

INFORMATION SHEET

We have been working to address the citizens concerns since the early 1990's and have been environmentally proactive in that area since. There have been many remediation projects. We have extensive fish-tissues sampling efforts in the area with years of data. Our permitting and enforcement arms of the agency play a major role in environmental protection of the area.

We work with sister state agencies, such as DHH, and federal agencies, such as EPA and ATSDR to address concerns in the 1990s and are continuing to do so today.

Areas of concern have been identified in the Calcasieu area, most likely from historical releases of chemicals that pre-date regulation. Many of these areas have been under remediation, because of the work done by local community, state and federal agencies. Examples would be the Bayou d'Inde area, the PPG canal, Indian Marais and Bayou Verdine.

A comprehensive modeling effort was undertaken by DEQ and EPA starting in 2001 to evaluate the potential for exceedances of the ambient air quality standards. This study focused on 6 air toxics that were deemed most likely to have an impact on the community based on total emissions and the known toxicity. In all cases, there were no modeled exceedances offsite of the facilities.

A 36-month study (2001-2004) with five monitoring sites sampled and analyzed for 104 different volatile organic compounds. The study was financed by LAIA, operated by an independent contractor with direct oversight by the EPA and the LDEQ (Louisiana Department of Environmental Quality). During the study over 80,000 data points were collected and analyzed with only two exceeding the standard. All other data was below the LDEQ ambient air standards. All data was below levels of health concern as established by the ATSDR, including the two data points that exceeded the standard.

A March 2006 ATSDR follow-up report on blood testing found elevated blood dioxin levels in people 45 years old or older. However, people younger than 45 had blood dioxin levels that were similar to people of the same age in the U.S.

ATSDR did NOT find a link between the level of dioxin in a person's blood and the level of dioxin and their home environment.

Most persons' blood dioxin levels have decreased since they were first tested.

ATSDR did not find dioxins in water from three wells that were tested, no increased levels in soil and indoor dust nor in locally raised fruit, vegetables or nuts.

ATSDR DID find elevated dioxin levels in fish caught in Bayou d'Inde and under the I-210 bridge.

A 2006 press release from ATSDR states the Mossville follow-up dioxin exposure investigation showed blood dioxin levels decreased in most participants between initial and follow-up testing. Older participants had elevated blood dioxin levels compared to the U.S. population. This elevation is not expected to result in illness. The elevated blood dioxin levels in older participants are likely from past exposures. Data indicate that currently, there is no unusual exposure to dioxin.

DEQ-DHH fish sampling data shows a decline in chemicals in fish tissue. (graphs provided)

Calcasieu Parish, and every parish in the state, meets state and federal toxic air pollutant regulations. The Baton Rouge five-parish area is the only area of the state that is designated as nonattainment with the ozone standard, and monitoring data shows that the area has actually met the standard for the past 2 years.

Another reason we have seen the environment improve over time, is tighter environmental regulations. Since the beginning of regulation by EPA and then by DEQ, regulations on discharges have become stricter. Also, technology and science have advanced to further minimize pollutant discharges.

Our extensive water permit program is based on risk-based limits and modeling. Regulations are there to be protective of human health and the environment.

Water discharges are stricter now than ever before because of the calculation of Total Maximum Daily Loads, which is an assessment of what can be discharged into a waterbody. Permit limitations and final decisions are based on how a facility's water discharge will influence the TMDL and the water quality of the waterbody.

Sanitary sewage wastewater from Mossville is served by the City of Sulphur's Regional WWTP (LA0067083 / AI 19201)

Limits in water discharge permit in/near Mossville are becoming even more restrictive due to the Calcasieu Basin TMDL; (Title - "TMDL for Toxics in the Calcasieu Estuary") which was as issued on 6/13/2002.

Calcasieu Estuary TMDL covers a wide range of waterbodies and pollutants, including metals, priority organics (such as phenols), and other organics (such as DDT and PAHs) within the Calcasieu Estuary

LDEQ Water Permits implemented identified TMDLs in new and reissued permits in/near Mossville after 2002.

Limitations are established to sufficiently protect receiving waterbodies from exceeding water quality standards and are developed to protect both the environment and human health.

Federal Toxic Release Inventory data shows releases of dioxin and dioxin-like compounds into the air and water in Calcasieu Parish to be below 0.18 pound each year since 2000. (Graph provided)

In the DEQ complaint database, there have been five complaints registered from the Mossville area since 2006.

DEQ has been to the 14 sites near Mossville 200 times in the last five years for inspections, hurricane-related activities and incident investigations. Entergy Group (NISCO, Nelson, O&G) – 37; Tetra Technologies – 4; Sasol – 26; PPG – 27; ARCH Chemical – 11; CertainTeed – 12; Lyondell – 17; Conoco – 41; Georgia Gulf – 18; Tessengerlo Kerley – 1; Excel Paralubes - 6

2,3,7,8-Tetrachlorodibenzo-p-dioxin (hereafter dioxin) is a federally-regulated hazardous air pollutant (HAP) and Louisiana-regulated toxic air pollutant (TAP).

Sources of dioxin emissions at major sources of HAP/TAP require Maximum Achievable Control Technology (MACT). Implementation of the MACT standards (both on a federal and state level) did not begin until the mid-1990s.

LDEQ has established an Ambient Air Standard (AAS) for dioxin, 0.003 mg/m^3 . A microgram per cubic meter is one one-millionth of a gram of substance per cubic meter of air, so the AAS for dioxin represents an unimaginably small amount of this compound.

To demonstrate compliance with an AAS, an applicant models potential (not actual) emissions from the facility in question. If the results are less than 7.5% of the AAS at all off-property receptors, the analysis demonstrates compliance; therefore, no further analysis is necessary. Cumulative impacts: If the results are greater than or equal to 7.5% of the AAS at any off-property receptor (0.000225 mg/m^3 in the case of dioxin), refined modeling is required. Refined modeling requires a determination of the Area of Impact (AOI) from the initial screening model. The AOI is defined as a circle with a radius equal to the greatest distance from the facility to an off-property receptor in the initial screening model with a concentration equal to 7.5% of the AAS. To perform refined modeling, all on-property and off-property TAP sources (i.e., emissions from the facility in question plus those from other industrial sources within the AOI) must be included.

Modeled exceedances of standards off of the facility property can lead to reductions of permitted emissions for multiple facilities within the area in amounts necessary to show attainment of the standards.

According to our sister agency, DHH, cancer rates in Calcasieu Parish are on par with the rest of the state. DHH and ATSDR have looked at the types and frequency of illnesses and possible contributors to those illnesses. They were not able to identify a clear, scientific link between the presence of industry and residents' illnesses. Even without that, we have worked closely with residents' and our public health officials have been actively engaged in the local community for decades through education and outreach.

As for providing health care to these residents, Louisiana actually has a unique system for caring for the uninsured called the charity hospital system – no one goes without the medical care they need. Residents unable to pay can go to a charity hospital like the Louisiana State University W.O. Moss Regional Medical Center in Lake Charles near Mossville, and get the care they need.

There is also a federally qualified health center in Lake Charles, the Southwest Louisiana Center for Health Services. It provides health services for the uninsured and underinsured. And because our sister agencies know it may be difficult for some community members to get from their homes in Mossville to Lake Charles for treatment, the Department of Transportation has provided a grant they received from the U.S. Bureau of Primary Health Care to the Calcasieu Parish Public Transit system (Their phone number is 337-721-4020) provide “on demand” transportation to and from the health center; there is a \$5 fee for that service, but in some instances, Medicaid will pay for the fee. The parish itself also has some additional transportation services set up.

DHH and ATSDR have also brought in environmental health specialists in to Mossville to speak with residents in the past. Overall, DHH and our partners are very involved in understanding any health concerns in the area and providing access to care and education to our community members.

Our partner organizations and DHH have also been very involved in testing and ensuring access to safe drinking water. More than 10 years ago, it was determined that the shallow aquifer, where residents had been receiving water was contaminated with solvents, which was when one of the initial remediation programs began. As a result, all of our residents in Mossville were transitioned to a clean aquifer north of the industries; when residents are transitioned, the state requires that the private wells be plugged and no longer used.

According to the water system operator last year, there have been no complaints made about the water quality of the public system. The system was only built in 1972, which is fairly young for a system, and it uses greensand filters, which are known to produce very high-quality drinking water. DHH tests public drinking water monthly at the well head – a more stringent test than what the EPA actually requires. But what comes out of the tap may not be the same thing that comes out of the original well head. One of the primary reasons that can happen is due to simple things like poor or old plumbing in a house. It’s similar to a lot of residents who live in coastal areas who may see some discoloration in their water because of rust on their plumbing that comes from living near saltwater