

**WASTE**  
**INDICATOR 10**

*“Number of RCRA corrective actions and LUST cleanups completed per unit time or cumulative.”*

**CONTACTS**

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## SCREENING RESULTS: Overview

Under the Resource Conservation and Recovery Act (RCRA), EPA has the authority to regulate wastes from “cradle-to-grave”. Facilities conducting operations that include the treatment, storage, or disposal of hazardous material are required to have a permit under RCRA. Under RCRA, EPA also identifies and regulates corrective actions at (or approves state programs for) contaminated sites at existing or future RCRA permitted facilities<sup>7</sup>. The 1986 amendments to RCRA added issues related to potential and actual contamination from underground storage tanks and leaking underground storage tanks (USTs and LUSTs) to EPA’s responsibilities.

### *RCRA Corrective Actions*

EPA has approved 33 state-run RCRA programs which it deems to be equivalent to or better than the federal program, and has delegated corrective action responsibilities to them. In New England, states delegated with corrective action responsibility are: Maine, New Hampshire, and Vermont. Connecticut’s, Massachusetts’, and Rhode Island’s programs have not been authorized by EPA, and thus EPA continues to work cooperatively with these states in administering the RCRA corrective action program. In Connecticut, the state and EPA have identified a list of approximately 115 RCRA facilities in need of corrective action, based on determinations of high risk. The state program, with some EPA involvement, solicits voluntary cleanup activities by facilities in Connecticut. In Rhode Island, EPA and the state work more closely in administering a RCRA corrective action program, although EPA maintains primary responsibility and authority.

In the three states with delegated programs, cleanup activities are recorded by the state program offices and reported in hard copy to the regional EPA office biannually (approximately six month intervals). For Vermont and Maine, EPA enters this information into the Resource Conservation and Recovery Information System (RCRIS), a national electronic database. Data is recorded by facility, and includes relevant information on each facility, including descriptions of steps that may comprise a corrective action process (e.g., “interim measures undertaken”, “interim measures completed”, “human exposure controlled”). The activities are entered using codes that correspond with definitions established by EPA under RCRA. In New Hampshire, data is maintained in a state contaminated sites database, but is not entered into RCRIS. In Connecticut and Rhode Island, where RCRA corrective action programs are not authorized, it is unclear what data is reported to RCRIS. It is likely that this data, whether in state databases or in RCRIS, is incomplete or inconsistent with data from the four authorized states.

EPA requests RCRA corrective action information from states with delegated programs using standardized forms. EPA has provided guidance to the states on responding to the information requests using these forms, and in using the RCRIS activity codes. *However*, each of the three states with delegated programs has created its own definition of corrective action and systems for tracking corrective action activities. Therefore, in reporting to EPA, the states match their distinct activity descriptions to RCRIS codes, creating potentially significant inconsistencies in

<sup>7</sup> Abandoned or historical contaminated sites are regulated and managed under the “Superfund” provisions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

what the codes ultimately appearing in RCRIS actually represent in a given state or at a given site. Further concern is raised by the fact that the RCRIS codes describe various aspects of “corrective action” from administrative and enforcement activities to risk-based activities (e.g., exposure controlled, groundwater contamination controlled). Identifying the number of “corrective actions completed” as the indicator requests may entail the consistent selection of multiple RCRIS codes.

While these definitional issues may indeed have a significant effect on the consistent representation of information by the indicator across the region, data (for at least the four authorized states) does exist in a centralized and standardized database, which EPA has updated with state data biannually for the last five years. This information can be extracted from the database and is available on the World Wide Web. Each of the delegated states also maintains this data in their own electronic database.

### ***LUST CLEANUPS***

EPA intended its LUST program, coordinated under RCRA, to be flexible, and to allow states to administer cleanup programs that meet their own needs, and goals. Each state in New England administers LUST cleanups as required by EPA, and funded by a common trust fund, the LUST Trust. Each coordinates its programs in a different fashion with different priorities, and defines which activities or conditions constitute a “cleanup”.

This variability is reconciled, at least in part for purposes of this indicator, in a standardized reporting form required of states to be submitted to EPA. Similar to RCRA data, EPA requests hard copy forms to be submitted by states biannually on their LUST program progress. These forms include requests for: total number of confirmed releases (from L/USTs), total number of cleanups initiated, and the total number of cleanups completed. Again, while EPA has allowed flexibility in the state programs, definitions, and cleanup goals (acceptable levels of cleanup), there is an expectation that cleanups achieve some level of protection of human health and the environment. A consistency concern not addressed by this standard reporting is that of a state-level reporting threshold. In Rhode Island, for example, *all* identified LUSTs with cleanup activities are recorded. In other states, thresholds may limit the universe of LUSTs and their activities that are reported. For example, the Connecticut database is said to include the most “dramatic” sites (i.e. highest contamination), while Massachusetts and New Hampshire both observe formal reporting thresholds (in New Hampshire, spills of more than 25 gallons or requiring more than 24 hours to address are reported).

States report information on the progress of their LUST programs to EPA in hard copy on the forms mentioned above, biannually. EPA has collected this information since c.1986, but consistently using standard forms since 1993.

**SCREENING RESULTS: Summary Matrix**

(see results of individual interviews in next section for more detail)

*RCRA Corrective Actions*

State/Entity	Database	Parameters	Coverage	Quality/ Methodology	Availability
<b>EPA - NE</b>	RCRIS national RCRA corrective action database, updated biannually with information submitted by state authorized programs (ME, MA, NH, VT)	activities/events related to corrective actions are coded and recorded by facility and date, along with other site-specific information	all RCRA facilities with corrective actions undertaken are included, except data may be incomplete in CT and Rhode Island which do not have state authorized programs	consistent forms have been used to report information biannually for the past five years	electronic database, World Wide Web
<b>Connecticut</b>	CT is not authorized for RCRA corrective action program, but some data may be reported to RCRIS	reported in RCRIS format; Connecticut sources/definitions unknown	unknown	unknown	some data in RCRIS
<b>Maine</b>	RCRA information database	tracks corrective action activities as defined by state statute, using corresponding codes	all RCRA sites undertaking corrective action as defined by state statute	consistent quarterly/biannual reporting for the last five years; final site assessments are done by staff and outside contractors	electronic database and hard copy; reported to RCRIS
<b>Massachusetts</b>	submits hard copy data to EPA, and relies on RCRIS database	tracks corrective action activities as defined by state	all RCRA sites undertaking corrective action as defined by state	consistent biannual reporting for last five years	hard copy files submitted to RCRIS
<b>New Hampshire</b>	RCRA and LUST information is contained in a contaminated sites database	tracks corrective action activities, organized by risk, volume of waste, and priority	all RCRA sites with release or spill greater than 25 gallons, or requiring longer than 24 hours to clean up	consistent biannual reporting for last 5+ years	contaminated site database, and World Wide Web
<b>Rhode Island</b>	RI is not authorized for RCRA corrective action program, but some data may be reported to RCRIS	reported in RCRIS format; Rhode Island sources/definitions unknown	unknown	unknown	some data in RCRIS
<b>Vermont</b>	RCRA information database	tracks site cleanup activities as defined by state	all RCRA sites with cleanup activities	consistent biannual reporting since 1990	electronic database and RCRIS

*LUST Cleanups*

State/Entity	Database	Parameters	Coverage	Quality/ Methodology	Availability
<b>EPA - NE</b>	EPA receives biannual hard copy reports from state LUST programs and produces an aggregate report	EPA issues guidance for reporting, and uses standard forms which request: total number of confirmed releases, total number of LUST cleanups initiated, and total number of LUST cleanups completed; each state defines its own cleanup goals (i.e., acceptable)	all states report biannually	standardized, hard copy forms since c.1986	hard copy reports, biannually
<b>Connecticut</b>	CT maintains a database of LUST sites and activities	site specific information, chemicals involved, and actions taken (e.g., cleanup activities)	high priority/worst sites are tracked	reporting methods have changed over time, and assessments often rely on "best professional judgement"	hard copy reports, biannually
<b>Maine</b>	ME maintains a database of cleanup information	uncertain	uncertain	consistent biannual reporting for last five years	electronic and hard copy reporting biannually
<b>Massachusetts</b>	MA maintains a continuous database of cleanup "responses"	site specific information and sites assessed as cleaned up to: a certain quantified level, to background levels, or to a level of no significant risk	LUST sites at or above reporting threshold	licensed professionals make site assessments of cleanup efforts	electronic (continuous) and hard copy reporting biannually
<b>New Hampshire</b>	NH maintains a contaminated site database, including LUSTs	tracks cleanup activities, organized by risk, volume of waste, and priority	all LUST sites with release or spill greater than 25 gallons, or requiring longer than 24 hours to clean up	consistent reporting for the last five+ years	electronic, World Wide Web, and hard copy reporting biannually
<b>Rhode Island</b>	RI maintains a database of cleanup activities	site specific information and cleanup activity descriptions	LUST sites statewide	consistent reporting for last five years	electronic and hard copy reporting biannually
<b>Vermont</b>	VT maintains a database of hazardous waste sites	LUST information and cleanup status, as defined by state	LUST sites statewide	consistent biannual reporting on standard form used by site managers and staff, since 1987	electronic and hard copy reporting biannually

## SCREENING RESULTS: Interview Results

### WASTE: INDICATOR 10 EPA-NEW ENGLAND

#### Database

##### RCRA

##### Corrective

##### Actions

Information on corrective actions is a part of the Resource Conservation and Recovery Information System (RCRIS), a process and/or event-oriented database maintained nationally by EPA.

##### LUST

##### Cleanups

States provide hard copy reports to EPA-New England.

#### Parameters

##### RCRA

##### Corrective

##### Actions

“Corrective actions” are defined statutorily and can include a number of different administrative or risk-based activities that have corresponding RCRIS codes: interim measures undertaken (CA600); interim measures completed (CA650); human exposure controlled (CA 725); no uncontrolled releases to groundwater (CA750). The concept of actions “completed” is not accurately captured by RCRIS with the closest activity statement being “corrective action process is terminated” (CA999).

##### LUST

##### Cleanups

There is EPA LUST program guidance defining cleanups, but every state can have a different cleanup goal. Information requested of states, by EPA, includes total number of confirmed releases; total number of LUST cleanups initiated; total number of LUST cleanups completed.

#### Coverage

##### RCRA

##### Corrective

##### Actions

The authorized RCRA programs (Maine, Massachusetts, New Hampshire and Vermont) report all corrective actions (activities) at RCRA facilities to RCRIS. State and regional numbers can be generated.

##### LUST

##### Cleanups

States report hard copy forms which can be aggregated at EPA Headquarters, for all LUST cleanup activities.

**Quality/Methodology***RCRA**Corrective**Actions*

For the last five years, EPA-New England has requested biannual information on corrective actions from the authorized programs in the state agencies using a consistent form. The hard copy forms are entered by the Region and the data is sent to Headquarters. A diskette of state information is provided to the agency by EPA one month later.

*LUST**Cleanups*

Since 1986, EPA-New England has requested hard copy forms.

**Availability***RCRA**Corrective**Actions*

RCRIS data is available electronically and on-line as part of the EPA Envirofacts Website. States submit data biannually.

*LUST**Cleanups*

The data is available as hard copy for each state or aggregated in the biannually report. States submit data biannually.

**WASTE: INDICATOR 10**  
CONNECTICUT

**Database***RCRA**Corrective**Actions*

As a voluntary corrective action program, Connecticut DEP maintains a 10-20 participant data set.

*LUST**Cleanups*

Connecticut DEP maintains a LUST inventory list of about 30 sites using the EPA-provided UST database platform.

**Parameters***RCRA**Corrective**Actions*

Participant status and action steps are included.

*LUST**Cleanups*

Fields in the database include site name, location, source of releases, chemical compounds involved, and actions taken. Criteria for LUST cleanup is defined by rule with cleanup standards becoming more stringent in 1994.

**Coverage***RCRA**Corrective**Actions*

Candidates for voluntary corrective action are identified in cooperation with EPA-New England from high scoring sites (about 115 in Connecticut) in the National Corrective Action Program data base. The voluntary corrective action program has been operating since 1995.

*LUST**Cleanups*

The LUST inventory list covers sites defined as the most “dramatic”.

**Quality/Methodology***RCRA**Corrective**Actions*

Uncertain.

*LUST**Cleanups*

Reporting methods have changed over time for the LUST list. Professional judgement is used and may affect comparability. Hard copy reports are sent to EPA-New England biannually (twice).

**Availability**

*RCRA*

*Corrective*

*Actions*

The data is in electronic form backed by hard copy files.

*LUST*

*Cleanups*

The data is in electronic form entered from hard copy.

**WASTE: INDICATOR 10**  
MAINE

**Database***RCRA Corrective**Actions**and**LUST*

*Cleanups* Corrective action and cleanup information is maintained in continuous databases by Maine DEP.

**Parameters***RCRA**Corrective*

*Actions* Maine statute defines corrective action.

*LUST*

*Cleanups* Uncertain.

**Coverage***RCRA**Corrective*

*Actions* All sites meeting the corrective action definition.

*LUST*

*Cleanups* Uncertain.

**Quality/Methodology***RCRA Corrective**Actions**and**LUST*

*Cleanups* About 10 years of data with the last five years reported consistently on a semi-annual (twice) basis to EPA-New England and internally on a quarterly basis. Program staff and outside contractors undertake assessments of the final site status. These assessments are reviewed internally prior to data entry.

**Availability**

*RCRA Corrective*

*Actions*

*and*

*LUST*

*Cleanups*

The data is in electronic form backed by hard copy files.

**WASTE: INDICATOR 10**  
MASSACHUSETTS

**Database***RCRA**Corrective**Actions*

Massachusetts DEP has no database like RCRIS with specific site tracking information and consequently relies on RCRIS.

*LUST**Cleanups*

A continuous database of “response action outcomes” (RAOs) is maintained on proprietary software on an Oracle platform with overnight updates.

**Parameters***RCRA Corrective**Actions**and**LUST**Cleanups*

Corrective actions (e.g., soil removal, groundwater mitigated, site stabilization) and LUST cleanups are defined in Massachusetts Contingency Plan (310CMR40). For LUST cleanups are undertaken in three ways: 1) cleaned up to a certain numerical value; 2) cleaned up to background levels; 3) cleaned up to a determination of no significant risk.

**Coverage***RCRA**Corrective**Actions*

All facilities undertaking corrective action (n<24).

*LUST**Cleanups*

Statewide sites triggering a notification threshold.

**Quality/Methodology***RCRA**Corrective**Actions*

Corrective action information for the last five years has been reported consistently on a semi-annual (twice) basis to EPA-New England.

*LUST**Cleanups*

Since October 1993, reporting cleanups has been undertaken consistently using licensed site professionals to make determinations. Data are reported consistently

on a semi-annual (twice) basis to EPA-New England and internally on a annual and fiscal (budgetary) basis.

**Availability**

*RCRA*

*Corrective*

*Actions*

The data is available from RCRIS backed by hard copy files.

*LUST*

*Cleanups*

The data is available electronically and, on a limited basis, on-line.

## WASTE: INDICATOR 10

### NEW HAMPSHIRE

#### Database

*RCRA Corrective*

*Actions*

*and*

*LUST*

*Cleanups* Both corrective actions and underground storage tank cleanups are included in a contaminated sites database mounted on an Oracle platform.

#### Parameters

*RCRA Corrective*

*Actions*

*and*

*LUST*

*Cleanups* The type and active remediation of sites is organized by risk, volume of waste, and workload priority.

#### Coverage

*RCRA Corrective*

*Actions*

*and*

*LUST*

*Cleanups* All contaminated sites with a release or spill over 25 gallons or that take longer than 24 hours to address are reported into the database.

#### Quality/Methodology

*RCRA Corrective*

*Actions*

*and*

*LUST*

*Cleanups* Since the early 1990s, the contaminated sites information has been collected consistently. Corrective action information for the last five years has been reported consistently on a semi-annual (twice) basis to EPA-New England.

#### Availability

*RCRA Corrective*

*Actions*

*and*

*LUST*

*Cleanups*      The contaminated sites database is electronic, on-line and supported by hard copy files.

**WASTE: INDICATOR 10**  
RHODE ISLAND

**Database***RCRA**Corrective  
Action*

Rhode Island DEM is not authorized by EPA as a RCRA corrective action program, but maintains a 12 site list stemming from a jointly coordinated program.

*LUST**Cleanups*

LUST site data is maintained using UST database system (Access).

**Parameters***RCRA**Corrective  
Action*

Uncertain.

*LUST**Cleanups*

LUST data is categorized by types of activities taking place: soil removal only; sites remediated or where extraction takes place; and monitoring.

**Coverage***RCRA**Corrective  
Action*

Uncertain.

*LUST**Cleanups*

Statewide data.

**Quality/Methodology***RCRA**Corrective  
Action*

Uncertain.

*LUST**Cleanups*

LUST cleanup data has been collected since the late 1980s, but with high quality and more consistently in the last five years. Data are reported consistently on a semi-annual (twice) basis to EPA-New England and internally on a annual (calendar) and state and federal fiscal (budgetary) bases.

**Availability**

*RCRA*

*Corrective*

*Action*      Hard copy.

*LUST*

*Cleanups*      The data is available in electronic form supported by hard copy files.

**WASTE: INDICATOR 10**  
VERMONT

**Database***RCRA**Corrective  
Action*

Vermont ANR maintains a data set of 7-8 facilities structured similarly to RCRIS.

*LUST**Cleanups*

LUST cleanup data is part of a hazardous waste site database maintained on Access software converted from Paradox.

**Parameters***RCRA**Corrective  
Action*

Vermont tracks corrective action (activities) at sites, using a variety of codes and definitions.

*LUST**Cleanups*

LUST cleanup is defined in state rule and statute, based on releases, with closure criteria found in guidance.

**Coverage***RCRA**Corrective  
Action*

Various activities tracked at LUST sites. Activity descriptions cannot necessarily be used to represent “corrective action completed”.

*LUST**Cleanups*

Since 1987, statewide data in comparable form has been collected using a standard form used by site managers and data entry personnel.

**Quality/Methodology***RCRA**Corrective  
Action*

Since 1990, corrective action data has been reported consistently to RCRIS through EPA-New England semi-annually.

*LUST**Cleanups*

Data are reported consistently on a semi-annual (twice) basis to EPA-New England and as a quarterly mailing to the public.

**Availability**

*RCRA*

*Corrective*

*Action*           The data is available from RCRIS.

*LUST*

*Cleanups*        The data is available electronically and on-line updated quarterly.

**WASTE  
INDICATOR 11**

*“Amount of solid waste landfilled, incinerated, and recycled.”*

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ME DEP	David Maxwell, George MacDonald
MA DEP	Brian Holdridge
NH DES	Sharon Yergeau
RI DEM	Terry Gray, Michael McGonagle (RI Resource Recovery Corp.)
VT ANR, DEC	Julie Hackbarth

## SCREENING RESULTS: Overview

EPA does not maintain a database of state-level solid waste information. Information is available in each of the New England states on the quantities of solid waste landfilled, incinerated, and recycled. Most have data available annually (with the exception of Massachusetts recycling data, which is collected by occasional surveys). Most data is maintained by the respective state environmental agency (with the exception of recycling data in Maine which is maintained by the State Planning Office, and all solid waste in Rhode Island which is tracked by the Rhode Island Resource Recovery corporation). Drawing on this variety of state-level sources, data to support this indicator could be produced in each state for each category – landfilled, incinerated, recycled – annually (recycling data in Massachusetts will not necessarily be current). However, questions regarding the consistency, reliability, and representativeness of these data are significant. Some key concerns relate to: the sources of solid waste data (e.g., disposal facilities or haulers), its comprehensiveness (e.g., are certain wastes not included, such as commercial debris), and waste that is shipped in or out of state. Most states collect information from a variety of disposal facilities, haulers, and/or municipalities. The difference between data from disposal facilities and data from haulers may have an impact on whether an indicator represents data *generated by* a state, or *disposed of in* a state. Most states track all wastes, while large debris and commercial waste often do not get counted. Each state's data faces complications or double counting from waste that is shipped in or out of state (i.e., waste attributed to one state may not have been produced there, or *vice versa*).

Connecticut collects data from municipalities, haulers, and disposal facilities, although there is concern regarding the accuracy of reporting by haulers. All solid waste is tracked, except for large debris such as demolition waste and scrap metal collected by dealers. Maine collects landfill and incineration data from disposal facilities. Haulers are not required to report. The State Planning Office collects recycling data from municipalities (rate of return on information request is approximately 90%). Massachusetts collects landfill and incineration data from facilities. Recycling data is estimated based on occasional surveys of transfer stations and other points of sorting. New Hampshire collects data from municipalities and disposal facilities, representing approximately 95% coverage. Rhode Island Resource Recovery operates the state's primary landfill and materials recovery facility (which processes approximately 98% of the state's municipal residential recycling). The vast majority of the state's residential solid waste and recycled material is tracked by the facility by weight. However, several commercial waste transfer stations recycle commercial waste and transport some out of state. Thus RI Resource Recovery's data is considered to reliably represent the state's residential waste and recycling, but is limited for commercial waste. No incineration is conducted in Rhode Island. Vermont collects waste data from permitted facilities and haulers.

It is important to note that other potential sources of waste data exist. While the data screening efforts were focused on state data sources, some other sources were identified in conversations with state and regional contacts. GMI assessed two of these cursorily as potential sources of data to support this indicator. The sources are a waste issue magazine called "*BioCycle*", and the other an organization established by the Eastern Regional Conference of the Council of State Governments to research and assist recycling viability in the northeast, called the Northeast

Recycling Council (NERC). Each of these entities compiles annual, state-specific waste data. *BioCycle* publishes this information annually, for each state and the District of Columbia, annually. NERC compiles data which is available via the World Wide Web for the northeast states, including all New England states. Both sources rely on contacts with state agencies, waste facilities, and haulers in developing their annual figures. Potential inaccuracies and inconsistencies in state data reporting are not eliminated, but the application of consistent methodologies by both *BioCycle* and NERC in compiling these data, has the potential to improve the consistency and comparability of numbers generated. Both sources generate quantities of solid waste landfilled, incinerated, and recycled, by state.

**SCREENING RESULTS: Summary Matrix**

(see results of individual interviews in next section for more detail)

<b>State/Entity</b>	<b>Database</b>	<b>Coverage</b>	<b>Quality/ Methodology</b>	<b>Availability</b>
EPA - NE	annual national survey; refer to other sources such as Biocycle magazine	United States, cannot be disaggregated	unknown	annual national report, 1996 most current
Connecticut	CT DEP maintains solid waste database	solid waste except large debris, and scrap metal handled by dealers	data collected annually in standard form from municipalities, who collect data from facilities and haulers; consistent from 1992 on	electronic database and internal management reports
Maine	ME DEP maintains a database of landfilled and incinerated waste; ME SPO maintains recycling information	landfilled and incinerated waste and recycled waste in tons; recycled excludes sludge, waste oil, and asphalt	landfill and incineration facilities report data, haulers are not required; recycling data is collected by consultants from commercial and municipal recyclers (90% response); consistent annual data from 1993, most current recycling data from 1995	electronic databases, and summary reports of both solid waste disposal and recycling
Massachusetts	MA DEP maintains a database of landfilled and incinerated waste; an occasional survey is used to estimate recycling rates	landfilled and incinerated waste tracked consistently from 1994-1996, 1997 data is not yet calculated; recycling survey done as base year in 1992, updated in 1996	DEP considers incinerator data to be accurate, landfill data slightly less reliable, and recycling data unreliable	electronic database, annual reports for solid waste disposal; a recycling "report card" for municipalities has been developed
New Hampshire	NH DES maintains a database of solid waste landfilled, incinerated, and recycled	municipal and commercial solid waste	data is collected from municipalities and disposal facilities; DES expects some data (~5%) to be uncounted	electronic database and reports
Rhode Island	RI DEM does not track solid waste data; the RI Resource Recovery Corp. operates the state's main solid waste facility	solid waste landfilled and recycled (no incineration in RI)	solid waste from all municipalities is weighed at facility and recorded; no out of state waste is brought into RI; point of disposal/separation weighing at same facility since 1991	RI Resource Recovery maintains a database of waste landfilled and recycled
Vermont	VT ANR maintains a database of solid waste landfilled, incinerated, and recycled	solid waste from permitted facilities statewide and haulers (for waste taken out of state)	incomplete data collected for 1994-96, more complete for 1997-98; quality of data reported by facilities varies	electronic database

## SCREENING RESULTS: Interview Results

### WASTE: INDICATOR 11 EPA-NEW ENGLAND

- Database** EPA-New England and EPA Headquarters do not collect solid waste data from state environmental management agencies or maintain solid waste databases. EPA-New England cited the annual *BioCycle* magazine survey of solid waste conditions and trends as a possible source of data to support the indicator. EPA Headquarters uses a consultant to produce an annual number for waste generation per capita nationally.
- Coverage** The *BioCycle* survey is conducted annually since 1989 and includes the 50 states and the District of Columbia.
- The EPA Headquarters survey is undertaken annually and cannot be disaggregated to the state level.
- Quality/  
Methodology** For the *BioCycle* survey, figures for a particular year are derived from estimates of prior years because of timing of the survey (printed in April and May) and frequency of state data compilation. There is also no set of criteria used for deciding which materials are included in municipal solid waste meaning some states may be counting different materials than others.
- The EPA Headquarters survey uses production and economic models to isolate municipal solid waste from industrial waste and recycling data.
- Availability** *BioCycle* reprints of “The State of Garbage in America” articles are available for a fee.
- EPA produces national reports characterizing solid waste that are running two years behind.

**WASTE: INDICATOR 11**  
CONNECTICUT

- Database** Connecticut DEP collects and maintains a database containing information on solid waste landfilled, incinerated, and recycled.
- Coverage** Connecticut has been collecting data (tons) on an annual basis since 1990, but the data set is more reliable and consistent since 1992 after passage of the Mandatory Recycling Act in 1991 established a reporting requirement. The municipal solid waste data (excluding bulky waste defined as land clearing or demolition debris) can be aggregated to the statewide level drawn from municipalities, facilities (except scrap metal dealers), and waste haulers (concern expressed that they are not reporting accurately or at all).
- Quality/  
Methodology** Using definitions consistent with EPA, reporting forms organized by type of material with definitions and conversion information are sent to municipalities annually. Municipalities report information on commercial solid waste entities within the towns. Facilities are required to report quarterly. Difficulties in compiling the data include out of state waste and Connecticut waste that goes out of state and comes back in.
- Availability** In addition to electronic availability, annual reports are generated and sent to municipalities used internally for planning purposes.

## WASTE: INDICATOR 11

### MAINE

- Databases** Maine DEP collects and maintains landfilling and incineration data.
- Maine State Planning Office collects and maintains recycling data.
- Coverage** Maine DEP has collected landfilling and incineration data (tons) by type of waste on an annual basis consistently since 1993 from disposal facilities. Licensed waste haulers are not required to report.
- Maine SPO has collected self-reported recycling data (excluding sludge, waste oil, and asphalt) from municipalities (90% return rate) since 1993 and sponsors a biennial consultant-based survey of commercial sector recyclers. 1993 and 1995 are the last completed recycling reports and contain an aggregated state recycling number in tons (raw survey data is destroyed as proprietary).
- Quality/**
- Methodology** Landfilling and incineration facilities are required to report annually. Municipalities are asked to self-report recycling information annually.
- Availability** In addition to electronic data, landfilling and incineration data are available in summary reports for an active solid waste stakeholders group and for legislative requests. Recycling reports are summarized for the legislature and used for planning purposes.

## WASTE: INDICATOR 11 MASSACHUSETTS

- Database** Massachusetts DEP collects and maintains statewide data (tons) on landfilling and incineration.
- For recycling data, Massachusetts has periodically surveyed municipalities, but does not maintain a database.
- Coverage** Landfilling and incineration data have been collected consistently since 1990 and are most consistent for the period calendar 1994-96 with 1997 pending. A standardized chart comparing total generation and total disposed; MSW and non-MSW (e.g., biosolids and sludge) are generated. Recycling surveys are based on a 1992 comprehensive survey and have not been updated since calendar year 1996. Incinerator data is characterized as accurate; landfills data as less reliable; and recycling as still less reliable.
- Quality/  
Methodology** Self-reports from landfilling and incineration facilities are requested every February, but are not complete before April (Massachusetts waits for some numbers from some of its waste that goes to New Hampshire for disposal). Some estimation is undertaken using a productivity index and employment data. Recycling surveys involve staff and contractors to survey transfer stations or other points where the recyclables are first consolidated.
- Availability** In addition to electronic data, annual reports are generated for master planning and projection of future disposal capacity. A recycling report card ranking the municipalities rate of recycling has been developed.

**WASTE: INDICATOR 11**  
NEW HAMPSHIRE

**Database** New Hampshire DES collects and maintains a database covering information on solid waste landfilled, incinerated, and recycled.

**Coverage** New Hampshire has been collecting data on an annual basis since 1991 based on municipal and facility reports for 95% of the state.

**Quality/**

**Methodology** Annual calendar year reporting from municipalities is due by the end of March every year. Towns own transfer facilities. Annual reports from point of disposal facilities are also requested. Data from weighing scales is amended with estimated conversion data from dump truck loads and cubic yards measurements. The data is characterized as good for municipal solid waste with commercial solid waste data being not as reliable. Data entry is by facility and service area. The 5% missing data is due to short staff. Some out of state waste figures can be broken out due to a \$1 per ton surcharge on out of state waste.

**Availability** In addition to electronic data, a legislatively mandated report is generated to support a six-year solid waste plan.

**WASTE: INDICATOR 11**  
RHODE ISLAND

- Database** Rhode Island DEM maintains data on a small amount of solid waste from three small municipal landfills. The vast majority of waste is tracked by Rhode Island Resource Recovery, a quasi-public state-owned corporation that operates the state's central landfill and materials recovery (recycling) facility. There is no incineration facility in Rhode Island.
- Coverage** Since 1991, Rhode Island Resource Recovery has collected weighing scale data on waste to be landfilled. It is assumed that all waste is in-state as there is a ban on out-of-state waste disposal in Rhode Island. Recycling data has also been collected by type using the scales since 1991 at the facility that nearly all municipalities in the state use for municipal/residential waste.
- Quality/  
Methodology** Rhode Island Resource Recovery scales are electronically connected to an accounting system. The data represents approximately 90-95% of all solid waste disposed, and 98% of waste recycled, in the state. A significant amount of commercial waste is processed or transported by transfer stations, so RIRRC's data is representative of the state's residential waste and recycling, but not commercial waste.
- Availability** On request, Rhode Island Resource Recovery can generate reports from their data.

**WASTE: INDICATOR 11**  
VERMONT

- Database** Vermont ANR collects and maintains a database containing information on solid waste landfilled, incinerated, and recycled (tons or cubic yards). This information is obtained from facilities permitted by the agency and entities required to report to the tax department.
- Coverage** The data covers facilities permitted by ANR, facilities required to pay taxes, and waste haulers (if direct hauled out of state). Partial sets of data are available for calendar years 1994-96 and more complete data is available for 1997-98.
- Quality/  
Methodology** Facilities are required to report quarterly and the quality varies by facility and method of measurement. In previous years reporting was either by tonnage or by volume, but is now required to be by tonnage. Potential problems may include double counting (waste transferred from a transfer station or recycling center to another with both required to report).
- Availability** In addition to electronic data, a 1997 summary report is available.

**WASTE**  
**INDICATOR 12**

*“Percent of non-product outputs reduced, including TRI waste; percent of non-product outputs reduced, including TRI waste, normalized for production; percent of non-product outputs, including TRI waste, attributable to pollution prevention; percent of non-product outputs reduced, including TRI waste, attributable to pollution prevention, normalized for production; percent of facilities that have implemented pollution prevention practices as a result of technical assistance.”*

**CONTACTS**

EPA – New England	Dwight Peavey
CT DEP	Joe Pulaski
ME DEP	Ron Dyer, Barbara Herman
MA DEP	Cynthia Chavez
NH DES	Karen Way, Vince Perelli, Sharon Yergeau
RI DEM	Barbara Morin
VT ANR, DEC	Paul Van Hollebeke

## Screening Results: OVERVIEW

This indicator includes several distinct elements:

1. percent of non-product outputs reduced, including TRI waste
2. percent of non-product outputs reduced, including TRI waste, normalized for production
3. percent of non-product outputs, including TRI waste, attributable to pollution prevention
4. percent of non-product outputs reduced, including TRI waste, attributable to pollution prevention, normalized for production
5. percent of facilities that have implemented pollution prevention practices as a result of technical assistance

In slightly more general terms, the data requirements of this indicator are: the amount of waste produced (reduced), amount of waste that can be attributed to pollution prevention (P2), some factor by which these first two numbers can be normalized for production, and the percent of facilities that have done P2 because of technical assistance they received. The primary data source implicated is the Toxic Release Inventory (TRI). The TRI (as discussed in the *Air Section: Indicator 4*) is a national database of toxics release and transfer data from a group of manufacturing facilities required (by SIC code and toxics use thresholds defined in the Emergency Planning and Community Right to Know Act (EPCRA)) to report to EPA on standardized forms annually.

EPA compiles this information annually (1996 is the most currently released data). The TRI tabulates the amount of waste (of listed chemicals/compounds) released to various media, transferred off-site (for treatment or disposal), and managed on-site. This data supports the first part of the indicator. EPA also requests production ratios from facilities on their TRI forms. This number, by using an established formula, enables the waste figures to be “normalized” for production, thus supporting the second part of the indicator. The TRI forms, in accordance with the Pollution Prevention Act of 1990, also include two data fields requesting codes that correspond to source reduction activities and methods implemented at facilities.

The TRI data can support the first two elements in this indicator. The third element – waste reductions attributable to pollution prevention – can potentially be derived using TRI data, but there is not an established and reliable method for such a calculation. The TRI does include codes under “source reduction methods” which correspond to pollution prevention and technical assistance (one code each for: federal, state, trade association, vendor, and other). Forms reporting these codes could be counted (multiple counts for facilities submitting multiple forms would have to be reconciled) and a total divided by the total facilities reporting. This information could support the fifth element in this indicator. However, the reporting of these codes and their reliability are seriously questioned by both EPA and state agencies.

EPA, agencies, and industry, among others, have raised many concerns regarding the reliability of the TRI. These cannot be described in detail here, however some general concerns include:

- The group of facilities reporting to the TRI has been criticized as being a relatively narrow class of industrial facilities comprised of manufacturers
- The reliability of the estimation of waste quantities and reporting has been challenged

- The consistency and utility of information reported on pollution prevention activities has been challenged
- The normalization of waste data for production has been criticized for a) its distortion of actual emissions quantities, and b) the reliability of production ratios submitted by facilities

Some state-level sources of waste information that might help support this indicator were described during the data screening interviews. Maine maintains a database under a Toxic Use Reduction law. This database includes TRI facilities and some large quantity hazardous waste generators that are not required to report to the TRI. The database tracks the same chemicals as the TRI. The Maine database could be used to calculate waste reductions annually, and does include a normalization factor. While the database tracks pollution prevention activities, waste reductions cannot necessarily be attributed to them. Massachusetts maintains a similar database, but includes numerous facilities not included in the TRI, and tracks a list of chemicals which includes both TRI and CERCLA listed chemicals. Facilities in Massachusetts also report a production ratio, and pollution prevention activities. Outside of the TRI, New Hampshire maintains a database of annual reports from RCRA facilities. These reports include the amount of waste generated, information allowing for normalization, and the type of, and reason for, pollution prevention activities. NH DES contacts suggest that this information could be used to calculate waste reductions attributable to pollution prevention activities. Facilities implementing pollution prevention, listing technical assistance as a primary source of information for pollution prevention, could be calculated as a percentage of total facilities. Rhode Island maintains a toxics inventory limited to a small group of air toxics emitters. Vermont requires TRI-covered facilities (though at a lower qualifying threshold) to produce pollution prevention plans, and to submit annual progress reports to the state. These reports are intended to include progress in waste reduction. The state produces a summery report describing the progress of its pollution prevention program, which includes waste reductions, but this is not maintained in a database. Connecticut does not maintain a state-level toxics/waste inventory.

In summary, the TRI contains data, although incomplete and of questionable reliability, for facilities in each state. This data may be used to characterize the amount of waste produced/reduced annually, this number normalized for production, and possibly the number of facilities implementing pollution prevention as a result of technical assistance. Some states maintain data on facilities or wastes beyond the TRI. A few states are able to quantify pollution prevention activities. The ability to attribute waste reductions to pollution prevention proves difficult for facilities, as well as for those relying on these data sets.

Screening Results: SUMMARY MATRIX

(see results of individual interviews in next section for more detail)

State/Entity	Database	Coverage				Quality/ Methodology	Availability
		Facilities	Wastes	Parameters	Temporal		
<b>EPA - NE</b>	TRI	all facilities listed in EPCRA section 313: SIC 20-39, have >10 employees, either manufacture, process, or import >25,000 lbs of any listed chemical, or otherwise use >10,000lbs of any listed chemical	approximately 650 reported chemicals are listed by EPA	releases, transfers, etc. of waste , production ratio, pollution prevention activities and sources	1988-1996 annual reporting; changes in chemicals and facilities over time	facilities self report emissions to EPA; EPA does QA; many concerns have been expressed about the scope of facilities and chemicals reported, as well as with reporting/estimation methods	the TRI is widely available annually: CD-ROM, internet, electronic, published reports annually
<b>Connecticut</b>	no state toxics database						
<b>Maine</b>	state toxics inventory	all TRI facilities and large hazardous waste generators	all TRI wastes	waste quantities, production factors (for normalization), pollution prevention activities	biennial reporting to ME DEP	self-reporting by facilities	electronic database, and annual reports in hard copy and World Wide Web
<b>Massachusetts</b>	state toxics inventory	all TRI-reporting facilities and other not reporting to TRI	TRI and CERCLA listed chemicals in all process uses at facilities	waste reductions, production ratio, pollution prevention activities	annual reporting, 1996 recent	facilities report data along with methods for estimations; DEP uses inspectors to verify accuracy during some site visits	electronic database, and annual reports in hard copy and World Wide Web
<b>New Hampshire</b>	database of annual reports from RCRA facilities	all RCRA generators	all RCRA hazardous waste	waste generated, normalization information, pollution prevention activities and sources	annual reports; has submitted data for several federal reporting cycles; began using new survey form containing detailed pollution prevention information in 1997	DES considers data accurate and reliable	electronic database
<b>Rhode Island</b>	Rhode Island maintains a limited inventory of air toxics emitters; no state-level toxics inventory is maintained						
<b>Vermont</b>	VT requires TRI facilities to prepare pollution prevention plans; annual reports on these plans are submitted to VT ANR; VT ANR produces biennial progress reports	all TRI facilities, but at lower reporting threshold	all relevant wastes	facilities are expected to describe pollution prevention activities and progress; VT ANR reports on waste reductions in describing the progress of the pollution prevention program	progress reports are submitted to ANR annually; ANR produces a report biennially (1997 recent)	VT ANR is not confident of the reliability of the trends described in facility progress reports	facility P2 plans are kept on site or submitted to ANR voluntarily; progress reports are prepared annually

## SCREENING RESULTS: Interview Results

### WASTE: INDICATOR 12

EPA – NEW ENGLAND

**Database** Nationally, EPA maintains the toxics release inventory (TRI), an inventory of toxic emissions, releases, and transfers from facilities, by media, along with other information on manufacturing processes and pollution prevention measures.

**Coverage**  
*Facilities* Sources are described in Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA). Reporting facilities are those which conduct manufacturing operations (SIC 20-39), have 10 or more full-time employees (10 FTE), and use a listed chemical(s) as follows:  
 Manufacture, process, or import any chemical or group in quantity over 25,000 lbs  
 or,  
 otherwise use any chemical or group in quantity over 10,000 lbs.

*Wastes* Approximately 650 listed chemicals and compounds (EPCRA).

*Parameters* The TRI contains data on facilities' releases, transfers, etc., as well as quantities of wastes managed (recycled, energy recovered) on-site, a production ratio (can be used to normalize waste outputs), and codes corresponding to source reduction (pollution prevention) activities and methods implemented.

*Temporal* TRI data is available from 1988-1996. The TRI is published annually, with a 1-2 year lag time. Listed chemicals and reporting facilities have changed over that time.

**Quality/**  
**Methodology** Facilities self-report estimates of releases, on standardized forms, using extensive EPA guidance and mandated protocols. EPA compiles and performs quality assurance of this data.

Numerous issues have been raised regarding the quality of TRI data. Constant changes in guidance, listed chemicals, and covered facilities have improved the representativeness of the data, but at the expense of consistency over time. The TRI has been criticized for its methods, including: the limited range of facilities required to report (only manufacturing), the methods used for estimating releases, and the accurate identification of facilities and locations. EPA considers (and states concur) that coding information for pollution prevention activities and

methods listed on facility TRI forms is often incomplete and difficult to quantify with any representativeness or relationship to waste outputs.

**Availability** The TRI is widely available in electronic format, on CD-ROM, via the Internet, and in hard copy reports. The 1996 data is available electronically, and will soon be available in hard copy and on CD-ROM.

## WASTE: INDICATOR 12

### CONNECTICUT

**Database** TRI data is reported by facilities to EPA. For description of the TRI database, see EPA-NE form (p.51).

Connecticut does not maintain a state toxics inventory.

#### **Coverage**

*Facilities* N/A  
[See EPA – New England].

*Wastes* N/A  
[See EPA – New England].

*Parameters* N/A  
[SEE EPA – NEW ENGLAND].

*Temporal* N/A  
[See EPA – New England].

#### **Quality/**

**Methodology** N/A  
[See EPA – New England].

**Availability** N/A  
[See EPA – New England].

## WASTE: INDICATOR 12

### MAINE

**Database** TRI data is reported by facilities to EPA. For description of the TRI database, see EPA-NE form (p. 51).

Under a Toxics Use Reduction law, Maine maintains a database of facilities and their wastes generated, as well as details of their required toxics use reduction plans.

### Coverage

*Facilities* All TRI reporting facilities are included in ME DEP database. Additional facilities required to report include all large quantity hazardous waste generators (includes some beyond those in the TRI group).

*Wastes* For facilities reporting to the TRI, the ME DEP database tracks the same waste information reported to the TRI (releases, transfers, etc.). Other generators submit similar information on individual reports.

*Parameters* The database tracks quantities of wastes (non-product outputs) for facilities annually. These figures could be compared to calculate % reductions.

Maine's Toxics Use Reduction law requires facilities to submit reduction plans every two years. Information from these plans is recorded in the database. The plans describe efforts taken to reduce toxics use, such as pollution prevention activities, control equipment, and process changes/chemical substitutions, but waste reductions are not necessarily attributable to these activities.

Facilities also submit production levels in the form of a ratio, as in the TRI.

As part of the Toxics Use Reduction program, all facilities receive some form(s) of technical assistance. These activities are not recorded in the database and pollution prevention activities are not necessarily attributable to them.

*Temporal* Facilities submit toxics reduction plans and other information to the agency every two years (including those facilities that report to the TRI annually).

### Quality/

**Methodology** Standard information on waste products is self-reported by facilities. Waste data reported to the state database from TRI facilities is the same as that reported to the TRI, however, the production ratio reported by a facility to both databases often differs.

**Availability** ME DEP maintains an electronic database and summarizes toxics information in an annual report (hard copy and on the World Wide Web).

## WASTE: INDICATOR 12

### MASSACHUSETTS

**Database** TRI data is reported by facilities to EPA. For description of the TRI database, see EPA-NE form (p. 51).

MA DEP maintains a database including information included on facilities' TIR forms and additional data from facilities, such as that required by the state's Toxics Use reduction law.

#### **Coverage**

*Facilities* All TRI reporting facilities report to MA DEP. Also, numerous other "service" facilities beyond the TRI SIC group report.

The reporting threshold for MA DEP's TUR inventory is the same as that for the TRI, however, if a facility exceed the 25 ton threshold for any chemical, all chemical are subject to the 10 ton threshold.

*Wastes* Facilities report use and release of all TRI chemicals, in addition to all CERCLA chemicals, approximately 1400 in all.

Again, once a facility reports over 25 tons for one pollutant, all are subject to a 10 ton threshold, thus more chemicals per facility may be reported to the state TUR database, than to the TRI alone.

State requires reporting of chemicals in all process uses.

*Parameters* The TUR database reports reductions in by-products (non-product outputs, including releases) from a 1990 baseline for each facility. This number could be calculated as an annual reduction.

Facilities report a production ratio (for normalizing waste quantities) to the TRI and to the MA DEP.

Facilities report pollution prevention activities using codes corresponding to methods, equipment, etc. implemented.

*Temporal* Facilities report to DEP annually. Data is compiled for 1990-1996.

#### **Quality/**

**Methodology** Facilities use and describe standard methods for calculating wastes and emissions. MA DEP has multi-media trained inspectors who provide assurance of accuracy during some site visits.

**Availability** MA DEP maintains an electronic database and summarizes toxics information in an annual report (hard copy and on the World Wide Web).

## WASTE: INDICATOR 12

### NEW HAMPSHIRE

**Database** TRI data is reported by facilities to EPA. For description of the TRI database, see EPA-NE form (p. 51).

New Hampshire maintains databases for its RCRA programs, including a database of annual reports submitted by RCRA generators on their activities.

#### Coverage

*Facilities* All RCRA generators.

*Waste* All hazardous waste under RCRA.

*Parameters* Generators submit annual reports to NH DES. These reports are supposed to include the amount of waste generated, information to allow normalization for production, any pollution prevention activities undertaken (coded for type), and the source of any pollution prevention activities (coded by type: e.g., agency assistance, vendor literature). Waste reductions attributable to pollution prevention are not reported, but rough estimates could potentially be calculated from the database.

*Temporal* NH DES has been responsible for maintaining RCRA information since 1981, and has reported to the biennial reporting system (BRS) and the Resource Conservation and Recovery Information System accordingly. Annual reports from generators have been recorded for several years. In 1997, DES began using a new survey form for reporting of pollution prevention activities, which includes more detailed information on the source of pollution prevention activities (e.g., reason for implementation, source of information).

#### Quality/

**Methodology** NH DES considers their current hazardous waste tracking, and information submission from generators to be detailed and reliable. The forms currently used request an extensive amount of information about facilities' processes, wastes, and activities, and are quality assured by DES. By contrast, TRI data from NH facilities receives little quality assurance before being forwarded to EPA, for entry into the national database. NH DES raised some concerns regarding "double counting" in this indicator if TRI wastes and RCRA wastes are combined – some facilities may be required to report the same wastes to both TRI and to RCRA. An expanding group of facilities required to report under TRI may exacerbate this problem.

**Availability** NH DES maintains databases of annual reports from facilities, as well as standard biennial reports required for their RCRA program. [See EPA – New England for TRI availability].

**WASTE: INDICATOR 12**  
RHODE ISLAND

**Database** TRI data is reported by facilities to EPA. For description of the TRI database, see EPA-NE form (p. 51).

Rhode Island maintains an inventory of facilities emitting air toxics [see Air: Indicator 4, Rhode Island]. No comprehensive inventory of state toxics/wastes exists.

**Coverage**

*Facilities* [See EPA – New England].  
[See Air: Indicator 4, Rhode Island]

*Wastes* [See EPA – New England].  
[See Air: Indicator 4, Rhode Island]

*Parameters* [See EPA – New England].  
[See Air: Indicator 4, Rhode Island]

*Temporal* [See EPA – New England].  
[See Air: Indicator 4, Rhode Island]

**Quality/**

**Methodology** [See EPA – New England].  
[See Air: Indicator 4, Rhode Island]

**Availability** [See EPA – New England].  
[See Air: Indicator 4, Rhode Island]

**WASTE: INDICATOR 12**

## VERMONT

**Database** TRI data is reported by facilities to EPA. For description of the TRI database, see EPA-NE form (p. 51).

Under the state's 1991 Pollution Prevention Planning law, facilities must prepare pollution reduction plans, and submit certain information to VT ANR.

**Coverage**

*Facilities* All TRI reporting facilities (same SIC codes and chemicals) are covered under the law, but by a lower reporting threshold of 1,000 pounds of any listed chemical used. All hazardous waste generators are required to develop pollution reduction plans.

*Wastes* All relevant hazardous waste products are covered under the law.

*Parameters* Facilities are required to prepare a toxics use reduction plan, which must be updated every three years. The plans describe the facilities activities intended to reduce toxics use and pollution.

The facilities also submit annual progress reports. These describe activities implemented to reduce wastes, and compare trends in waste generation for the previous and current years.

VT ANR produces a summary report of this program, which describes the success of pollution prevention efforts, in terms of toxics/waste reductions (i.e., estimates reductions from participating facilities attributable to pollution prevention planning activities).

*Temporal* Facilities began submitting annual progress reports to ANR in 1993. ANR produces biennial reports on the program's progress.

A subset of these facilities submit TRI data to EPA annually.

**Quality/**

**Methodology** Facilities' pollution prevention plans are intended to describe their efforts and plans for reducing hazardous waste and toxic chemical usage. They may contain information on the facilities current practices or waste production, but not likely in such a way as to support this indicator. ANR described the annual progress reports from facilities as merely updates on the plans. While they often do report progress, this is not presented in a comprehensive, standardized, or reliable

fashion. The agency's biennial reporting on the program's progress describes estimated reductions in waste attributable to pollution prevention planning efforts, but does not clearly discern the source of these efforts (i.e., agency technical assistance vs. other motivations).

[See EPA – New England for description of TRI].

**Availability** Facilities' pollution prevention plans may be kept on site, or can voluntarily be submitted to ANR. Facilities' annual reports are submitted directly to ANR. The ANR biennial report is produced in hard copy and is available.

[See EPA – New England for availability of TRI].