ACTION PLAN
DENKA PERFORMANCE ELASTOMER, LLC – PONTCHARTRAIN FACILITY
(formerly the DUPONT NEOPRENE FACILITY, PONTCHARTRAIN WORKS)
LaPlace, St. John the Baptist Parish, Louisiana
June 2016

On December 17, 2015, the US Environmental Protection Agency (EPA) released its 2011 National Air Toxics Assessment (NATA). EPA developed NATA as a tool for EPA and state/tribal/local agencies to prioritize the evaluation of air pollutants and emission sources in locations of interest to gain a better understanding of risks. The NATA is conducted periodically, approximately every three years, as a national, broad-scale screening analysis of the risks associated with breathing air toxics. EPA uses measured or estimated emissions data reported by sources, states, and others to assess the air toxics. EPA may use NATA to determine areas across the country where more information is needed. In reviewing the 2011 NATA data, there are a few areas of the country where NATA estimates for certain industries suggest potential, but not confirmed actual, elevated health risks. More detailed assessments are needed in these areas to accurately characterize any potential health risks or hazards.

The 2011 NATA suggests that estimated cancer risks in several census tracts in the vicinity of LaPlace, St. John the Baptist Parish, Louisiana, require further evaluation. The estimated risks in the area are driven by chloroprene emissions.[1] Based on 2011 emission estimates reported in the Louisiana Department of Environmental Quality (LDEQ) emissions inventory, the Denka Performance Elastomer, LLC (DPE) – Pontchartrain Facility is the only facility in St. John the Baptist Parish with chloroprene emissions.

Since the NATA is a screening assessment, it is subject to limitations in the data, modeling, and default assumptions used. As a result, the NATA should only be used to identify areas for further investigation and not to identify actual exposures and associated risks to specific individuals. Therefore, EPA will collect and evaluate additional site-specific information in St. John the Baptist Parish to quantify actual emissions rates, evaluate potential human health risk, and determine what level of emission reductions may be needed. This information will be collected through written information requests, ambient air sampling, and inspections of the DPE –Pontchartrain facility. EPA is working with state agencies, health departments, congressional representatives, local officials, community leaders, DuPont, and DPE – Pontchartrain Facility on next steps.

This Action Plan is prepared to inform interested parties and report the status of activities planned and in-progress to address the NATA data, chloroprene emissions from the DPE – Pontchartrain Facility, and community concerns about these emissions.

I. AIR

- LDEQ Pontchartrain Works Air Permits – The permits consist of three operating units that emit chloroprene (the Chloroprene, the Neoprene and the Hydrochloric Acid (HCl) Recovery Units) and two support units (the Utilities and the Diamine Units). The Chloroprene Unit currently operates under title V operating permit 3000-V5 issued September 9, 2014; the Neoprene Unit operates under permit 2449-V8 issued June 15, 2015; and the HCL Recovery Unit operates under permit 206-V3 issued June 18, 2015.

  The total permitted chloroprene emissions allowed across the various permits exceed 175 tons per year (tpy), with the majority of emissions emanating from emission units in the neoprene (85% of permitted

[1] After the 2005 NATA was issued, chloroprene was designated as a likely carcinogen (previously it had been designated as a non-carcinogen).

site-wide total) and the chloroprene (14% of site-wide total) production areas. Actual site-wide emissions of chloroprene were reported as approximately 125 tpy in reporting year 2013. The operating permits must be renewed every five years. As of May 18, 2016, there are no pending permit actions. LDEQ expects to receive a renewal application for the Chloroprene Unit Title V operating permit by October 26, 2016, because the expiration date of the operating permit is April 26, 2017. EPA expects that, under this scenario, LDEQ will potentially take action in early 2017 to renew the Chloroprene Unit operating permit. Contact: Jeff Robinson, EPA Region 6

- Challenges to the Pontchartrain Works Permits – On October 11, 1996, DuPont requested authorization for the modification of the chloroprene synthesis process by replacing the existing reactors with a then new DuPont-developed reactor process that would increase the conversion rate of raw materials in the reaction step to chloroprene, save raw material, reduce waste considerably, and reduce Volatile Organic Compounds (VOC) emissions by 30%. The project was not subject to Prevention of Significant Deterioration (PSD) review due to the emissions reductions claimed.

  Draft permit 3000-V0 went to public notice on August 25, 2001. The Louisiana Environmental Action Network (LEAN) submitted comments to which LDEQ responded by obtaining additional information from DuPont for the record, and extending the comment period to December 5, 2001, the date when a public hearing would also be held on the project. No member of the public attended the hearing.

  The EPA did not object to the proposed permit within its 45-day review period that began concurrently with the public notice period. On November 13, 2001, LEAN formally petitioned the Administrator to object to the permit, even though the public comment period had not yet ended. In its petition, LEAN argued that LDEQ did not properly address the control of chloroprene emissions from the chloroprene reactor condenser vent (emission point 1110-04). LEAN claimed that the LDEQ had misinterpreted the applicable rule under 40 CFR §63.115 resulting in a proposed allowable emissions rate of over 18 tpy of chloroprene, rather than 1 tpy had the emissions been properly controlled. The permit was issued by the LDEQ on May 7, 2002, without EPA resolution of the petition request. Construction on the new reactor began in early 2003.

  On May 9, 2003, DuPont applied to modify the Neoprene and Chloroprene Units title V permits (2249-V1 and 3000-V0 respectively) to accommodate the synthesis of a new raw material to produce elastomers using the same equipment, and to implement further changes arising from the construction and operation of the new reactor system. LEAN again commented on chloroprene-related emissions control for these processes, as at the time, the final response to the unresolved petition had not been issued. The public comment period ended, and LDEQ held the hearing on the modifications in October 2003.

  On November 20, 2003, the EPA Administrator issued an order denying the petition to object to permit 3000-V0 for the Chloroprene Unit. In the Order, the Administrator found that: (1) EPA agreed with LDEQ's interpretation of 40 CFR 63.115 against that which LEAN put forward; (2) LDEQ's interpretation was consistent with Section 112 of the Clean Air Act (CAA); and (3) LEAN had misinterpreted the regulatory requirements.

  On December 19, 2003, LDEQ concurrently issued modifications for Neoprene Unit permit number 2249-V2, Chloroprene Unit permit 3000-V1, and the response to the comments. EPA did not object to the permit modifications, and no further comments or petitions were submitted in response to the issued permits. The Chloroprene Unit Title V operating permit has been modified and/or renewed several times since its original issuance in 2002, and the permit is currently issued as version 5 (Permit 3000-V5). Contact: Jeff Robinson, EPA Region 6

- Meeting with the Companies – On May 17, 2016, EPA visited DPE – Pontchartrain Facility and DuPont in LaPlace to discuss site operations, emissions testing, and possible actions to mitigate the impact on the community. EPA may request in-depth information on DPE – Pontchartrain Facility's processes and controls and ask DPE – Pontchartrain Facility to conduct source testing directly from stacks and vents. Contact: Penny Lassiter, EPA, Office of Air Quality Planning and Standards (OAQPS)

- Air Monitoring – In a collaborative effort, EPA and LDEQ deployed VOC sampling canisters to collect ambient air samples in the LaPlace community from March 1 through March 10, 2016. Sample locations included the Lady of Grace School, Fifth Ward Elementary School, East St. John's High School, Ochsner River Parish Hospital, and on the nearby levee. Preliminary laboratory data showed that chloroprene was detected in ambient air samples in the neighborhood sampling locations. Additionally, LDEQ collected grab air samples and analyzed them on their Mobile Air Monitoring Laboratory (MAML). Like the ambient air monitoring done with the canisters, the LDEQ air grab samples analyzed in the field using MAML showed detected chloroprene in the neighborhoods. The EPA 24-hour samples showed concentrations of chloroprene ranging from below detection limit to 2.94 micrograms per cubic meter (ug/m^3).

  On May 6, 2016, DPE – Pontchartrain Facility provided a facility air monitoring plan to LDEQ for review. The Facility proposed fenceline monitoring for chloroprene at three locations. On May 27, 2016, LDEQ provided comments on the monitoring plan and required that DPE – Pontchartrain Facility submit a revised plan. Contact: Frances Verhalen, EPA Region 6

  Because the March 2016 sampling results detected ambient air chloroprene levels over the short term, EPA began additional chloroprene monitoring in the neighborhoods surrounding the DPE – Pontchartrain Facility to evaluate long-term risk concerns. In May 2016, EPA began air canister sampling at six locations in the neighborhoods surrounding the, DPE – Pontchartrain Facility. EPA plans to collect samples for at least 180 days. The current sampling schedule is once every three days. The additional ambient air results will provide EPA with information regarding short- and long-term risk from chloroprene in ambient air. Specific information about the monitoring, including the Sampling and Analysis Plan, maps of the sampling locations, and sample results may be viewed on EPA's LaPlace, St. John the Baptist Parish, Louisiana webpage. Contacts: Jeff Yurk and Ruben Casso, EPA Region 6

- Air Dispersion Modeling – EPA conducted dispersion modeling in January 2016 to refine the screening results from the 2011 NATA analysis. EPA will continue to refine the dispersion modeling utilizing any available emissions measurement, local scale meteorological data, and ambient sampling data to help identify the likely specific sources and processes contributing to elevated risk levels. This information will inform the agency for any potential emissions mitigation efforts.

  DPE – Pontchartrain Facility also intends to perform dispersion modeling of chloroprene emissions to evaluate potential ambient impacts in the surrounding community. DPE – Pontchartrain Facility provided a dispersion modeling plan to LDEQ on May 6, 2016, for approval. On May 27, 2016, LDEQ provided comments on the modeling plan and required that DPE – Pontchartrain Facility submit a revised plan. Contact: Jeff Yurk, EPA Region 6

II. WATER

- UIC Waiver/No Migration Petition – On October 22, 2015, the EPA approved DuPont's request for the reissuance of an exemption to the land disposal restrictions for underground injection control Wells 4, 7, and 8 at the Pontchartrain Works in LaPlace, Louisiana. The land disposal restrictions prohibit the injection of hazardous waste unless a petitioner can demonstrate to EPA, to a reasonable degree of certainty, that there will be no migration of hazardous constituents from the injection zone for as long as the wastes remain hazardous. The land disposal restrictions for injection wells codified in 40 CFR Part 148 provide the standards and procedures by which petitions to dispose of an otherwise prohibited waste by injection will be reviewed and by which exemptions pursuant to these petitions will be granted or denied. Part 148 also provides for the reissuance of an exemption, if the reissuance complies with the above standards. In a letter dated August 13, 2015, EPA informed DuPont that EPA was proposing to approve its petition reissuance request for an exemption to the land disposal restrictions. The public comment period for this decision began August 19, 2015 and closed on October 5, 2015. No comments were received. Based on a detailed technical review of the petition reissuance request and support documents, EPA determined that this information for the Pontchartrain Works met the requirements of 40 CFR Part 148 by demonstrating that, to a reasonable degree of certainty, there will be no migration of hazardous constituents from the injection zone for 10,000 years. Contact: James Brown, EPA Region 6

- Louisiana Wastewater Discharge Permit for DuPont – The Louisiana wastewater discharge permit, LA0005924 (AI No. 38806), was issued January 31, 2013 to E.I. DuPont de Nemours & Co. The permit was effective on March 1, 2013, and expires February 28, 2018, five years after the effective date. EPA did not object to the permit. Permitted Outfall 001 (process wastewater) discharges to the Mississippi River (070301) and Outfalls 002-007 discharge to Lake Maurepas (040602) which is in the Lake Pontchartrain Basin. While the permit does not set limits for chloroprene in the effluent, the permit contains monthly average (1.09 pounds (lbs)/day) and daily maximum (4.36 lbs/day) mass limitations for chlorobutadiene at Internal Outfall 101 which discharges via Outfall 001. The chlorobutadiene limitations were established based on best professional judgment using the concentration guideline limits for dichloropropylene and 1,2-dichloropropane since chlorobutadiene is known to have a similar response to physical and biological treatment as these pollutants.

  Outfall 001 also has permit requirements for biomonitoring. Process wastewater and process area stormwater from the Neoprene unit are collected and routed to the wastewater treatment plant. Under normal conditions, process wastewater and process area stormwater from the Chloroprene Unit, which includes the crude acid co-polymer resin manufacturing unit, the Hydrochloric ACR, and the Organic Diamines/Specialty Chemicals Unit, is routed to the Resource Conservation and Recovery Act (RCRA) waste treatment facilities for underground injection via permitted disposal well and is not discharged to surface waters. In February 2014, LDEQ approved the permittee's request for a biomonitoring frequency reduction since there had been no reported toxicity failures. Contact: Kay Schwab, EPA Region 6

III. ENFORCEMENT

- Inspection and Enforcement History – Currently, the facility is not listed in Significant Non-Compliance under the Clean Water Act (CWA) or RCRA, or as a High Priority Violator under the CAA. On January 22, 2015, the EPA conducted a Partial Compliance (off-site) inspection under the CAA. The State conducted CWA inspections on September 29, 2011 and December 20, 2013, and CAA Full Compliance Evaluations on June 16, 2011 and December 18, 2012. In addition, the State conducted 11 Title V CAA Receipt/Reviews, and a CAA Stack Test on October 23, 2013. Enforcement History includes two State CWA non-penalty orders issued on November 23, 2010 and May 13, 2011. EPA did

not take or have any outstanding enforcement actions during this timeframe. Contact: Margaret Osbourne, EPA Region 6

- On December 18, 2015, EPA issued information requests to E.I. du Pont de Nemours and Company and Denka Performance Elastomer, LLC to obtain information necessary to determine compliance with the CAA, the emissions inventory requirements of the Louisiana State Implementation Plan, and the facility permit for the former DuPont, Pontchartrain Works facility, now the DPE – Pontchartrain Facility, in LaPlace, Louisiana. EPA received the last of the information from DPE – Pontchartrain Facility and DuPont during the week of March 14, 2016. EPA is currently reviewing this information. Contact: Margaret Osbourne, EPA Region 6

- Occupational Safety and Health Administration (OSHA) – EPA has informed OSHA of the release of the NATA and shared the updated cancer information. Contact: Steve Thompson, EPA Region 6

- During the week of June 6, 2016, the EPA and LDEQ conducted an on-site compliance inspection at the facility. Contact: Steve Thompson, EPA Region 6

IV. PROPERTY ACQUISITION

- Pontchartrain Works – In December 2014, the Japanese companies Denka and Mitsui formed a joint venture called Denka Performance Elastomer, LLC (DPE). According to DPE, it purchased the DuPont Neoprene Facility, known as the Pontchartrain Works. Under DPE's ownership, it is now called the DPE - Pontchartrain Facility. The sale was finalized on November 1, 2015. Contact: Brad Toups, EPA Region 6

V. HEALTH

- Louisiana Department of Human Health – The Louisiana Department of Health and Hospitals (LDHH), Office of Public Health, Section of Environmental Epidemiology and Toxicology, investigated a report of asthma-like respiratory symptoms at the East St. John Elementary (ESJE) School located at 1880 Hwy 44 in Reserve, Louisiana. The school has approximately 650 students and is temporarily located on the campus of the Leon Godchaux School at 1880 Hwy 44 in Reserve, Louisiana. The school reported asthma-like respiratory symptoms in 20-24 children each day on two occasions: September 3-11, 2015 and October 26-28, 2015. Children complained to the school nurse of stomach ache, headache, sore throat, chest tightness, vomiting, burning eyes/nose, dizziness, fever, nausea, and weakness. The LDHH investigation included a site visit on September 14, 2015 and consultations with the school nurse, the principal, and regional medical director. The East St. John School Board also hired consultants to test for indoor air quality.

  The DHH November 13, 2015 final report titled, "*Summary of Existing Environmental Public Health Data East St. John the Baptist Parish Elementary School (Leon Godchaux Site)*," finds, in part, the following:

  1. Undocumented symptoms are difficult to assess and the underlying causes of the respiratory symptoms may be different for each child. Further investigation into the health complaints or air quality for the September and October symptoms is unlikely to produce more information on the events or cause or the respiratory symptoms that occurred.
  2. The school is located in a high risk area situated among several industrial facilities that produce air-borne particulates and the risk of chemical releases. The school should be moved back to its permanent location at the earliest possible time.

3. The School Board must provide the results of the indoor air testing to the LDHH and address all issues identified in the consultant report.
4. The school should have a plan to respond to any warnings of releases or production of particulates and should continue its close communications with the St. John Parish Office of Emergency Preparedness. The school should have a plan to minimize the entry of particulates into the school and to manage indoor air quality using the EPA Tools for Schools process.
5. Mechanisms for the industrial facilities to provide immediate warnings to the school of chemical releases or times when heavy particulates are produced should be put into place.

Contacts: George Pettigrew/Jennifer Lyke, Agency for Toxics and Disease Registry (ATSDR)

- Parish Health District – Adrienne Katner, DEnv, MS, published an article titled, "Prioritization of Louisiana Parishes based on Industrial Releases of Known or Suspected Carcinogens" in the Journal of the Louisiana State Medical Society, Volume 167, May/June 2015. Data on estimated industry releases between 1996 and 2011 were obtained from the EPA Toxics Release Inventory. Chemicals associated with cancers of the prostate, lung, bladder, kidney, breast and non-Hodgkin lymphoma were identified. The Risk Screening Environmental Indicators (RSEI) model[2] derived measures or scores based on chemical toxicity, fate and transport, and population characteristics. The article concludes that "*Caddo, St. John the Baptist, East Baton Rouge and Calcasieu parishes were consistently ranked as the highest contributors to cancer-specific model scores. Clinicians should be cognizant of industrial hazards in their communities, and conduct environmental and occupational histories of patients in fenceline communities or in industrial occupations. The RSEI model is an easy to use method for screening potential industry-related hazards at the parish or neighborhood level; and is relevant to doctors serving industry workers and fenceline communities. It is intended that the results will guide and influence state monitoring efforts, regulatory oversight, health investigations, and clinician awareness.*"
  Contacts: George Pettigrew/Jennifer Lyke, ATSDR

VI. Office of Environmental Justice and Tribal Affairs

- EJ Screen information – LaPlace is a census-designated place (CDP)[3] in St. John the Baptist Parish, Louisiana, United States, along the east bank of the Mississippi River in the New Orleans metropolitan area. The population is 32,134 in the 2010 census. LaPlace is located 25 miles (40 km) west of New Orleans. Contact: Israel Anderson, EPA, Region 6

- Homes/Schools/Day Care Centers – The nearest residences and schools are west of the facility. The closest homes are about 700-1400 feet away from the facility fence line. Two schools are about 1500 feet away. The Lady of Grace Elementary School is a private school with 123 students. The Fifth Ward Elementary is a public middle school with 514 students. Another middle school in LaPlace is the East St. John Elementary with 678 students. Contact: Israel Anderson, EPA, Region 6

- Community Meetings – St. John the Baptist Parish, LDEQ, and EPA have scheduled a community meeting on July 7, 2016 to discuss the NATA, the ambient air monitoring for chloroprene, and DPE- Pontchartrain Facility activities. Contact: Rhonda Smith, EPA Region 6

[2] For additional information on RSEI, please see (https://www.epa.gov/rsei/about-risk-screening-environmental-indicators-rsei-model).
[3] A CDP is a concentration of population, in an un-incorporated area, identified by the United States Census Bureau for statistical purposes.