow limits. Permittees must develop plans to both conserve water and to utilize waste minimization approaches for reducing releases of pollutants to the sewers.

While specific pollution prevention requirements are not stipulated in air permits, many of the new air permit requirements are so stringent that they can only be met by substitution or product change, and many of the recommended emission reduction approaches do involve pollution prevention measures.

## **Inspections**

A focus on pollution prevention opportunities has been incorporated into many state and local programs. DTSC inspectors have a checklist which includes pollution prevention elements, including questions on whether the facility has a pollution prevention facility plan. In addition, inspectors may recommend consideration of specific pollution prevention options, either verbally or in writing.

Many local health department and POTW inspectors have checklists which include pollution prevention elements, and/or are trained either to include pollution prevention elements in the

provide pollution prevention advice, or to supply the facility with technical brochures or information. For example, the Los Angeles County Sanitation Districts has pollution prevention checklists for many of the types of facilities which they inspect. Similar activities are carried out by hazardous waste inspectors for the Alameda County Department of Environmental Health and the Los Angeles County Fire Department.

## **Enforcement**

Pollution prevention elements have been included both in settlements of state hazardous waste non-compliance enforcement actions and in POTW settlements with indirect dischargers. The largest single example is the 1988 consent agreement between DTSC and Texaco; \$3.95 million of the total \$8.95 million penalty was to be used for a waste reduction audit, and for implementation of some of the measures identified as beneficial in the audit.

Orange County Sanitation District provides an example of incorporation of pollution prevention requirements into enforcement actions by POTWs. As part of the enforcement requirement, a company may be required to carry out a pollution prevention assessment, and then to carry out those actions which are shown to be economically feasible.

## **Organization**

All of California's state regulatory programs are now included under the umbrella of the recently-formed California EPA; the formation of this organization has superseded the previous multimedia state agency roundtable. The Office of Pollution Prevention and Technology Development in the Department of Toxic Substances Control (DTSC – a regulatory agency which is part of California EPA) is responsible for enforcing requirements and reviewing plans under the SB14 facility planning requirements. It has also worked to provide regulatory incentives for generators of incinerable hazardous wastes to voluntarily adopt waste reduction plans for those wastes (e.g., guarantees of expedited permit reviews).

Multimedia pollution prevention training has been provided to many state and local agency regulatory personnel. Some of this training was supported by a federal grant, and coordinated through the Local Government Commission, a non-profit organization providing support for numerous intergovernmental efforts throughout the state.

Below the state level, DTSC has supported the development of local pollution prevention efforts with a PPIS grant which has been used to establish local roundtables to provide a role in coordinating and promoting pollution prevention efforts involving the various local government agencies with environmental responsibilities within the regions. These local efforts include the whole gamut of activities from education and technical assistance to permitting and enforcement. The first of the local roundtables to be formed (in 1988) is now called the Southern California Pollution Prevention Committee, and includes agencies from Santa Barbara through San Diego. Two additional committees have also been established – the Bay Area Hazardous Waste Reduction Committee, including agencies in the area of San Francisco, and the Central Valley Hazardous Waste Minimization Committee, which includes agencies in the area surrounding and including Sacramento. A Consortium of California Pollution Prevention Committees serves both to coordinate the efforts of the regional committees, and to link them to the California EPA.

