

**Delaware  
Air Quality  
Management**

**2009**

**Air Toxics Strategic Plan**

**Mid-year Status**  
(January through June 2009)

**Summary Report**

**Delaware**  
**Air Quality Management**  
**2009 Air Toxics Strategic Plan**

**The Air Toxics Strategic Plan (ATSP) is a five-year plan of activities to be undertaken by Air Quality Management and other DNREC agencies to reduce the risk of adverse health effects caused by the inhalation of air toxics. The 2009 ATSP, finalized on 12/31/08, has been organized within the following framework.**

- **Implement and grow an ongoing program to address the risks from exposure to air toxics**
- **Build a greater understanding of ambient air toxics 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 AQM Air Toxics Resources**

## **2009 Air Toxics Strategic Plan – Mid-year Summary Status**

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

#### **Key Accomplishments**

- Awarded 105 grants and reserves totaling \$3.5 million, through the Delaware Energy Office, for implementation of renewable and advanced energy technologies programs. (Completed – 6/09)
- Requested delegation of Delaware’s newly adopted area source standard for hospital ethylene oxide sterilizers (Section 9 of Reg. 1138) in lieu of the Federal standard at 40 CFR Part 63 Subpart WWWW. (Completed – 6/09)
- Requested delegation of Delaware’s newly adopted area source standard for lead acid battery manufacturing plants (Section 11 of Reg. 1138) in lieu of the Federal standard at 40 CFR Part 63 Subpart PPPPP. (Completed – 6/09)
- Completed installation of 19 Red Clay School District diesel bus retrofits. (Completed – 1/09)
- Completed an adoption of the area source hospital ethylene oxide sterilizer standard (Section 9 of Reg. 1138). The newly adopted requirements are more public health protective than a similar national standard. (Completed – 2/09)
- Completed training and certification of 2 more class of “Energy Auditors” for the Home Performance with Energy Star Program. (Completed – 6/09)

#### **Significant Current Activities**

- Completed 11 of the 18 full compliance evaluations (FCEs) for the major source air toxics facilities covered in the 2008/2009 Compliance Monitoring Plan. (Est. completion – 9/09)
- Completed 9 of the 11 FCEs for the area source air toxics facilities planned during the 2008/2009 period. (Est. completion – 12/09)
- Completed 19 of the 20 compliance evaluations for perchloroethylene dry cleaning facilities planned for 2009. (Est. completion – 12/09)
- Completed 33 of the 40 consultations for auto body shops planned for 2009 to provide compliance assistance information on a recently promulgated federal regulation. (Est. completion – 12/09)
- Completed 76 of the 120 inspections for gasoline dispensing facilities planned for 2009. (Est. completion – 12/09)
- Completed 171 of 358 vapor recovery tests for gasoline dispensing facilities planned for 2009. (Est. completion – 12/09)
- Completed 80 perceptible leak tests on gasoline delivery vessels; this exceeded the 60 planned tests for 2009. (Ongoing Activity)
- Implementing the grant received to install diesel retrofits and heavy duty diesel engine replacement on non-road diesel equipment at the Port of Wilmington. (Est. completion – 12/09)
- Implementing the grant received for installation of a truck stop electrification project at the Smyrna Rest Stop. (Est. completion – 2010)
- Incorporating area source air toxics standard requirements into Delaware air permits
  - Incorporating hospital ethylene oxide sterilizer requirements in Section 9 of Regulation 1138 into Christiana Care Regulation’s 1102 construction permit. (Est. completion – 12/09)
  - Incorporating electric arc furnace and iron/steel foundry standard requirements in 40 CFR Part 63 Subparts YYYYY and ZZZZZ, respectively, during the renewal of Claymont Steel’s Title V permit. (Est. completion – 12/09)
  - Completed case-by-case MACT determination, incorporating PVC MACT requirements, and issued the proposed Formosa Plastics Title V permit. (Est. completion – 7/09)

## **2009 Air Toxics Strategic Plan – Mid-year Summary Status**

### **• Implement appropriate actions to reduce the harm from exposure to air toxics – Continued**

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

- Continuing to assist small business by promoting programs and improving communications with the Department. Through June 2009, facilitated through telephone and personal visits the following. (Ongoing activities)
  - Provided assistance to 4 newly pledged marinas in preparing the Operating a Maintenance Plans under the Clean Marina program.
  - Updated the asbestos educational, including addition of a Spanish translation, and distributed the information through a variety of medium.
    - The Governor’s Entrepreneurial Business Conference on 6/5.
    - Local and county governmental agencies.
    - The Delaware Contractors Association.
    - DAWM Environmental Crime Unit
  - Participated in the Public Workshop for the proposed adoption of a new area sources standard applicable to plating and polishing operations on 6/9.
  - Completed the Regulatory Advisory Service consultation for a potential new business subject to two air toxics standards, Sections 6 and 10 of Regulation 1138.
- Adopting new requirements applicable to area source plating and polishing operations (Section 10 to Reg. 1138) that are based on existing federal requirements (40 CFR Part 63 Subpart WWWW). (Est. completion – 11/09)
- Continuing to distribute the revised compliance calendar to new and existing perchloroethylene dry cleaning facilities. (Est. completion – 9/09)
- Continuing to provide compliance assistance to gasoline delivery fleet owners in meeting annual testing and permitting requirements. (Ongoing activity)
- Commenced adoption of three separate area source air toxics standards under Regulation 1138, in lieu of one all encompassing standard similar to the federal “Paint Stripping and Miscellaneous Surface Coating standard” (40 CFR Part 63 Subpart HHHHHH).
  - Section 13 applicable to paint stripping operations. (Est. completion – 12/10)
  - Section 14 applicable to miscellaneous parts or products surface coating operations. (Est. completion – 3/10)
  - Section 15 applicable to motor vehicle and mobile equipment surface coating operations. (Est. completion – 12/10)
- Completed infrastructure development and commencing on initial program release of the Delaware Sustainable Energy Utility. (Ongoing activity)
- Provided energy conservation educational information and showcased the alternative fuel vehicle at the Great Green Expo on 3/21. (Ongoing activity)
- Provided school bus anti-idling outreach at Woodside Farm Creamery’s Day of the Farm” on 5/30. (Ongoing activity)
- Commenced working with EPA Region 3 to develop educational programs promoting the implementation of the SmartWay Transport programs. (Ongoing activity)

## **2009 Air Toxics Strategic Plan – Mid-year Summary Status**

- ***Implement appropriate actions to reduce the harm from exposure to air toxics – Continued***

### **Pending**

- The adoption of federal area source standards applicable to gasoline distribution facilities (40 CFR Part 63 Subparts BBBBBB and CCCCCC) have been postponed until 2010, due to a higher priority assigned to the adoption of area sources standards applicable to surface coating of miscellaneous parts and products and plating and polishing operations (40 CFR Part 63 Subparts HHHHHH and WWWWWW). (Est. completion – 2011)
- Implementation of DATAS Phase II communication and outreach plan and related activities are on hold pending completion of the DATAS Phase II project. (Est. completion – 2010)

## **2009 Air Toxics Strategic Plan – Mid-year Summary Status**

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

#### **Key Accomplishments**

- Issued the 2008 AQM Air Toxics Strategic Plan Year-End Status Report on February 23, 2009. This report summarized the key accomplishments during 2008 and identified the significant ongoing activities going into 2009. (Completed – 2/09)
- Finalized the most appropriate regulatory strategy for Delaware’s adoption of the federal “Paint Stripping and Miscellaneous Surface Coating standard” (40 CFR Part 63 Subpart HHHHHH) that will affect over 200 Delaware sources. The cross-Departmental representation recommended separating the federal standard into three separate area source air toxics standards under Regulation 1138. (Completed – 2/09)
- Provided technical updates to Mid-Atlantic Regional Air Management Association (MARAMA) for their March 2009 “HON/MON” MACT Workshop. (Completed – 2/09)

#### **Significant Current Activities**

- Actively participating on NACAA air toxics committee and supporting MARAMA’s air toxics programs. (Ongoing activity)
- Continuing to encourage and support marinas to obtain certification on a case-by-case basis. This activity promotes the adoption of voluntary management practices to prevent pollution at marinas. (Ongoing activity)
- Continuing to encourage and support Delaware lodging businesses. This activity promotes the adoption of voluntary management practices to prevent pollution in the hospitality industry. (Ongoing activity)
- Actively participating in local, regional, and national committees, including the following, to identify energy issues, develop strategies/solutions, and implement Delaware’s Energy Program. (Ongoing activity)
  - Clean State Program (Alternative Fuels)
  - National Association of State Energy Officials (NASEO)
  - Delaware Tech Leadership in Energy and Environmental Design (LEED) Board of Directors

#### **Pending**

- EPA Region 3’s Claymont Industrial Partnership Initiative to identify voluntary measures to reduce air toxics from both stationary and mobile sources in the Claymont area continues to be inactive during the period. (Estimated restart – Unknown)

## **2009 Air Toxics Strategic Plan – Mid-year Summary Status**

### **• *Build greater understanding of ambient air toxics environment***

#### **Key Accomplishments**

- Monitoring of air toxics continued at the Wilmington [carbonyls 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)

#### **Significant Current Activities**

- Continuing the "Community Air Toxics Study" monitoring project 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. (Est. completion – 12/09)
- Continuing to provide support for the University of Delaware's special project on near real time organic aerosol speciation at Wilmington monitoring station. This data will provide greater insights on the temporal variation of selected HAP concentrations compared to the existing HAP monitoring results at Wilmington monitoring station. (Ongoing activity)

### **• *Identify potential harm from exposure to air toxics***

#### **Key Accomplishments**

- Coauthored and presented at a technical paper on use of Sub-Grid Scale Variability (SGV) in short and long term exposure assessments at the American Meteorological Society Annual Meeting. (Completed – 1/09)

#### **Significant Current Activities**

- Continuing to revise emissions inventory and modeling for the DATAS Phase II project based on results of the initial quality assurance review. (Est. completion – 12/09)
- Initiated development of the methodology for incorporation of final DATAS Phase II results into Geographic Information Systems (GIS). (Est. completion – 2010)
- Preparing a research paper on SGV applications for inclusion in a peer reviewed journal. (Est. completion – 12/09)

#### **Pending**

- Evaluation of the impact of the DATAS Phase II risk assessment results on various AQM programs were delayed pending completion of the DATAS Phase II project. (Est. completion – 2010)

## **2009 Air Toxics Strategic Plan – Mid-year Summary Status**

### **• Gather information related to air toxics sources**

#### **Key Accomplishments**

- Monitoring of air toxics continued at the Wilmington [carbonyls and volatile HAPs] and Delaware City [volatile HAPs] monitoring stations. These air toxics monitoring data are being used to identify and track air toxics status and trends. (Ongoing activity)
- Completed review of inventory for several pollutants that appeared to produce unexpected results in the modeling of the DATAS Phase II project. Identified several inventory errors and resubmitted corrected inventory of remodeling. (Completed – 5/09)
- Completed the 2008 national emissions inventory protocols. (Completed – 5/09)
- Submitted the April UST Semiannual Activities Report to EPA. (Completed – 4/09)

#### **Pending**

- Development of the source apportionment information for air toxics emissions has been delayed pending completion of the DATAS Phase II project. (Est. completion – 2010)

## 2009 Air Toxics Strategic Plan – Mid-year Summary Status

### • **Identify options for reducing air toxics in the environment**

#### Key Accomplishments

- Submitted a grant application for diesel retrofits through Mid Atlantic Diesel Collaborative. The project will reduce diesel particulate emissions from mobile equipment. (Delaware was not awarded a grant). (Completed – 3/09)
- Submitted and awarded an American Recovery and Reinvestment Act grant. (Completed – 4/09)  
The grant funding will be used for
  - Additional school bus diesel retrofits
  - Smyrna Rest Area truck stop electrification
  - Fort Delaware alternative power
  - City of Wilmington heavy diesel engine retrofits
- Identified path forward for implementing the case-by-case MACT determination for the vacated Boiler MACT standard in Delaware. (Completed – 5/09)
- Completed identification of Delaware sources potentially affected to the planned adoption of Section 14 of Regulation 1138 applicable to surface coating operations that spray apply coating to miscellaneous metal and/or plastic parts or products. (Completed – 6/09)

#### Significant Current Activities

- Participating with WILMAPCO and DeIDOT on developing 8-hour conformity determinations. Recommended the use revision to the conformity determination, which were subsequently made. (Ongoing activity)
- Reviewed and made significant comments during update of Preliminary Land Use Service (PLUS) Application. (Ongoing activity)
- Continuing to participate in the Claymont Community Coalition, as needed. (Ongoing activity)
- Initiated outreach activities in the communities near the Port of Wilmington. (Ongoing activity)
- **New activity.** Initiated participation with MARAMA and EPA Region 3 to develop an outreach program for the Clean Diesel Campaign. (Est. completion – 12/09)

#### Pending

- A number of air toxics activities ranging from outreach to identification of mobile source “hot spots” are on hold pending completion of the DATAS Phase II project. (Est. completion – 2010)
- Three EPA area source standards proposed during this period were not reviewed and commented upon, as resources were directed to higher priority activities. These three standards were applicable to area source reciprocating internal combustion engines, paint and allied products manufacturing, and non-ferrous foundries.

## **2009 Air Toxics Strategic Plan – Mid-year Summary Status**

- ***Evaluate the effectiveness of the actions taken to reduce harm from exposure to air toxics***

### **Key Accomplishments**

- Monitoring of air toxics continued at the Wilmington [carbonyls 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)

### **Significant Current Activities**

- Initiated discussion for additional reductions of multi-pollutants (including mercury) from electrical generation units less than 25 MW. (Est. completion – 2010)

### **Pending**

- Development of the source apportionment information for air toxics emissions has been delayed pending completion of the final DATAS Phase II project. (Est. completion – 2009)

- ***Air toxics resources development***

### **Key Accomplishments**

- Delaware's air toxics modeler completed review of New Jersey study addressing personal risk exposure and co-authored a technical paper, based on this information, which was published in the May 2009 "Atmospheric Environment". (Completed – 5/09)

### **Significant Current Activities**

- Establishing the communications and personnel resources needed to participate in the new series of federal air toxics related "Webinars", which have been developed. Delaware, as with many other state and local agencies, faces travel restrictions for training programs. (Ongoing activities)