



**State of Connecticut
Department of Environmental Protection**

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Protecting and Restoring Our Environment

Annual Report 2010

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Commissioner



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Cover Photograph: Devil’s Hopyard State Park, East Haddam

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Introduction

The Connecticut Department of Environmental Protection (CTDEP) is pleased to present its Annual Report for 2010. In 2010 CTDEP continued to look inward to improve service to our customers by building on efforts to streamline permitting and enforcement processes. As 2011 unfolds, CTDEP looks forward to integrating energy policy into our mission as we make the transition to the new Department of Energy and Environmental Protection (DEEP).

During 2010, in response to Public Act 10-158, CTDEP completed analysis of its permit processes and on September 30, 2010 submitted to the legislature its Permitting Assessment Report. This report recommends steps that can be taken to improve the permit process while maintaining environmental standards. The Permitting Assessment Report covers 25 individual permits issued by CTDEP under various federal and state environmental programs to regulate air emissions, water discharges, and waste management and to protect inland water and coastal resources.

Given the significant report on permitting CTDEP issued in October 2010 and the time of transition now facing the agency, this report is being issued in a condensed format to meet legislative and federal reporting requirements. It highlights some of the more notable accomplishments of the CTDEP during 2010 and provides the annual statistics for enforcement and permitting.

CTDEP continued implementing Lean process improvements and conducted 11 Lean events during 2010. A Lean Open House was held in December 2010 to showcase the improvements achieved by the Lean initiative. CTDEP also reached out to additional stakeholders by hosting conferences on climate change for municipal officials and a summit on sustainability for the business community.

As CTDEP begins its 40th year, we look towards playing a key role in building the "green" and sustainable economy Connecticut needs to prosper in the future. As we make the transition to the Department of Energy and Environmental Protection (DEEP), we will continue our environmental and conservation functions and couple them closely with energy policy and pricing. The new DEEP will ensure that we think systematically about the environment and energy together and achieve better results and greater efficiencies in the years to come. We are committed to bringing energy and the environment together in a manner that contributes to the economic growth of Connecticut.

Permit Processes Analysis

The Permitting Assessment Report, mandated by Public Act 10-158 required CTDEP to evaluate its 25 individual permitting programs and identify "the process improvements, additional resources, staffing and programmatic changes" needed to meet specific time frame goals.

The time frame goals set out in the law required CTDEP to assess the feasibility of:

- Deciding within 60 days whether there are deficiencies in an application (referred to as the sufficiency review); and
- Completing, within 180 days after the sufficiency determination, the technical analysis necessary to issue a formal notice of tentative determination to approve or deny a permit.

The Permitting Assessment Report covers 25 individual permits issued by CTDEP under various federal and state environmental programs to regulate air emissions, water discharges, and waste management and to protect inland water and coastal resources. The primary mechanism for implementing these programs is the issuance of permits. A permit sets the conditions that allow an entity to perform a regulated activity – such as generating air emissions or wastewater discharges – in a manner that protects public health and the environment. On an annual basis CTDEP receives nearly 3,000 permit applications.

In a snapshot review of the most recent annual data from all 25 individual permit programs, nine programs met the sufficiency goal (60 days) 100% of the time. Another four programs do not require sufficiency reviews. With respect to tentative determination, 13 programs met the time frame goal (180 days) 100% of the time. Of the 25 programs, a total of nine met the combined goals.

DEP through its 25 permit programs and 56 general permits has authorized 29,627 current activities.

To gather input from Department stakeholders, CTDEP conducted more than a dozen public listening sessions, met with five Chambers of Commerce, the Connecticut Business and Industry Association, the Connecticut Home Builders Association and various environmental organizations.

Recommendations to improve the timeliness of permitting decisions include:

- More than 40 process changes (steps that can be taken without statutory or regulatory changes, such as new procedures and forms);

- More than 20 programmatic changes (which require new authorizations, such as new general permits, and regulatory and statutory changes);
- The need for an additional 53 program staff, five legal staff and six information technology staff to consistently meet the time frame goals outlined in Public Act 10-158; and
- Additional annual funding of \$500,000, largely for contractual services necessary to improve information technology for the benefit of Department staff and customers.

CTDEP is continuing to work with our stakeholders to prioritize and implement the recommended improvements and programmatic changes.

Public Act 10-158 contains provisions in addition to the permit assessment, and the CTDEP responses to them are also detailed in its full report. The full report is available at www.ct.gov/dep/permitassessment.

Lean Process Improvements Continued

CTDEP continued its Lean efforts during 2010 and an additional 11 teams participated in Lean Kaizen events. Since CTDEP began implementing Lean process improvements in 2008, 27 programs or processes have been examined for ways to increase efficiencies and eliminate waste. The projects have covered environmental quality, conservation and business administration processes throughout the agency.

CTDEP developed fact sheets that highlight the results, lessons learned and transferable knowledge from each Lean project. The projects have been grouped into six categories including [administrative](#), [compliance/enforcement](#), [data management](#), [natural resources/outdoor recreation](#), [permitting](#), and [support services](#).

CTDEP hosted a Lean Open House in December 2010 to showcase the improvements achieved by the Lean initiative. The Lean Open House drew a large and enthusiastic crowd, including Governor Rell, several key members of the General Assembly, a representative of Governor-elect Malloy's transition team and CTDEP staff that attended to learn more about the accomplishments of the 27 teams that have taken on various projects over the past two years.

By implementing the recommendations of the Lean teams, CTDEP has streamlined many processes, created efficiencies and improved customer service. CTDEP will continue to look for opportunities to apply Lean process improvements as we make the transition to the new DEEP.

2010 Lean Team Projects

- Diagnostic and Therapeutic X-Ray Device Registration and Radioactive Material
- Natural Diversity Database Species Review Request Processing
- State Forest Management Planning
- Air Quality Monitoring Data Acquisition Improvement Project
- Office of Adjudications: Evaluate_/Revise Permit Hearing Procedures and Rules of Practice
- Solid Waste Facility Individual Permits
- Surplus Property Review Process Standardization
- Coordination of Publications
- Industrial Stormwater General Permit On-line Registrations
- DEP's Potable Water Program Processes
- SIMS Permitting Data Entry Standard Operating Procedures

Sustainable Growth for Businesses

In December 2010, the Connecticut Business and Industry Association and CTDEP co-hosted a *CT Summit on Business Sustainability*. The summit focused on the need in today's challenging economy for the private sector and state government to work together to foster strong, sustainable economic growth.

At the summit, Connecticut businesses showcased their sustainability initiatives that save money, increase profits, promote recognition, and offer new business opportunities. Opportunities were provided to network with resource providers and offer input to state leaders. More than 250 people attended the summit, which was held at the Legislative Office Building in Hartford.

Summit attendees were invited to provide comments on what programs, policies, incentives, or other initiatives should the State of Connecticut pursue to better support the sustainability efforts of Connecticut businesses.

To read the comments received and sustainability highlights of Connecticut business speakers view the [Summit webpage](#).

Municipal Outreach on Climate Change

In November 2010 CTDEP and ICLEI-Local Governments for Sustainability co-sponsored the first Connecticut Municipal Climate Network meeting. The meeting brought together more than 50 local government representatives to discuss, share, and collaborate on successful climate mitigation and adaptation programs, including the Adaptation Resource Toolbox. Additional needs that were identified by the participants included: better understanding of existing climate change and adaptation planning; financial information necessary to justify municipal sustainability efforts; ready-to-use planning tools for small towns, including practical adaptation measures such as rain gardens; and incorporation of storm surge and river flood modeling in adaptation planning. Spotlight topics also included plans for developing a climate adaptation clearinghouse for Connecticut municipalities.

The CTDEP hosted a Municipal Workshop in March 2011 entitled "An Introduction to Energy Benchmarking, GHG Inventories, and Recycling." The workshop was attended by nearly 60 municipal representatives and included information for municipalities to improve their recycling programs, an introduction to greenhouse gas inventories and a hands-on demonstration of energy benchmarking. Information was also provided on the Municipal Climate Change Intern Program known as SOAR.

SOAR (Sustainable Operations: Alternative and Renewable) Energy Initiative, is a program that combines both adaptation and mitigation activities and is operated at five Connecticut Community Colleges and funded in part by the U.S. Department of Labor. SOAR students gain practical training in careers related to clean energy alternatives and renewable energy resources, including sustainable facilities, alternative transportation technology, building efficiency, and sustainable landscape ecology and conservation.

The Town of Groton is one of 10 Connecticut communities to be awarded a SOAR Climate Change intern. A student at Three Rivers Community College in Norwich, is working with the Town to advance climate change adaptation strategies begun at the Groton Climate Change Workshops, including the identification of planning areas based on their relative resiliency to climate change, and the ongoing town-wide sea level rise vulnerability assessment. In several other towns, SOAR students are conducting mitigation projects, including benchmarking of municipal buildings, developing municipal greenhouse gas inventories, and working to install or purchase clean energy technologies.

The CTDEP and the Connecticut Clean Energy Fund together use funds provided by the Emily Hall Tremaine Foundation in New Haven to pay SOAR students to work as interns helping municipalities to develop climate change adaptation and mitigation projects that the towns identify.

Compliance Assurance

The mission of the CTDEP is to protect the public health and welfare and to conserve, improve and protect the natural resources of the State of Connecticut. As trustee of the environment for present and future generations, the CTDEP assures compliance with environmental requirements by minimizing pollution through regulation, enforcement, and licensing procedures; by managing the State's parks and forests and other recreational amenities; and by developing and coordinating compliance assistance and educational programs with other public and private agencies.

The CTDEP carries out its mission in a way that encourages the social and economic development of the State while preserving the natural environment and the life it supports. It is the policy of CTDEP to achieve the highest level of environmental protection for the citizens of Connecticut by use of traditional enforcement methods together with financial, regulatory, and compliance assistance, including the facilitation and promotion of pollution prevention techniques, to produce a comprehensive compliance assurance program. Appropriate use of the various means of compliance assurance will protect public health and the environment in the most cost-effective manner.

Enforcement and Permitting Outputs

The Department maintains a strong enforcement presence by conducting compliance inspections, reviewing monitoring reports, taking appropriate enforcement action and enforcing strict permit conditions. This combination enables the Department to assure that compliance with environmental requirements is achieved and maintained by the regulated community.

The following are the FFY10 enforcement statistics for the Bureaus of Air Management; Materials Management and Compliance Assurance and Water Protection and Land Reuse as well as the five-year Department-wide average. Also included are the compliance rates for particular industry sectors in certain CTDEP media programs as well as the Department's report on permitting efforts as required by CGS 22a-6r.

Overall, 2010 enforcement statistics reflect a continued commitment to provide a sufficient deterrent to achieve the cleanest, safest environment possible for Connecticut's citizens. Beyond issuing new enforcement actions, staff resources are also spent on addressing known violations and assuring that the violator complies with regulatory requirements and returns to compliance. As a result, the Department closed 952 enforcement actions during FFY 2010.

As part of the transition to the DEEP, the Department is looking at refining existing performance measures and developing new metrics to portray the Department's efforts to preserve and protect the air, water, land and natural resources of Connecticut.

Department-wide Federal Fiscal Year 2010 Enforcement Statistics (10/01/09-9/30/10)

Action Type	Bureau of Air Management	Bureau of Water Protection and Land Reuse	Bureau of Materials Management and Compliance Assurance	Total
Notice of Violation	180	146	637 ⁺	963
Consent Order	78	12	198 [#]	288
<i>Administrative Penalties Assessed</i>	\$631,966	\$30,343	\$477,415	\$1,139,724
<i>Supplemental Environmental Projects (SEPs)</i>	\$355,704	\$8,680	\$1,182,229	\$1,546,613
Unilateral Order	3	6	4	13
Attorney General Referral	0	2	9	11
Judicial Settlement	\$1,689,000	\$8,000	\$1,857,750	\$3,554,750
Chief State's Attorney Referral	0	0	1	1
Referral to EPA	0	0	5	5
Inspections Conducted	3832 [*]	396	2672	6900

+ In FY10, the UST Program continued to implement the process improvements identified during the 2009 LEAN event. In addition to the significant increase in the number of inspections performed, NOV's issued in FY10 were more than 220.

#132 expedited consent orders were issued to marinas that provide an enforceable timeframe for compliance with vessel pressure washing requirements

* 1394 inspections conducted by Consumer Protection

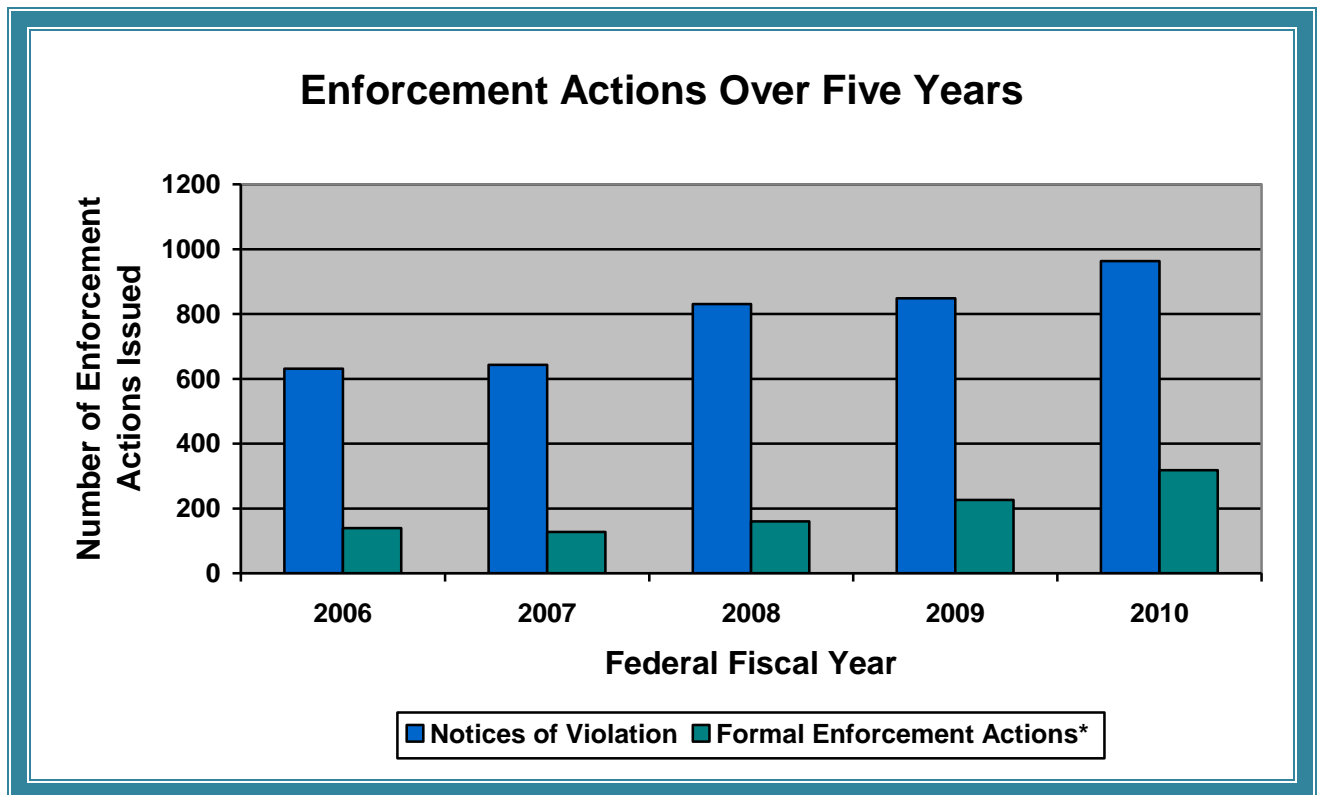
Department-wide Five-year Average

Activity	2006	2007	2008	2009	2010	Five Year Average
Referrals(AG/EPA/CSA)	36	23	32	38	17	29
Orders	103	104	128	188	301*	165
Notices of Violation	631	643	831	848	963+	783
Total Enforcement Actions	770	770	991	1074	1281	977
Inspections	6791	6910	8314	7459	6900*	7275

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*Formal enforcement actions include administrative consent and unilateral orders and referrals to EPA, the Attorney General's Office and the Chief State's Attorney's Office.

State Fiscal Year 2010 Permitting Statistics (7/1/09-6/30/10)

Section 22a-6r of the Connecticut General Statutes requires the Commissioner to report on permitting efforts, including: revenues received from permit application fees and any revenues derived from the processing of such applications as set forth in Chapter 439 of the General Statutes; the CTDEP's appropriation from the general fund for permitting activities; and the number and amount of permit application fees refunded; the number of permit applications received; the number of permit decisions issued and the number of permits pending.

Bureau	Permit Type	Applications Received	Permits Issued/ Denied	Applications Closed ¹	Applications Pending (as of 6/30/10)
Air	General Permits	4	3	5	3
	Individual	243	110	188	246
	Short Process	0	0	0	0
Hazardous Waste	General Permits	0	0	0	0
	Individual	152	122	154	34
	Short Process	0	0	0	0
Inland Water Resources	General Permits	53	35	54	25
	Individual	138	103	149	102
	Short Process	25	7	8	90
Office of Long Island Sound Programs	General Permits	26	22	25	11
	Individual	99	138	154	144
	Short Process	209	194	204	37
Pesticides	General Permits	0	0	0	0
	Individual	0	0	0	0
	Short Process	495	512	514	38
Solid Waste	General Permits	163	95	103	107
	Individual	40	5	24	89
	Short Process	51	69	74	140
Water Discharges	General Permits	1,092	1,626	1,720	267
	Individual	116	45	110	439
	Short Process	49	37	39	25
All DEP	General Permits	1,344	1,783	1,909	417
	Individual	797	527	783	1,077
	Short Process	3,682	2,561	2,585	1,441
	Totals All Apps	5,823	4,871	5,277	2,935

¹ Applications Closed represents the total number of applications that were closed including: permits issued; applications which are withdrawn, rejected for insufficiency, or denied on the technical merits of the application; and applications which were received but no permit is required.

Median Number of Days to Close Permit Applications¹ from 7/1/09-6/30/10 for All Applications Received

Bureau	Permit Type	Median Number of Days to Close Applications
Air	General Permits	85
	Individual	238
	Short Process	N/A
Hazardous Waste	General Permits	N/A
	Individual	52
	Short Process	N/A
Inland Water Resources	General Permits	90
	Individual	134
	Short Process	1
Office of Long Island Sound Programs	General Permits	71
	Individual	332
	Short Process	42
Pesticides	General Permits	N/A
	Individual	N/A
	Short Process	29
Solid Waste	General Permits	47
	Individual	181
	Short Process	783
Water Discharges	General Permits	29
	Individual	689
	Short Process	77

¹Applications Closed represents the total number of applications that were closed including: permits issued; applications which are withdrawn, rejected for insufficiency, or denied on the technical merits of the application; and applications which were received but no permit is required.

Permit Related Revenue Information

Revenues Received from Permit Application Fees and Any Revenues Derived from the Processing of Such Applications*	
7/1/09-6/30/10	\$2,173,306

* These figures represent application fees due on submittal and permit issuance fees. They do not include annual fees and other registration fees such as medical and industrial X-ray, pesticide registrations, UST's, property transfer, LEP, etc.

General Fund Appropriation	
7/1/09- 6/30/10	\$9,472,114

Amount of Permit Application Fees Refunded* (7/1/09 - 6/30/10)
Application Fees Refunded for a Total of \$39,441

* Refunds reflect withdrawn applications, duplicate fees, etc.

Federal Fiscal Year (“FFY”) 2010 Compliance Rates

Compliance rates provide an indication of how well a sector is complying with regulatory requirements at the time of inspection. An analysis of compliance rates assists CTDEP in understanding which sectors and areas need compliance assistance or additional enforcement.

The following tables show detailed compliance rates for FFY2010 for particular industry sectors in the following CTDEP media programs: Hazardous and Solid Wastes, Pesticides, Wastewater Discharges, Underground Storage Tanks, Marine Terminals, PCBs and Air Emissions. (The Federal Fiscal Year runs from October 1 through September 30.)

Unless otherwise noted the compliance rate for each category was calculated as follows:

$$\% \text{ Compliance} = 100 - \frac{\# \text{ of enforcement cases initiated}}{\# \text{ facilities inspected}} \times 100$$

Underground Storage Tanks

The Underground Storage Tank (UST) program has continued in FFY 10 with a high inspection rate due, in part, to the Federal Agency Policy Act of 2005 requirement that UST facilities be inspected every three years, and to the program’s Lean event.

Inspection Category	Inspections Conducted FFY 10	# of Enforcement Cases Initiated in FFY 10	% Inspected Facilities in Compliance
SOC* Operational/Structural	1,071	N/A (713 sites in full SOC)	67%
General Compliance (all types-SOC & non-SOC)	1424**	230	84%

*Based on only significant operational compliance points required by EPA.

Overall total includes SOC inspection number (1,071) **plus all other types of inspections..

PCBs

Seventy-eight percent of inspected PCB facilities were compliant in FFY 10

Inspection Category	Inspections Projected FFY 10	Inspections Conducted FFY 10	# of Enforcement Cases Initiated in FFY 10	% Inspected Facilities in Compliance
Referrals	8-13	8	4	50%
Complaints	12-17	15	5	67%
Clean-up Sites	10-15	21	1	95%
Other Neutral Scheme	10-15	7	1	86%

Marine Terminals

Of the FFY 10 inspected marine terminals, 93% were found to be in compliance.

Inspection Type	Inspections Conducted FFY 10	# of Enforcement Cases Initiated in FFY 10	% Inspected Facilities in Compliance
Federal Inspections	4	1	75%
State Inspections	26	1	96%

Waste Engineering and Enforcement Division- Hazardous and Solid Waste

Hazardous waste inspections for TSFs, LQGs and SQGs met or exceeded the projected inspection number for FFY 10. Inspected treatment storage facilities achieved a 80% compliance rate and SQGs achieved a 90% compliance rate.

Inspection Category	Inspection Projected FFY 10	Inspections Conducted FFY 10	Total # Facilities by category	# of NOV's FFY 10	# of inspections with SNC (2)	% of SNC Non-compliance	% inspected facilities in compliance
Treatment Storage Facility (1)	5	5	183	1	0	0	80%
Large Quantity Generator	28	33	279	19	6	18%	42%
Small Quantity Generator	30	30	1781	3	2	7%	90%
Transporter	5	5	172	2	1	20%	60%
Volume Reduction Facility	15	17	32	5	0	0%	71%
Resource Recovery Facility	2	4	7	1	0	0%	75%
Transfer Station	15	3	146	3	2	67%	0%
Landfill	10	2	31	2	0	0%	0%
Intermediate Processing Center	1	2	5	0	0	0%	100%
Complaints	N/A	149	N/A	49	13	9%	67%

(1) Active facilities

(2) SNC (Significant Non-compliance) – The violator/violation is significant enough to require formal enforcement response.

Waste Engineering and Enforcement Division- Pesticides Program

Inspected producer establishment were 100% in compliance and market place facilities were 95% compliant for FFY 10.

Inspection Category	Inspections Projected FFY 10	Inspections Conducted FFY 10	# of Enforcement Cases Initiated in FFY 10	% Inspected Facilities in Compliance
Agricultural Use & Complaint Follow-Up	14	15	8	47 %
Non-Agricultural Complaint/Concern Follow-Up & use investigation	70	69	27	60%
Producer Establishment	5	6	0	100%
Market Place	85	88	4	95 %
Certified Applicator Records	120	67	32	52%
Restricted Use Dealers	10	11	3	73%
Totals	304	256	74 65 NOV 7 CO 2 Lic. Revocation/denial	71%

Water

Water inspections exceeded the projected annual compliance inspections in each category for FFY 10. The majority, or 87%, of inspected water facilities were found to be in compliance in FFY 10.

Inspection Category	# of Facilities	Annual Compliance Inspections Projected FFY 10	Actual Inspections FFY 10	% of Facilities in Compliance*
National Pollution Discharge Elimination System ("NPDES") Industrial -Majors	33	17	22	91%
NPDES Sewage Treatment Plant ("STP") -Majors	67	34	53	85%*
State Pollution Discharge Elimination System ("SPDES") - Significant Industrial User ("SIU") - Pretreatment (Sanitary Sewer)	188	94	117	90%**
NPDES Industrial - Minors	38	4	14	89%
NPDES STP- Minors	30	3	18	80%**
Stormwater	NA	NA	62	87%

*Determined by review of Discharge Monitoring Report using Significant Non-Compliance criteria, and whether an NOV was issued from the inspection.

**Based on whether an NOV was issued from the inspection.

Air Compliance Profile by Facility Type for Federal Fiscal Year 2010

Inspection Category	# of Facilities in Category ⁱ	Reports Reviewed ⁱⁱ	Inspections Projected ⁱⁱⁱ	Inspections Conducted
Title V	84	225	42	42
General Permit	246	242	56	56
Minor	1,500		24	15
Stage II	1,533		2,500 (660 DEP)	2,192 (724 DEP)
Complaints			500	509
Other follow up			100	482

Only 3% of the below facility categories were found to be in significant non-compliance.

Inspection Category	# of Facilities in Category	# of Facilities with non-compliance ^{iv}	Compliance Rate ^v	# of Facilities with SNC ^{vi}	SNC Rate ^{vii}
Title V	84	13	85%	11	13%
General Permit	246	15	94%	3	1%
Minor	1,500	11	99%	4	0.3%
Stage II	1,533	516	66%	57	4%

ⁱ For Title V and General Permit to Limit Potential to Emit (GPLPE) sources this includes applicants and those who have permits/registrations under the program.

ⁱⁱ Includes Semi-Annual Monitoring Reports and Compliance Certifications.

ⁱⁱⁱ For Stage II this total includes the Consumer Protection inspections.

^{iv} For Stage II violations include DCP red tags, DCP repairs and NOV's.

^v The Compliance Rate = [(the number of facilities in the category minus the number of facilities in the category with one or more noncompliance issues) divided by the number of facilities in the category] multiplied by 100.

^{vi} Significant noncompliance (SNC) is defined as a definitive Connecticut high priority violation (HPV) or a Federal HPV for Title V, GPLPE and Minor Sources. For Stage II facilities, SNC means there was either an actual failure of the vapor recovery equipment or a failure to demonstrate that the facility was maintaining a properly operating vapor recovery system.

^{vii} SNC rate = [number of facilities with SNC divided by the number of facilities in the category] multiplied by 100.