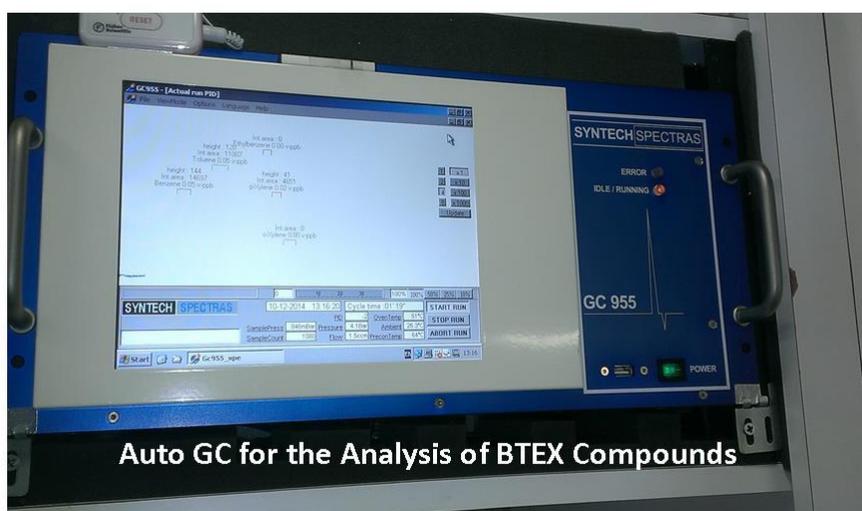


Delaware Division of Air Quality

2015

Air Toxics Strategic Plan

Mid-year Status Summary Report (January through June 2015)



Delaware
Division of Air Quality
2015 Air Toxics Strategic Plan

The Air Toxics Strategic Plan 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 2015 - 2019 Air Toxics Strategic Plan, finalized on December 30, 2014, was organized within the following 8 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. Continue to grow the ongoing program to address the risks from exposure to air toxics**
- 8. Enhance DAQ Air Toxics Resources**

ACRONYMS

7 <u>DE Admin.</u> <u>Code</u>	Title 7 of the Delaware Administrative Code
BTEX	Benzene, Toluene, Ethyl benzene, & Xylenes
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DCR	Delaware City Refinery
DMV	Delaware Division of Motor Vehicles
EPA	U. S. Environmental Protection Agency
GACT	Generally Available Control Technology
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
NACAA	National Association of Clean Air Agencies
NESCAUM	Northeast States for Coordinated Air Use Management
QA/QC	Quality Assurance and Quality Control
VOC	Volatile Organic Compound
WILMAPCO	Wilmington Area Planning Council

2015 Air Toxics Strategic Plan – Mid-year Status – Summary Report

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

a. Key Accomplishments

- i. Responded to four incidences of improperly disposed of asbestos containing waste; initiated and coordinated proper disposal.
- ii. Responded to 103 incidences of improperly managed projects involved with the disposal of asbestos containing waste; provided guidance to assure proper cleanup and disposal.
- iii. Incorporated the applicable MACT standard requirements into two Title V operating permits during their respective renewals on January 15 (Delaware City Refinery) and June 29 (Chemours-Edgemoor).
- iv. Incorporated the applicable area source GACT standard requirements from Section 17 of 7 DE Admin. Code 1138 into state operating permits for two facilities: Perdue – Bridgeville (February 13) and Harim – Seaford (June 12). The Section 17 regulatory requirements have now been incorporated into the operating permits of all prepared feed facilities.
- v. Responded to 378 open burning requests; issued 89 approved open burning notifications.
- vi. Continued to identify incidences of potential or improper open burning activities through the neighborhood watch and other reporting programs; instigated 11 interventions during this period.
- vii. Completed public outreaches through the development and implementation of an air quality-themed educational program, which targeted
 1. High school students that participated in the 2015 Envirothon on April 30.
 2. The general public during Air Quality Awareness Week (April 27 – May 2).

b. Significant Current Activities

- i. Submitted the purchase order for a Tier 4 Street Sweeper for use by Delaware Department of Transportation on April 28. Near half of the ~\$200,000 cost was funded by the FY 2015 State Diesel Emissions Reduction Act (DERA) grant. (Est. completion – 12/31/15)
- ii. Continued to review and approve, if appropriate, gasoline dispensing facility's Stage I and Stage II permit applications. (Ongoing activities)
 1. Approved 4 construction permits for 3 facilities.
 2. Approved 13 operating permits for 8 facilities.
- iii. Began to incorporate auto-body repair shop requirements of Section 15 of 7 DE Admin. Code 1138 into the operating permit for four (2 new and 2 newly identified existing) facilities. (Est. completion – 4Q15)

2015 Air Toxics Strategic Plan – Mid-year Status – Summary Report

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

b. Significant Current Activities

- iv. Continued to provide assistance consistent with the Compliance Assistance Oversight Plan to 43 facilities:
 - 1. Perchloroethylene dry cleaning facilities (22). (Ongoing activity)
 - 2. Auto-body repair shops (21). (Ongoing activity)
- v. Re-proposed the amendment of Section 36 of 7 DE Admin. Code 1124 to provide for the decommissioning of Stage II vapor recovery controls at gasoline dispensing facilities. (Est. completion – 9/30/15)
- vi. Began the adoption of a recent amendment to Federal Subpart N applicable to chromium electroplating and chromium anodizing facilities into Section 6 of 7 DE Admin. Code 1138. (Est. completion – 12/31/15)
- vii. Continued to participate with WILMAPCO and Transportation & Climate Initiative (TCI) to identify Delaware appropriate options to reduce greenhouse gases and air toxics. Current activities are focused on 1) evaluating proposed projects through WILMAPCO and on 2) developing a list of mitigation measures for consideration by the transportation sector through the TCI. (Ongoing activity)
- viii. Provided outreach support for the upcoming DAQ State Fair outreach program, which will focus on new educational materials and exhibits and will also feature DAQ's new moveable monitoring platform and a visit by "Tropo". (Est. completion – 8/1/15)

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

a. Significant Current Activities

- i. Completed five full compliance evaluations (FCEs) [out of 6 remaining FCEs scheduled for 2014-5] at facilities subject to major source HAP standards (i.e., MACT and residual risk standards). All five facilities were found to be in compliance with the major source HAP requirements. Eight FCEs were completed in 2014. (Est. completion – 9/30/15)
- ii. Completed four full compliance evaluations at facilities subject to area source HAP standards (i.e., GACT standards). The sources were found to be in compliance with the area source HAP requirements. (Est. completion – 9/30/15)
- iii. Completed 10 compliance evaluations [out of 10 scheduled for 2015] at perchloroethylene dry cleaning facilities (~16% of known facilities). (Est. completion – 9/30/15)
- iv. Completed 4 compliance evaluations [out of 14 scheduled for 2015] at auto-body repair shops (~6% of known facilities). (Est. completion – 9/30/15)

2015 Air Toxics Strategic Plan – Mid-year Status – Summary Report

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

b. Significant Current Activities - Continued

- v. Completed 52 inspections at regulated gasoline dispensing facilities (~16% of known facilities). (Est. completion – 12/31/15)
- vi. Tracked 192 vapor recovery system tests at 175 regulated gasoline dispensing facilities (~52% of known facilities). (Est. completion – 12/31/15)
- vii. Completed 13 perceptible leak tests on gasoline delivery vessels (~2% of known delivery vessels). All gasoline delivery vessels were found to be in compliance. (Est. completion – 9/30/15)
- viii. Completed 283 site inspections at asbestos demolition sites. (Est. completion – 12/31/15)
- ix. Completed initial draft of the annual I/M report, which will be finalized by 7/31/15, that incorporated the following:
 - 1. Completed semi-monthly QA/QC performance audits of the Delaware DMV’s motor vehicle technicians and emissions testing equipment.
 - 2. Analysis of Delaware Criminal Justice Information System (DELJIS) data (arrests made in 2014) to demonstrate compliance with emission testing requirements.
 - 3. Results of the most recent “remote sensing” testing program.
- x. Commenced audit of the 2015 I/M waivers issued by the Delaware DMV. (Est. completion – 1/31/16)
- xi. 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)
- xii. 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. Identified multiple partners (i.e. Nemours Foundation, WILMAPCO, American Lung Association, Air Quality Partnership, and local school districts) to collaborate with on a new anti-idling outreach and education program. See item 3.b.v.

2015 Air Toxics Strategic Plan – Mid-year Status – Summary Report

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 Mid-Atlantic Diesel Collaborative (MADC) projects through conference calls and MADC-sponsored webinars. (Ongoing activity)
 3. Participated at monthly WILMAPCO meetings for New Castle County, biannual workgroup meetings for Kent County, and scheduled meetings for Sussex County providing the Department's priorities on funding projects. (Ongoing activity)
 4. Participated on the Claymont Coalition meeting, as necessary. (Ongoing activity)
 5. Supported the Transportation & Climate Initiative. (Ongoing activity)
- ii. Continued to provide Tank Management's support and information for DAQ's re-proposal for decommissioning of Stage II systems at gasoline dispensing facility under Section 36 of 7 DE Admin. Code 1124. (Ongoing activity)
- iii. Continued to promote transit oriented design through review and providing comment on Preliminary Land Use Service (PLUS) applications, as well as the county Technical Advisory Committee process. (Ongoing activity)
- iv. Identified three potential diesel emission reduction projects for consideration/inclusion in future grant applications.
 1. Replacement of the diesel propulsion engine on a Wilmington Tug vessel with an auxiliary diesel powered electric generator (genset).
 2. Installation of a shore air system to maintain the brake system air pressure to eliminate up to 20 hours of railroad locomotive idling per day for up to 9 month period.
 3. Establishment of an anti-idling outreach campaign at Delaware schools.
- v. Began meeting with multiple partners and DAQ monitoring staff on the design and implementation of a new anti-idling outreach and educational program at K-12 schools throughout Delaware. (Ongoing activity)
- vi. Reviewed 10 federal proposals by the EPA during this period. Identified deficiencies in three of the proposals and submitted comments to the EPA on the following:
 1. The re-proposal of the aluminum sweat furnace risk and technology review standard (40 CFR Part 63 Subpart RRR) on Feb. 6.
 2. The re-proposal of the area source boiler GACT standard (40 CFR Part 63 Subpart JJJJJ) on Mar. 9.
 3. The completed petition to add n-propyl bromide to the list of Section 112(b)(1) HAPs on Mar. 9.

2015 Air Toxics Strategic Plan – Mid-year Status – Summary Report

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. All validated results were submitted to the EPA. (Ongoing activity)

b. Significant Current Activities

- i. Using the moveable monitoring platform, completed the monitoring phase of a community monitoring project on the air toxics emissions from diesel locomotives transporting crude oil to the DCR fuel unloading operation on Mar. 31. Began the analysis of collected data. (Exp. Completion – 12/31/15)
- ii. Completed design for a community monitoring project using the moveable monitoring platform to measure BTEX concentrations due to the emissions from 1) the crude oil unloading operations and 2) the marine vessel engine exhausts at the DCR crude oil unloading wharf. Monitoring phase scheduled to begin during 3Q15. (Exp. Completion – 3Q16)
- iii. In partnership with WILMAPCO and the Nemours Foundation, began initial design for a monitoring project to measure mobile source particulate associated with an anti-idling program currently under development by the partners. (Exp. Completion – 3Q16)
- iv. Utilizing the TO-17 method and the laboratory gas chromatographic mass spectrometer to collect and measure the concentrations of VOCs, including volatile HAPs, in Delaware City. (Ongoing)
- v. Scheduled the 2015 annual “remote sensing” testing in accordance with the ozone State Implementation Program for August. (Exp. Completion – 4Q15)

5. Identify the potential harm from exposure to air toxics

a. 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 the EPA’s dispersion model, AERMOD. (Ongoing activity)
- ii. Commenced investigation of the growing use of unregulated n-propyl bromide, a probable carcinogen, as an alternative to perchloroethylene by Delaware dry cleaning facilities. (Ongoing)
- iii. Continued to review and comment on EPA’s development of the 2011 National Air Toxics Assessment (NATA) program. (Exp. Completion – 1Q16)

2015 Air Toxics Strategic Plan – Mid-year Status – Summary Report

6. Gather information related to air toxics sources

a. Significant Current Activities

- i. Submitted the Underground Storage Tanks (UST) Semiannual Activities Report, which included gasoline dispensing facilities, to EPA in April. (Est. completion – 10/31/15)
- ii. Began development of the 2014 National Emissions Inventory, which will quantify VOC and significant volatile HAP emissions from point and non-point stationary sources. (Est. completion – 12/31/15)
- iii. Continued to populate the Delaware Environmental Navigator (DEN) database with new and previously unpermitted dry cleaners, auto-body repair shops, and gasoline delivery vessel owners. (Ongoing activity)
- iv. Continued to incorporate new notifications and to maintain existing active sites in the Delaware Online Asbestos Notification System (DOANS). (Ongoing activity)
- v. Continued to implement the newly developed program to collect and compile VOC emissions from Delaware auto-body repair shops. (Ongoing activity)
- vi. Began the assessment of the compiled 2014 VOC emissions from Delaware auto-body repair shops, which will be used to validate or correct the currently established emissions factors from these facilities. (Ongoing activity)

7. Continue to grow the ongoing program to address the risks from exposure to air toxics

a. Key Accomplishments

- i. Issued the Year-End Status Report for DAQ's 2014 Air Toxics Strategic Plan on March 9. This report provided year-end status of each air toxics-related activity undertaken in 2014 and summarized the key accomplishments of 2014, as well as, identify significant 2014 activities continuing into 2015. <http://www.dnrec.delaware.gov/Air/Pages/DATAS1.aspx>

b. Significant Current Activities

- i. Continued to actively participate on NACAA's air toxics, emissions inventory, mobile source, monitoring, and outreach committee programs. (Ongoing activity)

2015 Air Toxics Strategic Plan – Mid-year Status – Summary Report

7. Continue to grow the ongoing program to address the risks from exposure to air toxics

b. Significant Current Activities

- ii. 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. Transportation & Climate Initiative.
 - 2. Mid-Atlantic Regional Air Management Association.
 - 3. EPA’s SmartWay Transport Program.
 - 4. Clean Cities/States Program (Alternative Fuels).
 - 5. Ozone Transport Commission.
 - 6. NESCAUM Low/Zero Emission Vehicle Workgroups.
- iii. Initiated application process for Delaware to provide greater support for EPA’s SmartWay Transport program by becoming an Affiliate Member. (Ongoing activity)
- iv. Continued to build DAQ’s risk-based process to mitigate unacceptable air toxics impacts through the use of the field gas chromatograph and adsorption tube technology in the moveable monitoring platform at locations other than the existing stationary monitoring stations. (Ongoing activity)

8. Air toxics resources development

a. Key Accomplishments

- i. Provided permitting and compliance personnel with training opportunities through the . . .
 - 1. EPA Region 3’s briefing on the EPA’s newly updated environmental justice screening and mapping tool, EJSCREEN, on May 19.
 - 2. Mid-Atlantic Diesel Collaborative’s “Health Effects from Diesel Exhausts” on May 21.

b. Significant Current Activities

- i. Continued to implement a cooperative arrangement with Department’s Groundwater Discharge Section to share results and information gathered during each program’s inspections of auto-body repair shops. (Ongoing activity)
- ii. Identified 2 additional candidates for source information interchange and initiated development of cooperative agreements. (Ongoing activity)