

**Delaware  
Division of  
Air Quality**

**2013**

**Air Toxics Strategic Plan**

**Year-End Status**  
(January through December 2013)

**Summary Report**

**Delaware**  
**Division of Air Quality**  
**2013 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 2013 - 2017 ATSP, finalized on December 31, 2012, 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 an ongoing program to address the risks from exposure to air toxics**
- 8. Enhance DAQ Air Toxics Resources**

## ACRONYMS

<b>AERMOD</b>	<b>An EPA Dispersion Model</b>
<b>BETX</b>	<b>Benzene, Ethyl Benzene, Toluene, and Xylenes</b>
<b>Cal-LEV III</b>	<b>California's Super Ultra Low-Emission Vehicle Program</b>
<b>CO<sub>2</sub></b>	<b>Carbon Dioxide</b>
<b>DAQ</b>	<b>Division of Air Quality</b>
<b>DelDOT</b>	<b>Delaware Department of Transportation</b>
<b>DELJIS</b>	<b>Delaware Criminal Justice Information System</b>
<b>DNREC</b>	<b>Delaware Department of Natural Resources and Environmental Control</b>
<b>GACT</b>	<b>Generally Available Control Technology</b>
<b>EPA</b>	<b>U. S. Environmental Protection Agency</b>
<b>HAPs</b>	<b>Hazardous Air Pollutants, as defined in Section 112(b) of the 1990 Amendments to the Clean Air Act</b>
<b>LEV</b>	<b>Low Emission Vehicle</b>
<b>MACT</b>	<b>Maximum Achievable Control Technology</b>
<b>NACAA</b>	<b>National Association of Clean Air Agencies</b>
<b>NESCAUM</b>	<b>Northeast States for Coordinated Air Use Management</b>
<b>WILMAPCO</b>	<b>Wilmington Area Planning Council</b>
<b>ZEV</b>	<b>Zero Emission Vehicle</b>

# **2013 Air Toxics Strategic Plan – Year-End Status – Summary Report**

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

### **a. Key Accomplishments**

- i. Completed 37 diesel retrofits of DelDOT heavy-duty trucks in June.
- ii. Responded to six incidences of improperly disposed asbestos containing waste; initiated and coordinated proper disposal. (Ongoing activity)
- iii. Took enforcement actions against two gasoline dispensing facilities for non-compliant Stage II operation.
- iv. Provided assistance consistent with the Compliance Assistance Oversight Plan to the following:
  1. Perchloroethylene dry cleaning facilities (28). (Ongoing activity).
  2. Auto-body repair shops (176). (Ongoing activity).
  3. Gasoline delivery vessel fleets owners. (Ongoing activity).
- v. Incorporated recently adopted lead acid battery manufacturing requirements of Section 11 of 7 DE Admin. Code 1138 into Johnson Control's operating permit dated January 8.
- vi. Incorporated recently adopted halogenated cleaning solvent residual risk requirements of Section 8 of 7 DE Admin. Code 1138 into HandyTube Corporation's Title V permit renewal.
- vii. Incorporated auto-body repair shop requirements of Section 15 of 7 DE Admin. Code 1138 into the operating permit for one newly opened facility.
- viii. Issued 99 approved open burning notifications; three notifications were not approved.
- ix. Worked with the Division of Energy & Climate on development of a program to promote the deployment of clean-fueled vehicles in Delaware, which included:
  1. A clean-fueled vehicle display with supporting educational materials at an outreach during the Delaware State Fair over July 18 - 27.
  2. Amendment of 7 DE Admin. Code 1140 on December 1 to include Cal-LEV III requirements.
- x. Conducted public outreach programs utilizing newly developed information materials on hybrid cars and trip chaining.
  1. Delaware State Fair (July 18 - 27)
  2. Delaware Coast Day (October 6)
- xi. Completed incorporation of the newly revised home owner's guide on open burning restrictions into the DAQ webpages in July.
- xii. Amended 7 DE Admin. Code 1147 on March 1 to include petroleum refineries in the CO<sub>2</sub> Budget Trading Program, which is designed to stabilize and then reduce anthropogenic emissions of CO<sub>2</sub>; such reductions would also reduce air toxics emissions.

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

### a. Key Accomplishments - Continued

- xiii. Amended Section 6 of 7 DE Admin. Code 1138 on September 1 to add the recently promulgated residual risk requirements of Federal 40 CFR Part 63 Subpart N. Section 6 is applicable to facilities that perform chromium electroplating and anodizing operations.
- xiv. Amended Section 10 of 7 DE Admin. Code 1138 on September 1 to add recent changes to Federal 40 CFR Part 63 Subpart WWWW. Section 10 is applicable to facilities that perform non-chromium electroplating and polishing operations.
- xv. Amended 7 DE Admin. Code 1140 on December 1 to include Cal-LEV III requirements into the Delaware Low Emission Vehicle program.
- xvi. Amend mobile source State Implementation Plan replacing the “parking lot” surveillance element of the inspection and maintenance (I/M) program with more resource-effective alternative procedures.
- xvii. Provided the public and regulated communities with pertinent and timely information, including compliance assistance tools, associated with DAQ’s regulatory development activities, including the amendments to Sections 6 and 10 of 7 DE Admin. Code 1138 and to 7 DE Admin. Codes 1140 and 1147.
- xviii. Submitted delegation request packages to EPA to implement and enforce the following Delaware air toxics standards in place of related Federal standards.
  - 1. Newly adopted area source standard under Section 17 of 7 DE Admin. Code 1138 on January 30. Section 17 is applicable to prepared animal feeds manufacturing operations.
  - 2. Amended Section 6 of 7 DE Admin. Code 1138 on December 27. Section 6 is applicable to facilities that perform chromium electroplating and anodizing operations.
  - 3. Amended Section 10 of 7 DE Admin. Code 1138 on December 27. Section 10 is applicable to facilities that perform non-chromium electroplating and polishing operations.

### b. Significant Current Activities

- i. Continued to review and approve, if appropriate, gasoline dispensing facility’s Stage I and Stage II permit applications. (Ongoing activity)
- ii. Began working with the new Small Business Ombudsman to redefine and expand the existing asbestos program that targets its outreach to the public, certified contractors, professional service firms, and government agencies. (Ongoing activity)
- iii. Began working with the Delaware Fire Service to develop a new program to educate fire fighters and property owners on the open burning restrictions. (Ongoing activity)
- iv. Continued working with the Air Quality Partnership on the character branding project to communicate an air quality message targeted to elementary school students. (Ongoing activity)

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

### **b. Significant Current Activities – Cont.**

- v. Awarded the character branding contract during 3Q/13 and began working with the contractor on the branding project. (Est. completion – April 30, 2014)
- vi. Began development of an air quality-themed educational program, including competitive activities, targeting high school students who will participate in the 2014 Envirothon. (Est. completion – April 10, 2014)
- vii. Began the amendment of 7 DE Admin. Codes 1124 and 1138 to incorporate applicable area source requirements under Federal Subpart CCCCCC that would be applicable to gasoline dispensing facilities. (Est. completion – 4<sup>th</sup> Quarter 2014)
- viii. DAQ commenced major reorganization and redesign of the Division’s web sites, including air toxics, mobile sources, stationary sources and area sources. Webpage content is being changed and improved during this migration process. (Ongoing activity)

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

### **a. Key Accomplishments**

- i. Updated the Delaware Environmental Navigator (DEN) system to identify gasoline dispensing facilities that failed to notify the Department of completion of annual testing.
- ii. Completed four full compliance evaluations at facilities subject to major source HAPs standards (i.e., MACT and residual risk standards). All four sources were found to be in compliance with the major source HAPs standards.
- iii. Completed nine full compliance evaluations at facilities subject to area source HAPs standards (i.e., GACT standards). All nine sources were found to be in compliance with the area source HAPs standards.
- iv. Completed 27 compliance evaluations at perchloroethylene dry cleaning facilities (~53% of known facilities).
- v. Completed 24 compliance evaluations at auto-body repair shops (~18% of known facilities).
- vi. Completed 109 inspections at regulated gasoline dispensing facilities (~32% of known facilities). Two enforcement actions were taken for non-compliance.
- vii. Tracked 350 vapor recovery system tests at 301 regulated gasoline dispensing facilities (~88% of known facilities).
- viii. Completed 41 perceptible leak tests on gasoline delivery vessels (~5% of known delivery vessels). All gasoline delivery vessels were found to be in compliance.

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

#### **a. Key Accomplishments – Cont.**

- ix. Completed 526 site inspections at asbestos demolition sites.
- x. Completed monthly surveys of statewide park and ride lots; identified and reported 371 of 33,333 vehicles had expired vehicle tags (~1.1% of all surveyed vehicles).
- xi. Completed semi-monthly audits of the Division of Motor Vehicle's inspection and maintenance (I/M) program during this period and submitted the 2012 annual I/M report to EPA on July 31.

#### **b. Significant Current Activities**

- i. Continued to monitor air toxics at the Wilmington [carbonyls, metals, and volatile HAPs] and the Delaware City [volatile HAPs] monitoring stations. However, carbonyl sampler problems, which were resolved in January 2014, prevented sampling in Wilmington during 4Q13. These air toxics monitoring data enhance our knowledge of the changes in the ambient concentrations of air toxics over time. (Ongoing activity)
- ii. Continued to provide compliance assistance to gasoline delivery vessel fleet owners in meeting annual vapor-tightness testing and permitting requirements. (Ongoing activity)

### **3. Identify options for reducing air toxics in the environment**

#### **a. Key Accomplishments**

- i. Awarded 2013 Diesel Emissions Reduction Act (DERA) grant funding from EPA in September. These DERA funds will be used for the following projects.
  - 1. A diesel propulsion engine replacement project directed by Delaware Bay Launch Services.
  - 2. The 'moveable monitoring platform (van) wrap' project that will be used in part for education and outreach programs.
- ii. Determined that the use of DELJIS data was at least as effective and required significantly less manpower than the continued surveillance of park and ride lots. The Start Action Notice to revise the State Implementation Plan to allow utilization of the DELJIS data was approved on June 6 and the final Secretary's Order was issued on December 17.

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## **3. Identify options for reducing air toxics in the environment**

### **b. Significant Current Activities**

- i. Continued working with other organizations to identify air quality problems, develop strategies, and implement Delaware solutions, as follows:
  1. Participated on internal, local, and NACAA air toxics committees. (Ongoing activity)
  2. Participated on internal, local, regional, and national greenhouse gas initiatives, such as the Regional Greenhouse Gas Initiative, etc. (Ongoing activity)
  3. Participated on Mid Atlantic Diesel Collaborative (MADC) projects through conference calls and MADC-sponsored webinars. (Ongoing activity)
  4. Participated at monthly WILMAPCO meetings for New Castle County and biannual workgroup meetings for Kent and Sussex Counties providing the Department's priorities on funding projects. (Ongoing activity)
  5. Participated on the Claymont Coalition and participated on the Claymont Dust Study. (Ongoing activity)
  6. Supported the Transportation & Climate Initiative. (Ongoing activity)
  7. Supported DAQ's Planning Branch efforts on phasing out of Stage II requirements at regulated gasoline dispensing facilities (GDFs) by providing demographic information on Delaware GDFs, cost information for the conversion and decommissioning of Stage II systems, and participating in DAQ's three regulatory workgroup meetings. (Ongoing activity)
- ii. Continued to promote transit oriented design through review and providing comment on Preliminary Land Use Service (PLUS) applications. (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. However, carbonyl sampler problems, which were resolved in January 2014, prevented sampling in Wilmington during 4Q13. All validated results were submitted to the EPA. (Ongoing activity)
- ii. Completed the installation of the Upper Air Profiler in March and the installation of the meteorological tower in May in Lewes.
- iii. Commenced operation and began data collection for the Upper Air Profiler in April and the meteorological tower in July. This project provides meteorological data to University of Delaware and National Oceanic and Atmospheric Administration (NOAA).
- iv. Received the final report on the remote sensing study results on August 22; monitoring had been conducted in June.

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## **4. Build greater understanding of ambient air toxics in the environment**

### **b. Significant Current Activities**

- i. Completed the equipping and testing of a moveable monitoring platform (former van) on June 30 providing DAQ the capability for measuring concentration of ‘non-air toxic’ pollutants at locations other than the existing stationary monitoring stations. (Complete)
- ii. Started up the initial moveable monitoring platform monitoring project in Claymont during August, measuring PM<sub>2.5</sub>, ozone, and black carbon. The EPA is co-conducting a passive air toxics monitoring project in Claymont. (Exp. project completion – March 2014)
- iii. Identified funding source to add the initial air toxics monitoring capabilities to the moveable monitoring platform and submitted purchase order for a Synspec gas chromatograph for BTEX in December. (Exp. completion of installation – March 2014)

## **5. Identify the potential harm from exposure to air toxics**

### **a. Key Accomplishments**

- i. Provided Engineering & Compliance Branch with potential health impact data due to emissions associated with a methyl bromide fumigation operations.

### **b. Significant Current Activities**

- i. Performed risk screenings prior to issuance of new and revised air permits. All screen results were below the threshold for conducting more sophisticated risk assessment, such as AERMOD. (Ongoing activity)

## **6. Gather information related to air toxics sources**

### **a. Key Accomplishments**

- i. Submitted the Underground Storage Tanks (UST) Semiannual Activities Reports, which included gasoline dispensing facilities, to EPA in April and October.
- ii. Completed major emphasis on populating Delaware Environmental Navigator (DEN) database with new and previously unpermitted dry cleaners and auto-body repair shops in June.

### **b. Significant Current Activities**

- i. Continued to incorporate new notifications and to maintain existing active sites in the Delaware Online Asbestos Notification System (DOANS). (Ongoing activity)

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

### **a. Key Accomplishments**

- i. Issued the Year-End Status Report for the DAQ 2012 Air Toxics Strategic Plan on March 21. This report provided end of year status for each air toxics-related activity, summarized the key accomplishments of 2012, and identified significant 2012 activities continued into 2013.
- ii. Issued the Mid-Year Status Report for the DAQ 2013 Air Toxics Strategic Plan on October 14. 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 2013.
- iii. Developed and issued the DAQ 2014 Air Toxics Strategic Plan on December 23. The new plan identified planned activities between 2014 and 2018 to identify and mitigate unacceptable risk due to the public's exposure to air toxics.

### **b. Significant Current Activities**

- i. Continued to build the infrastructure to implement DAQ's risk-based process to mitigate unacceptable air toxics impacts by
  1. Acquiring a moveable monitoring platform. (Complete)
  2. Acquiring monitoring equipment and supporting fixtures for future monitoring projects.
    - A. For non-air toxics monitoring capabilities. (Complete)
    - B. For air toxics monitoring capabilities, purchase order for a Synspec gas chromatograph was submitted in December. (Est. acquisition – January 2014)
  3. Installing and testing of the monitoring equipment and supporting fixtures
    - A. For non-air toxics monitoring capabilities. (Complete)
    - B. For air toxics monitoring capabilities. (Est. completion – March 2014)
- ii. Continued to actively participate on NACAA's air toxics, emissions inventory, modeling, monitoring, mobile source, and outreach committee programs. (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 LEV/ZEV Workgroups.

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### **8. Air toxics resources development**

#### **a. Key Accomplishments**

- i. Implement the cooperative arrangement with DNREC's Groundwater Discharge Section to share results and information gathered during each program's inspections of auto-body repair shops.