
**Delaware
Division of
Air Quality**

2011

Air Toxics Strategic Plan

Year-End Status
(January through December 2011)

Summary Report

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2011 Air Toxics Strategic Plan

The Air Toxics Strategic Plan (ATSP) is a five-year plan of activities to be undertaken by Division of Air Quality (DAQ) and its partners to reduce the risk of adverse health effects caused by the inhalation of air toxics. The 2011 - 2015 ATSP, finalized on December 28, 2010, is organized within the following components.

- **Implement and grow an ongoing program to address the risks from exposure to air toxics**
- **Build a greater understanding of ambient air toxics in the environment**
- **Identify the potential harm from exposure to air toxics**
- **Gather information related to air toxics sources**
- **Identify options for reducing air toxics in the environment**
- **Implement appropriate actions to reduce the harm from exposure to air toxics**
- **Evaluate the effectiveness of the actions taken to reduce harm from exposure to air toxics**
- **Enhance DAQ Air Toxics Resources**

ACRONYMS

APP	A computer application
ATSP	Air Toxics Strategic Plan
CMAQ	Congestion Mitigation and Air Quality Improvement Program
DAQ	Division of Air Quality
DC&E	Division of Climate & Energy
DOE	U.S. Department of Energy
EPA	U. S. Environmental Protection Agency
GACT	Generally Achievable Control Technology
HAPs	Hazardous Air Pollutants, as defined in Section 112(b) of the 1990 Amendments to the Clean Air Act
MACT	Maximum Achievable Control Technology
MARAMA	Mid-Atlantic Regional Air Management Association
MPO	Metropolitan Planning Organization
NACAA	National Association of Clean Air Agencies
WILMAPCO	Wilmington Area Planning Council

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1. Implement appropriate actions to reduce the harm from exposure to air toxics

a. Key Accomplishments

- i. Awarded 455 grants and reserves totaling ~\$5.0 million, through the Delaware DC&E, for implementation of renewable and advanced energy technologies programs.
- ii. Completed 11 full compliance evaluations at facilities subject to major source air toxics standards (i.e. MACT and residual risk standards).
- iii. Completed 7 full compliance evaluations at facilities subject to area source air toxics standards (i.e. MACT and GACT standards).
- iv. Completed 62 compliance evaluations (~78% of current facilities) at perchloroethylene dry cleaning facilities.
- v. Completed 10 compliance evaluations at auto body shops (~6% of current shops) to provide compliance assistance following DAQ's adoption of Section 15 of Regulation 1138.
- vi. Completed 118 inspections of regulated gasoline dispensing facilities (~36% of current facilities).
- vii. Tracked 270 vapor recovery tests of regulated gasoline dispensing facilities (~81% of current facilities).
- viii. Completed 85 perceptible leak tests on gasoline delivery vessels (~14% of current vessels).
- ix. Completed 416 site inspections at asbestos demolition sites.
- x. Completed semi-monthly audits of the Division of Motor Vehicle's inspection and maintenance (I/M) program throughout the year and submitted the annual I/M report on July 29.
- xi. Completed installation of the Smyrna Rest Stop Electrification project on March 21.
- xii. Completed five (5) diesel retrofit installations (diesel particulate filter and diesel organic catalyst) on City of Newark trucks.
- xiii. Incorporated area source spray applied surface coating requirements of the recently adopted Section 14 of Regulation 1138 into two (2) new construction/operating permits.
- xiv. Completed the stringency determinations that demonstrate Delaware permits or regulations are at least as stringent as or more stringent than federal area source air toxics standards. These determinations are a prerequisite for requesting delegation of Delaware permits or regulations in lieu of federal air toxics rules.
 1. Existing Title V permit for a hazardous waste combustor subject to Federal Subpart EEE completed in June.
 2. Proposed amendment to Section 8 of Regulation 1138 for halogenated solvent cleaning for facilities subject to the facility-wide requirements in Federal Subpart T completed in June.

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1. Implement appropriate actions to reduce the harm from exposure to air toxics

a. Key Accomplishments – Cont.

- xv. Amended Section 8 of Regulation 1138 by adding the residual risk requirements of Federal Subpart T applicable to facilities that perform halogenated solvent cleaning on December 1.
- xvi. Submitted delegation request packages to EPA Region 3 for four (4) area source air toxics standards, whose newly adopted requirements are more public health protective than the similar national standards:
 - 1. Section 13 of Regulation 1138 on January 31, which is applicable to facilities that chemically strip coatings from miscellaneous parts or products using methylene chloride.
 - 2. Section 14 of Regulation 1138 on January 31, which is applicable to facilities that spray apply coatings containing heavy metal hazardous air pollutants (HAPs) to miscellaneous products or parts.
 - 3. Section 15 of Regulation 1138 on January 31, which is applicable to facilities that spray-applies coatings containing heavy metal hazardous air pollutants (HAPs) to motor vehicles or mobile equipment.
 - 4. Section 16 of Regulation 1138 on February 16, which is applicable to asphalt processing and asphalt roofing products manufacturing operations.
- xvii. Completed energy efficiency/conservation educational and outreach programs at the following venues:
 - 1. Great Green Expo in March.
 - 2. Delaware State Fair on July 21 – 30.
 - 3. Delaware Coast Day on October 2.
- xviii. Completed redesign of DAQ's open burning web site, as well as updating of information provided on the site.
- xix. Provided the public and regulated community with pertinent and timely information, including compliance assistance tools, through a DAQ web site during the amendment of Section 8 of Regulation 1138, which added the residual risk requirements of Federal Subpart T.
- xx. Completed the implementation of the following energy efficiency programs through the Delaware Sustainable Energy Utility in December:
 - 1. Residential lighting discounts. (Ongoing activity)
 - 2. Home performance with Energy Star. (Ongoing activity)
 - 3. Business *Plus* program. (Ongoing activity)
- xxi. Kicked off a new program through the Delaware Sustained Energy Utility to provide low-interest financing for residential, multi-family, and non-residential renewable energy projects on July 5 and completed funding awards for multi-family projects by year end.
- xxii. Completed energy benchmarking of all large State-owned facilities on June 1 as part of implementation of Executive Order 18, which focuses on energy savings and green procurement in government agencies.

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1. Implement appropriate actions to reduce the harm from exposure to air toxics

b. Significant Current Activities

- i. Began preparation of a delegation request package for newly adopted residual risk requirements adopted into Section 8 of Regulation 1138 applicable to facilities that perform halogenated solvent cleaning. (Est. completion – 1Q/12)
- ii. Continued replacement of four heavy-duty diesel engines at the Port of Wilmington. Two replacements were completed in 2010 and one replacement was completed in 2011. (Est. completion of the 4th replacement – 6/12)
- iii. Began development of a regulatory fact sheet for auto-body shop owners identifying key compliance requirements for a recently amended air regulation. (Est. dissemination – 1Q/12)
- iv. Began to monitor the effectiveness of the recently opened truck stop electrification facility at Delaware’s I-95 Rest Stop. (Ongoing activity)
- v. Awarded the last of nearly \$10 million available for sub-grants under the “Energy Efficiency and Conservation Block Grant” program to reduce energy use and fossil fuel emissions. (Est. completion of municipal projects – 9/12)
- vi. Continued to facilitate implementation of diesel retrofits using 2010 Diesel Emissions Reduction Act (DERA) funding by working with DelDOT to identify 20 to 25 DelDOT heavy-duty truck diesel retrofit candidates. (Est. completion – 6/12)
- vii. Continued to incorporate electric arc furnace requirements in Federal Subpart YYYYYY during the renewal of Evraz Claymont Steel’s Title V permit. (Est. completion – 2012)
- viii. Commenced adoption of Federal Subpart DDDDDDD applicable to area source prepared feed (animal feed) manufacturing facilities, as Section 17 of Regulation 1138. (Est. completion – 4Q/12)
- ix. Began a new program through the Delaware Sustained Energy Utility to provide low-interest financing for renewable energy projects for . . .
 1. Residential renewable energy projects. (Ongoing)
 2. Non-residential renewable energy projects. (Est. completion – 4/12)
- x. Began to provide energy education to state employees as part of implementation of Executive Order 18, which focuses on energy savings and green procurement in government agencies. (Ongoing activity)
- xi. Continued to provide compliance assistance in meeting annual testing and permitting requirements to gasoline delivery vessel fleet owners. (Ongoing activity)

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2. Implement an ongoing program to address the risks from exposure to air toxics

a. Key Accomplishments

- i. Finalized DAQ's 2012 Air Toxics Strategic Plan on December 28. The 2012 ATSP identifies planned activities to be undertaken by multiple Delaware agencies between 2012 and 2016 to reduce the adverse effects of air toxics in Delaware.
- ii. Completed and issued periodic reports that identified the progress toward the completion of activities being undertaken to reduce the adverse effects of air toxics.
 1. Issued the 2010 ATSP Year-End Status Report on March 15 identifying accomplishments and ongoing activities between January and December 2010.
 2. Issued the 2011 ATSP Mid-Year Status Report on September 19 identifying accomplishments and ongoing activities between January through June 2011.
- iii. Completed a review and update of the Delaware Area Source Air Toxics Program as part of the 2012 strategic planning process on November 3. This program establishes the regulatory needs and priorities.
- iv. Solved potential regulatory deficiency on May 31 through development of a training tool that provides sequential regulatory activities, along with examples of work products. This tool provides guidance to new regulation writers and offers a consistent approach for experienced regulation writers.

b. Significant Current Activities

- i. Continued to actively participate in the National Association of Clean Air Agency's (NACAA) air toxics, energy, global warming, monitoring, mobile source, and outreach committee programs. (Ongoing activity)
- ii. Continued to actively participate on local, regional, and national committees, including the following, to identify energy issues, develop strategies/solutions, and implement Delaware's Climate and Energy Program.
 1. Clean Cities/States Program (Alternative Fuels). (Ongoing activity)
 2. National Association of State Energy Officials. (Ongoing activity)
 3. Regional Greenhouse Gas Initiative. (Ongoing activity)
 4. Transportation & Climate Initiative. (Ongoing activity)
 5. Three Region Initiative. (Ongoing activity)

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3. Build greater understanding of ambient air toxics in the environment

a. Key Accomplishments

- i. Continued to monitor air toxics at the Wilmington [carbonyls, metals, and volatile HAPs] and Delaware City [volatile HAPs] monitoring stations. These air toxics monitoring data are being used to enhance our knowledge of air toxics in Delaware’s environment. (Ongoing activity)
- ii. Completed the monitoring portion of the “Community Air Toxics Study” that utilizes a gas chromatographic/mass spectrometer to measure concentrations of multiple hazardous air pollutants (HAPs) at various sites, including schools, in Wilmington. This data will provide insights on the spatial variation of HAP concentrations compared to the existing HAP monitoring results at Wilmington monitoring station.
- iii. Submitted a grant application for a community-based sampling project to characterize methyl bromide ambient concentrations in communities in the vicinity of the Port of Wilmington in May. (The grant was subsequently not awarded.)

b. Significant Current Activities

- i. Commenced the data analysis portion of the “Community Air Toxics Study” needed to prepare and issue the final report. (Est. completion – 3/12)
- ii. Continued to refine the Delaware Air Toxics Assessment Study Phase II modeling project. The results provide modeled ambient concentration of air toxics throughout the State. (Exp. completion – 2Q/12)

4. Identify potential harm from exposure to air toxics

a. Key Accomplishments

- i. Completed evaluation of EPA’s 2005 National Air Toxics Assessment (NATA) and communicated the Delaware-related results on January 31.
- ii. Completed the coordination of additional risk assessments with the Division of Public Health needed to finalize Phase II of the Delaware Air Toxics Assessment Study.

b. Significant Current Activities

- i. Presented on January 23 the interim findings from the analyses of the ultra-fine particle data collected at the Wilmington monitoring station, an urban environment. (Ongoing activity)
- ii. Commenced collecting ultra-fine particle data in a non-urban environment, the Lewes monitoring station, following its relocation in November. (Ongoing activity)

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5. Identify options for reducing air toxics in the environment

a. Key Accomplishments

- i. Received a 2011 Diesel Emissions Reduction Act grant funding (~\$283,000) for projects to reduce diesel emissions. Projects to be identified in 2012.
- ii. Received Clean Cities/DOE grant funding through the Transportation & Climate Initiative’s “Clean Vehicles & Fuels” workgroup for the research and planning needed to establish electric vehicle infrastructure in the 11-State region.
- iii. Submitted comments on the federally proposed “Utility MACT” standard (Part 63 Subpart UUUUU) on August 3.

b. Significant Current Activities

- i. Continued to actively participate with agencies on air quality conformity determinations as follows:
 1. Monthly WILMAPCO Air Quality Subcommittee meetings for New Castle County. (Ongoing activity)
 2. Bimonthly Dover/Kent County MPO Technical Advisory Committee meetings. (Ongoing activity)
 3. Biannual inter-agency consultation workgroup meetings. (Ongoing activity)
- ii. Continued to provide Department’s priorities for funding projects with CMAQ funds at WILMAPCO Air Quality Subcommittee meetings. (Ongoing activity)
- iii. Continued participation on Mid-Atlantic Diesel Collaborative projects. (Ongoing activity)
- iv. Began development of a smart phone “APP Store” for transit-related APPs through the Transportation & Climate Initiative’s “Innovation, Communication & Technologies” workgroup. (Est. completion – 2012)
- v. Continued to work with Delaware Clean Cities/Clean States through the Transportation & Climate Initiative to do stakeholder outreach for establishing an electric vehicle infrastructure in the 11-State region. (Est. completion – 2012)
- vi. Continued to review and make significant comments on Preliminary Land Use Service (PLUS) applications. (Ongoing activity)
- vii. Recommended participation on outreach programs for the Diesel Difference Initiative, when the Clean Air Council filled the Clean Diesel Coordinator position and resumed meetings during the Fall. (Ongoing activity)
- viii. Continued to maintain open communication with the Claymont Community Coalition on air toxics and other issues. (Ongoing activity)

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6. Gather information related to air toxics sources

a. Key Accomplishments

- i. Submitted the Underground Storage Tanks (UST) Semiannual Activities Report to EPA in April and October 2011.

b. Significant Current Activities

- i. Continued to identify new and previously unpermitted dry cleaners, auto-body shops, and gasoline delivery vessel owners. (Ongoing activity)
- ii. Continued to incorporate new notifications and maintain existing active sites in the Delaware Online Asbestos Notification System. (Ongoing activity)
- iii. Commenced report preparation on the test findings based on “remote sensing” testing for PM 2.5 emissions from light-duty vehicles that was completed on November 25. (Est. completion – 2012)

7. Evaluate the effectiveness of the actions taken to reduce harm from exposure to air toxics

a. Key Accomplishments

- i. Continued to monitor air toxics at the Wilmington [carbonyls, metals, and volatile HAPs] and Delaware City [volatile HAPs] monitoring stations. These air toxics monitoring data are being used to enhance our knowledge of the changes in the ambient concentrations of air toxics over time. (Ongoing activity)
- ii. Completed assessment of school bus operators’ compliance with anti-idling requirements of Regulation 1145, Excessive Idling of Heavy Duty Vehicles, at various schools throughout Delaware between April and June. No excess idling was reported. The next compliance assessments will be conducted during winter months.

b. Significant Current Activities

- i. Commenced development of a community outreach concept that provides relevant information to meet the needs of the residents near the recently restarted Delaware City refinery. (Est. completion – 2012)

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8. Air toxics resources development

a. Key Accomplishments

- i. Provided training recommendations to NACAA/MARAMA for air toxics-related training for inclusion in their development of a National Training Strategy and the new Learning Management System on June 6.
- ii. Co-authored technical paper on “An approach to characterize within-grid concentration variability in air quality models” for 2012 publishing in Atmospheric Environment.

b. Significant Current Activities

- i. Identified the need for training of air permit writers in the following areas:
 1. Applicability determinations related to the multitude of area source standards that EPA has adopted over the last several years. (Est. completion – 2012)
 2. Relevant requirements of Sections 13 (paint stripping) and 14 (spray applied coatings) of Regulation 1138, which are notably different than existing VOC requirements in Regulation 1124. (Est. completion – 2012)