

Delaware Division of Air Quality

2014

Air Toxics Strategic Plan

Mid-year Status Summary Report

(January through June 2014)



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Division of Air Quality
2014 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 2014 - 2018 ATSP, finalized on December 23, 2013, 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. Continue to grow the ongoing program to address the risks from exposure to air toxics**
- 8. Enhance DAQ Air Toxics Resources**

ACRONYMS

7 DE Admin. Code	Title 7 of the Delaware Administrative Code
AERMOD	An EPA Dispersion Model
ATSP	Air Toxics Strategic Plan
BTEX	Benzene, Toluene, Ethyl benzene, & Xylenes
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DCR	Delaware City Refinery
DELJIS	Delaware Criminal Justice Information System
DEN	Delaware Environmental Navigator
DERA	Diesel Emissions Reduction Act
DNREC	Department of Natural Resources and Environmental Control
DOANS	Delaware Online Asbestos Notification System
EPA	U. S. Environmental Protection Agency
GACT	Generally Available Control Technology
EPA	U. S. Environmental Protection Agency
HAP	Hazardous Air Pollutant, 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
MADC	Mid Atlantic Diesel Collaborative
NACAA	National Association of Clean Air Agencies
NATA	National Air Toxics Assessment
NESCAUM	Northeast States for Coordinated Air Use Management
QA/QC	Quality Assurance and Quality Control
RTR	Risk and Technology Review
SOPs	Standard Operating Procedures
TCI	Transportation & Climate Initiative
UST	Underground Storage Tank
VOC	Volatile Organic Compound
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 diesel engine replacement project on the Delaware Bay Launch Services' vessel on May 20.
- ii. Responded to four incidences of improperly disposed of asbestos containing waste; initiated and coordinated proper disposal.
- iii. Responded to 55 incidences of improperly managed projects involved with the disposal of asbestos containing waste; provided guidance to assure proper cleanup and disposal.
- iv. Incorporated the applicable MACT standard requirements into two Title V operating permits during their respective renewals on January 17 (Formosa) and April 2 (Calpine).
- v. Responded to 289 open burning requests; issued 75 approved open burning notifications.
- vi. Updated open burning information used by the Environmental Protection Officers to enforce the requirements of 7 DE Admin. Code 1113.
- vii. Completed inventory of waste incinerators and submitted a negative declaration to EPA on January 8, in lieu of submitting a State Plan applicable to commercial and industrial solid waste incineration units under 40 CFR Part 60 Subpart DDDD.
- viii. Completed research into amending Section 36 of 7 DE Admin. Code 1124 to provide for the decommissioning of Stage II vapor recovery controls at gasoline dispensing facilities and to establish alternate requirements to ensure gasoline dispensing facilities are well controlled.
- ix. Conducted educational outreach programs on the proper removal and disposal of asbestos for the . . .
 1. Delaware Building Officials Association in Wilmington on February 25.
 2. Lower Delaware and Maryland Building Officials Association in Georgetown on May 15.
- x. Completed public outreach through the development and implementation of an air quality-themed educational program, including competitive activities, which targeted high school students who participated in the 2014 Envirothon on April 11.
- xi. Completed a major branding activity by presenting the following two DAQ themes in the messaging on the exterior wrap of the Moveable Monitoring Platform.
 1. "Monitoring the Air Because We Care".
 2. "Blue Skies Now and Tomorrow".
- xii. Identified grant funding to install a vehicle wrap with DAQ's branded message designs on the exterior of the Moveable Monitoring Platform.

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

a. Key Accomplishments - Continued

- xiii. While working with the Air Quality Partnership on the character branding project to communicate an air quality message targeted to elementary school students during 1Q14. . .
 - 1. The contractor completed the character “Tropo” and the skit for the future performances.
 - 2. “Tropo” debuted at the Air Quality Awareness event at Rodney Square in Wilmington on April 22 and at the Dover Days event on May 3.
- xiv. Completed an initial major reorganization and redesign of the DAQ’s web sites, which includes air toxics, mobile sources, stationary sources and area sources. (Updating and Maintenance is ongoing)

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)
 - 1. Approved 8 construction permits for 6 facilities.
 - 2. Approved 12 operating permits for 8 facilities.
- ii. Began to incorporate auto-body repair shop requirements of Section 15 of 7 DE Admin. Code 1138 into the operating permit for two newly identified existing facilities. (Est. completion – 3Q14)
- iii. Began to incorporate perchloroethylene dry cleaning requirements of Section 5 of 7 DE Admin. Code 1138 into the operating permit for one new facility. (Est. completion – 3Q14)
- iv. Continued to provide assistance consistent with the Compliance Assistance Oversight Plan to 140 facilities:
 - 1. Perchloroethylene dry cleaning facilities (62). (Ongoing activity).
 - 2. Auto-body repair shops (78). (Ongoing activity).
- v. Continued amending 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 – 4Q14)
- vi. Began working on the adoption of the Federal Sub VVVVVV area source requirements applicable to chemical manufacturing facilities into 7 DE Admin. Code 1138, when the adoption of Subpart CCCCCC was put on hold, see item 1.c.i. (Est. completion – 2015)
- vii. Participated with WILMAPCO and Transportation & Climate Initiative (TCI) in planning of the upcoming “Freight Management Summit”. (Est. completion – 8/6/14)
- 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 visits by “Tropo”. (Est. completion – 7/26/14)

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

c. Pending

- i. DAQ planned to amend the gasoline dispensing facility Stage I and Stage II vapor recovery requirements found under Sections 26 and 36 of 7 DE Admin. Code 1124, respectively, simultaneously as both sections were applicable to the same regulatory community. Following several of the initial Stage II workgroup meetings, DAQ determined that the benefits expected from conducting simultaneous amendments for the common regulatory community were far outweighed by the added complexities of amending of Stage I and Stage II simultaneously. As the amendment of Stage II had a higher priority, DAQ decided to put the following Stage I regulatory actions ON HOLD until after the amendment of Stage II is complete.
 1. Adopt the Federal Sub CCCCCC area source requirements applicable to Stage I gasoline dispensing facilities that dispense gasoline to motor vehicles or engines into Sections 26 and 27 of 7 DE Admin. Code 1124.
 2. Adopt the Federal Sub CCCCCC area source requirements applicable to Stage I gasoline dispensing facilities that dispense gasoline only to nonroad vehicles or engines into Section 18 of 7 DE Admin. Code 1138.

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

a. Key Accomplishments

- i. Completed the development and began implementation of the data gathering and compliance determination procedures using DELJIS information to demonstrate the effectiveness of the inspection and maintenance (I/M) enforcement program under the mobile source State Implementation Plan.
- ii. Completed a thorough review of the three internal standard operating procedures (SOPs) for issuing Tank Management permits and revised the SOPs to . . .
 1. Establish smoother paper flow through the approval process.
 2. Ensure timely processing.
 3. Maintain the integrity of the permit database.

b. Significant Current Activities

- i. Completed two [of 14 scheduled for 2014-5] full compliance evaluations at facilities subject to major source HAP standards (i.e., MACT and residual risk standards). Both facilities were found to be in compliance with the major source HAP requirements. (Est. completion – 9/15)

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

b. Significant Current Activities - Continued

- ii. Completed one [of 30 scheduled for 2014-5] full compliance evaluations at facilities subject to area source HAP standards (i.e., GACT standards). The source was found to be in compliance with the area source HAP requirements. (Est. completion – 9/15)
- iii. Completed 13 [of 26 scheduled for 2014] compliance evaluations at perchloroethylene dry cleaning facilities (~25% of known facilities). (Est. completion – 9/14)
- iv. Completed 3 [of 65 scheduled for 2014] compliance evaluations at auto-body repair shops (~2% of known facilities). (Est. completion – 9/14)
- v. Completed 65 inspections at regulated gasoline dispensing facilities (~19% of known facilities). (Est. completion – 12/14)
- vi. Tracked 210 vapor recovery system tests at 184 regulated gasoline dispensing facilities (~54% of known facilities). (Est. completion – 12/14)
- vii. Completed 16 perceptible leak tests on gasoline delivery vessels (~2% of known delivery vessels). All gasoline delivery vessels were found to be in compliance. (Est. completion – 9/14)
- viii. Completed 245 site inspections at asbestos demolition sites. (Est. completion – 12/14)
- ix. Completed semi-monthly QA/QC performance audits of the Division of Motor Vehicle's motor vehicle technicians and emissions testing equipment during this period and completed the initial draft of the annual I/M report in June. (Est. completion – 7/14)
- 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)
- xi. 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. Submitted 2014 Diesel Emissions Reduction Act (DERA) grant application on April 21; funding to be available on October 1.

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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 meeting, when needed. (Ongoing activity)
 6. Supported the Transportation & Climate Initiative. (Ongoing activity)
- ii. Continued to provide Tank Management support and information for DAQ's regulatory activity for decommissioning of Stage II systems at gasoline dispensing facility through ongoing regulatory workgroup participation, as well as, participating in vendor review meetings. (Ongoing activity)
- iii. Continued to promote transit oriented design through review and providing comment on Preliminary Land Use Service (PLUS) applications. (Ongoing activity)
- iv. Continue to follow Ozone Transport Commission model rule development for aftermarket catalytic converters and heavy duty-diesel inspection and maintenance programs. (Est. completion – 2015)
- v. Began review of the newly proposed residual risk and technology review (RTR) standards applicable to petroleum refineries (40 CFR Part 63 Subparts CC and UUU) in June. (Est. completion - 3Q14)

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)
- ii. Completed the installation of a field gas chromatograph in the Moveable Monitoring Platform in March for the measurement of BTEX concentrations at locations other than the existing stationary monitoring stations.

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

b. Significant Current Activities

- i. Commenced development of a special project using the Moveable Monitoring Platform to measure air toxics (BTEX) concentrations in a Delaware City community in the vicinity of DCR's fuel unloading operations. (Exp. Completion – 2015)
- ii. Commenced development of the final monitoring contract for continued “remote sensing” studies in accordance with the ozone State Implementation Program. (Ongoing activity)

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 AERMOD. (Ongoing activity)
- ii. Began to follow EPA's development of the 2011 National Air Toxics Assessment (NATA). (Exp. Completion – 2Q15)
 1. Identified and communicated Delaware errors in the EPA's preliminary stationary source emissions inventory in March.

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 – 10/14)
- ii. Continued to make significant progress in populating DEN database with new and previously unpermitted dry cleaners, auto-body repair shops, and gasoline delivery vessel owners. (Ongoing activity)
- iii. Continued to incorporate new notifications and to maintain existing active sites in the Delaware Online Asbestos Notification System (DOANS). (Ongoing activity)
- iv. Commenced a new program to collect and quantify VOC emissions from Delaware auto-body repair shops; annual compiled emissions will be used to validate or correct the currently established emissions factors. (Ongoing activity)

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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 2013 Air Toxics Strategic Plan on March 17. This report provided year-end status of each air toxics-related activity undertaken in 2013 and summarized the key accomplishments of 2013, as well as, identify significant 2013 activities continuing into 2014.
- ii. Continued to build the monitoring infrastructure needed to implement DAQ's risk-based process to mitigate unacceptable air toxics impacts with installation of a field gas chromatograph in the Moveable Monitoring Platform in March for the measurement of BTEX concentrations at locations other than the existing stationary monitoring stations.

b. Significant Current Activities

- i. Continued to actively participate on NACAA's air toxics, emissions inventory, mobile source, modeling, monitoring, and outreach committee programs. (Ongoing activity)
- 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. 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. Attended 2014 EPA Modelers Workshop over May 19 to 22 in Salt Lake City.

b. Significant Current Activities

- i. Continued to implement 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. (Ongoing activity)