

**Delaware
Division of
Air Quality**

2012

Air Toxics Strategic Plan

Year End Status
(January through December 2012)

Summary Report

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2012 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 2012 - 2016 ATSP, finalized on December 28, 2011, was organized within the following components.

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

ACRONYMS

ATSP	Air Toxics Strategic Plan
DAQ	Division of Air Quality
DelDOT	Delaware Department of Transportation
DERA	Diesel Emissions Reduction Act
DNREC	Department of Natural Resources and Environmental Control
EV	Electric Vehicle
GACT	Generally Available Control Technology
EPA	U. S. Environmental Protection Agency
HAPs	Hazardous Air Pollutants, as defined in Section 112(b) of the 1990 Amendments to the Clean Air Act
I/M	Inspection and Maintenance
MACT	Maximum Achievable Control Technology
MARAMA	Mid-Atlantic Regional Air Management Association
NACAA	National Association of Clean Air Agencies
NESCAUM	Northeast States for Coordinated Air Use Management
QA	Quality Assurance
QC	Quality Control
TCI	Transportation & Climate Initiative
VOC-RACT	Volatile Organic Compound – Reasonably Available Control Technology
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. Completed the fourth (the final of 4) heavy-duty diesel engine replacement for the Port of Wilmington project in August.
- ii. Completed the engine replacement for Wilmington Tug's diesel engine repowering project in September.
- iii. Responded to 12 incidences of improperly disposed asbestos containing waste; initiated and coordinated proper disposal.
- iv. Took enforcement actions against 7 gasoline dispensing facilities for non-compliant Stage 1 or Stage 2 operation.
- v. Incorporated recently adopted lead acid battery manufacturing requirements of Section 11 of Regulation 1138 into Johnson Control's operating permit.
- vi. Developed, together with the Air Quality Partnership, a skit targeted towards children on the importance of understanding air quality and steps to take to fight air pollution.
- vii. Conducted the 2012 Ozone Season Kick-Off outreach in collaboration with the Air Quality Partnership and Delaware Nature Society on April 21, which in addition to other educational materials included the recently developed children's skit (see item 1.a.xv.).
- viii. Conducted outreach program on May 4 associated with the opening of 20 newly installed electrical outlets for refrigerated truck at the Trinity Port Service facility; this electrification project replaced the previously used diesel generators.
- ix. Revised and customized mobile source emission/educational information for high school students and incorporated the updated information into the 2012 Envirothon held on April 28.
- x. Published an open burning educational article "Dioxins in My Back Yard?" in the June 2012 Environmental Protection Matters.
- xi. Developed a new diesel anti-idling outreach program that included an anti-idling display and new information in July.
- xii. Coordinated the new diesel anti-idling outreach program (see 1.a.xx) into the broader DNREC "Connect the Dots" exhibit at the Delaware State Fair in July.
- xiii. Conducted 3 public workshops (one per county) in conjunction with the Small Business Ombudsman during July on the proper removal and disposal of asbestos for demolition contractors.
- xiv. Completed 2 school bus anti-idling videos (a long and short version) in December in partnership with Public Affairs.

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

a. Key Accomplishments - Continued

- xv. Adopted Section 17 of Regulation 1138 to add the area source requirements similar to Federal Subpart DDDDDDD that are applicable to prepared feeds manufacturing facilities.
- xvi. Repealed Section 29 of Regulation 1120 that is applicable to existing hospital, medical, and infectious waste incinerator. The repeal was appropriate since all applicable sources have been shut down and dismantled.
- xvii. Submitted delegation request package to EPA Region 3 on March 23 for the newly adopted residual risk requirements under Section 8 of Regulation 1138 that is applicable to facilities that perform halogenated solvent cleaning operations.

b. Significant Current Activities

- i. Identified 21 unpermitted existing facilities that were subject to area source requirements under either Section 5 (6 perchloroethylene dry cleaners) or Section 15 (15 auto-body repair shops); commence preparation of operating permits for these facilities. (Est. completion – 2013)
- ii. Continued to provide assistance consistent with the Compliance Assistance Oversight Plan to the following. (Ongoing activities)
 - 1. Perchloroethylene dry cleaning facilities (22).
 - 2. Auto-body repair shops (143).
 - 3. Gasoline delivery vessel fleets owners.
- iii. Continued to provide the public and regulated community with pertinent and timely information, including compliance assistance tools, associated with DAQ's air toxics regulatory development activities, including . . .
 - 1. Amending Section 8 of Regulation 1138 to add the residual risk requirements of Federal Subpart T applicable to facilities that perform halogenated solvent cleaning. (Completed in January)
 - 2. Adopting Section 17 of Regulation 1138 to add the area source requirements of Federal Subpart DDDDDDD applicable to prepared feeds manufacturing facilities. (Completed in December)
 - 3. Repealing Section 29 of Regulation 1120 applicable to existing hospital, medical, and infectious waste incinerators. (Completed in December)
 - 4. Amending Section 6 of Regulation 1138 to add the residual risk requirements of Federal Subpart N applicable to facilities that perform chromium electroplating and anodizing operations. (Est. completion – 4Q13)
 - 5. Amending Section 10 of Regulation 1138 to add the recent federal changes to Federal Subpart WWWW applicable to facilities that perform non-chromium electroplating and polishing operations. (Est. completion – 4Q13)

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

b. Significant Current Activities - Continued

- iv. Continued to provide information and compliance assistance on air toxics and other DNREC regulatory requirements for small business through the Regulatory Advisory Service. (Ongoing activity)

c. Pending

- i. Identified 37 DeIDOT trucks to be equipped with diesel retrofit installations (diesel particulate filter and diesel organic catalyst). Completed 20 installations in 2012 and 17 will be completed in 2013; however, these installations are on hold pending resolution of retrofit supplier problems. (Est. completion – Unknown)

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

a. Key Accomplishments

- i. Completed the 4 scheduled full compliance evaluations at facilities subject to major HAPs source standards (i.e., MACT and residual risk standards).
- ii. Completed 18 compliance evaluations at perchloroethylene dry cleaning facilities (~25% of known facilities).
- iii. Completed 100 compliance evaluations at auto-body repair shops (~64% of known facilities).
- iv. Completed 95 inspections at regulated gasoline dispensing facilities (~27% of known facilities).
- v. Tracked 267 vapor recovery tests at regulated gasoline dispensing facilities (~77% of known facilities).
- vi. Completed 61 perceptible leak tests on gasoline delivery vessels (10% of known delivery vessels).
- vii. Completed 453 site inspections, including 9 revisits, at asbestos demolition sites.
- viii. Completed 732 surveys of statewide park and ride lots; identified and reported 270 vehicles with expired vehicle tags (~0.8% of all surveyed vehicles).
- ix. Completed semi-monthly audits of the Division of Motor Vehicle's inspection and maintenance (I/M) program and submitted annual I/M report to EPA Region 3 in July.
- x. Continued to monitor air toxics at the Wilmington [carbonyls, metals, and volatile HAPs] and the Delaware City [volatile HAPs] monitoring stations. These air toxics monitoring data enhance our knowledge of the changes in the ambient concentrations of air toxics over time. (Ongoing activity)

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

a. Key Accomplishments - Continued

- xi. Conducted compliance assessments of school bus operators with anti-idling requirements of Regulation 1145, Excessive Idling of Heavy Duty Vehicles, at various schools throughout Delaware during the winter and spring periods. The audits indicated a high level of compliance and no major changes in the anti-idling outreach program was indicated. (Ongoing activity)

b. Significant Current Activities

- i. Completed 14 [of 23 scheduled for 2012-2013] full compliance evaluations at facilities subject to area HAPs source standards (i.e., MACT and GACT standards). (Est. completion – 9/13)
- ii. Identified the need for staff training on requirements of Section 14 (air toxics emissions from spray-applied coating operations) of Regulation 1138 during assessment of the permit and compliance evaluation programs. Training program is under development. (Est. completion – 2Q/13)

3. Identify options for reducing air toxics in the environment

a. Key Accomplishments

- i. Completed a project to identify the “Metrics and Best Practices” for quantifying the impacts of climate on land use planning/policies through the Transportation & Climate Initiative (TCI) “Sustainable Communities” workgroup.
- ii. Developed electric vehicle (EV) outreach materials designed for varied targets (employers, government, etc.) through the TCI “Clean Vehicles & Fuels” workgroup and our Clean Cities partners. Outreach materials are available on the TCI website.
<http://www.transportationandclimate.org/content/northeast-electric-vehicle-network>
- iii. Compiled a portfolio of smartphone APPs to assist EV users by providing real-time information on locations of charging locations and to reserve their use through the TCI “Innovation, Communication & Technologies” workgroup. <http://www.transportationandclimate.org/content/electric-vehicle-apps>
- iv. Completed Phase 1 of freight study that identified regional freight flows and mitigation measures to reduce emissions through the TCI “Freight” workgroup.
<http://www.transportationandclimate.org/content/freight-movement-northeast>
- v. Submitted 2013 Diesel Emissions Reduction Act (DERA) grant application.

b. Significant Current Activities

- i. Continued to maintain open communication with the Claymont Community Coalition on air toxics and other issues, such as the Claymont Dust Study. (Ongoing activity)

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3. Identify options for reducing air toxics in the environment

b. Significant Current Activities - Continued

- ii. Continued to participate at monthly WILMAPCO meetings for New Castle County and biannual workgroup meetings for Kent and Sussex Counties; provided the Department's priorities on funding projects. (Ongoing activity)
- iii. Continue participation on Mid Atlantic Diesel Collaborative (MADC) projects, evaluated and commented on submitted proposals for competitive grants, and presented information describing Delaware's DERA projects on a MADC-sponsored webinar on November 13. (Ongoing activity)
- iv. Continued to promote smart growth through review and providing comment on Preliminary Land Use Service (PLUS) applications. (Ongoing activity)
- v. Commenced a research project to document how the programs in the 11 states in the TCI region support sustainable communities. (Ongoing activity)
- vi. Continued to support of DAQ planning efforts on phasing out of Stage 2 requirements at regulated gasoline dispensing facilities. (Ongoing activity)

4. 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 the Delaware City [volatile HAPs] monitoring stations. These air toxics monitoring data enhance our knowledge of air toxics in Delaware's environment. (Ongoing activity)

b. Significant Current Activities

- i. Issued the initial report for the "Community Air Toxics Study" (CATS) project on December 17. The CATS project utilized a gas chromatographic/mass spectrometer to measure concentrations of multiple HAPs at various sites, including schools, in Wilmington. This project will provide insights on the spatial variation of HAP concentrations compared to the existing HAP monitoring results at the Wilmington monitoring station. The follow-up report will be issued following completion of final QA and QC activities. (Est. completion – 1Q/14)
- ii. Completed preparations for a new methyl bromide monitoring project in the communities around the Port of Wilmington. Project will be undertaken when port fumigation activities resume. (Exp. completion – Unknown)
- iii. Found funding and submitted purchase order to acquire a portable gas chromatographic system for an air toxics monitoring project in communities around the Delaware City Refinery. (Exp. completion - 2013)
- iv. Found funding and submitted purchase order to repair to the upper air profiler. Following repairs, the profiler will be relocated to Sussex County for use on a University of Delaware project. (Exp. completion - 2013)

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5. Identify the potential harm from exposure to air toxics

a. Key Accomplishments

- i. Completed analysis of ultra-fine particle data collected from urban and rural locales and presented results at the Community Modeling & Analysis Systems (CMAS) conference on October 17.
- ii. Reviewed and performed modeling to support risk-based permit decisions on a permit application from a facility at the Port of Wilmington.

6. Gather information related to air toxics sources

a. Key Accomplishments

- i. Submitted the 2011 HAPs emissions inventory for stationary sources to EPA's Emission Inventory System for inclusion in the National Emissions Inventory (NEI).
- ii. Submitted the Underground Storage Tanks (UST) Semiannual Activities Report to EPA in April and October.

b. Significant Current Activities

- i. Continued to identify new and previously unpermitted dry cleaners, auto-body repair 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 (DOANS). (Ongoing activity)

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

a. Key Accomplishments

- i. Formalized the process infrastructure necessary to identify, assess, and mitigate unacceptable air toxics risk and incorporated this process into the DAQ 2013 Air Toxics Strategic Plan.
- ii. Finalized the DAQ 2013 Air Toxics Strategic Plan on December 31. The updated plan identified planned activities between 2013 and 2017 to identify and mitigate unacceptable risk from the public's exposure to air toxics.
- iii. Issued the Mid-Year Status Report for the DAQ 2012 Air Toxics Strategic Plan on September 18. This report summarized the key accomplishments between January 1 and June 30. It also identified the significant ongoing activities continuing into the second half of 2012.
- iv. Issued the Year-End Status Report for the DAQ 2011 Air Toxics Strategic Plan on March 12. This report summarized the key accomplishments during 2011 and identified the significant ongoing 2011 activities continuing into 2012.

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

b. Significant Current Activities

- i. Continued to actively participate on NACAA's air toxics, emissions inventory, modeling, monitoring, mobile source, and outreach committee programs. (Ongoing activity)
- ii. Continued to actively participate in the National Small Business Assistance program. (Ongoing activity)
- iii. Continued to actively participate in regional and national programs, including the following, to identify greenhouse gas issues, develop strategies, and identify Delaware solutions. (Ongoing activities)
 1. Regional Greenhouse Gas Initiative.
 2. Transportation & Climate Initiative
 3. North America 2050 Partnership
 4. Clean Cities/States Program (Alternative Fuels)
 5. Clean Fuel Standard
 6. NESCAUM Low Emission Vehicle Workgroup

8. Air toxics resources development

a. Key Accomplishments

- i. DAQ Management participated in the MARAMA Air Toxics Workshop held over August 21 and 22.
- ii. Implemented a cooperative arrangement with DNREC's Groundwater Discharge Section to share results and information gathered during each program's inspections of auto-body repair shops.

b. Significant Current Activities

- i. Began development of internal air toxics training program for permit writers covering Section 14 of Regulation 1138 and related VOC-RACT requirements in Regulation 1124 that are applicable to operations that spray-applied surface coatings to miscellaneous parts and products. (Est. completion – 2Q/13)
- ii. Continued to address small business's requests for information or assistance via direct contacts, telephone calls, and email. (Ongoing activity)

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8. Air toxics resources development

c. Pending

- i. Development of an internal air toxics training program for permit writer that facilitates applicability determinations for the multitude of area source standards that EPA has adopted over the last several years. (Est. completion – Unknown, limited resources)