

Shelby County's *Terrible Ten*

Your Right to Know About Toxic Pollution!

The Sierra Club is publishing this list of Shelby County's top ten active polluters to be used as a public education tool to raise awareness as we all strive for a more safe and sustainable environment. Although the data used to create this report is public information, for some, it may not be easily accessed. It is important that the community have knowledge of the levels of toxic pollution in order to be effective in the public participation processes that assist in the enforcement of environmental regulations and policies. As the public becomes more aware of the dangerous health effects of pollution, it is our hope that government, industry, and citizens will band together to find ways to reduce, find substitutes, and eventually eliminate hazardous substances from negatively impacting our lives. The numbers in this report cannot alone measure the level of danger that these chemical substances pose. For example, five pounds of one substance may represent more danger than a thousand pounds of another. Please note that the most current estimates available from EPA are almost two years old. This report is meant to be helpful in identifying who is releasing large amounts of toxins in your neighborhood, and the known health effects of a wide variety of chemical substances that are emitted into our air, water, and land each day. Reducing pollution and/or better emergency planning might be topics for your next encounter with industry officials in your community.

All of the companies cited in this report have permits for the emissions that are listed. But it must be pointed out that these substances are classified toxic by the EPA or Environmental Protection Agency because scientific studies have shown they pose a threat to human health, and to the environment. Prior to 1986 citizens had no sure way of knowing what chemicals were produced in their community, but the landmark 1986 Emergency Planning and Community Right To Know Act (commonly referred to as EPCRA) requires industries to self-report estimates of their annual emissions. This self-reporting is called the Toxic Release Inventory and allows community residents, environmental advocates and anyone concerned about the health of their community to monitor industrial emissions.

Terrible Ten Industries of Memphis, TN & Shelby County

According to the 2008 Toxics Release Inventory
Website: www.rtknet.org

1. TVA Allen Fossil Plant----- 1,370,721.9 lbs.
2. PMC Biogenix----- 1,006,769 lbs.
3. Cargill----- 546,624 lbs.
4. Lucite Intl.----- 393,530 lbs.
5. Quebecor----- 359,106 lbs.
6. DuPont Memphis Plant----- 241,590 lbs.
7. Valero Refinery----- 137,885 lbs.
8. Southern Cotton Oil----- 134,000 lbs.
9. Fleischmann's Yeast----- 53,129 lbs.
10. Sonoco Phillips----- 33,458 lbs.

This report is produced by:



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For additional information, a speaker for your group, a Toxic Tour, or for more copies of this report, please contact:

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EPCRA law has three main functions:

1. Emergency Notification & Planning provisions require industries to make available to the public potential toxic hazards and plan adequately for emergencies.
2. Community Right to Know makes available to the public important information about toxic chemical emissions from local industries, as well as what substances, and how much might be stored on-site.
3. The Toxics Release Inventory is a self-reporting system requiring certain facilities to file annual reports with the EPA: it covers 632 regulated toxic chemicals, however there are over 80,000 chemical substances in daily use across the U.S.

Additional Internet Resources:

- www.epa.gov - Environmental Protection Agency
www.rtknet.org - Right-To-Know Network (databases)
www.scorecard.org - Pollution & Health Info

What Do Shelby County's *Terrible Ten* Emit?

1. TVA Allen Fossil Plant – 2574 Plant Rd. Memphis, TN 38109

Total Pounds: 1,370,721

Chemical	Where to & Amount			Health Effects
Ammonia	Air: 116,000	Water: 250		AT__ET__CT
Barium Compounds	Air: 4,850	Water: 11,000	Land: 680,000	NT, skin & sensory organs
Benzo(G,H,I) Perylene	Air: 0.1		Land: 0.2	Unknown
Chromium	Air: 255	Water: 0	Land: 8,500	C__RT__Respiratory
Copper	Air: 255	Water: 2,600	Land: 15,000	DT__RT__CT
Dioxin	Air: 1.1			C__DT
Hydrochloric Acid	Air: 250,000			AT__CT
Hydrogen Fluoride	Air: 170,000			DT__NT__RT
Lead Compounds	Air: 160.4		Land: 2,700	C__DT__RT__NT
Manganese Compounds	Air: 255		Land: 29,000	NT__RT
Mercury Compounds	Air: 190	Water: 0	Land: 20	C__DT__RT__CT__NT
Naphthalene	Air: 250			C__NT__RT
Polycyclic Aromatic Cmpds	Air: 17.2		Land: 9	C__CT__RT
Sulfuric Acid	Air: 39,000			AT__CT__ET
Vanadium Compounds	Air: 255	Water: 4,300	Land: 22,000	Respiratory & Immunotoxicant
Zinc Compounds	Air: 755	Water: 1,100	Land: 12,000	DT__RT

ALSO: Water discharges go to: Unnamed tributary to Nonconnah Lake & Mississippi River

2. PMC Biogenix (formerly Chemtura) 1231 Pope Street Memphis, TN 38108

Total Pounds: 1,006,769

Chemical	Where to & Amount			Health Effects
Ammonia	Air: 993,678			AT__ET__CT
Ethylene Glycol	Air: 19			NT
Methanol	Air: 13,072			DT__RT__ET__Respiratory

3. Cargill Inc. - 2330 Buoy Street Memphis, TN 38113

Total Pounds: 546,624

Chemical	Where to & Amount			Health Effects
Acetaldehyde	Air: 27,284			C__DT__NT__RT
Chloroform	Air: 92,842			CT
Hydrochloric Acid	Air: 386,832			AT__CT
Lead	Air: 26			C__DT__RT__NT__Respiratory
Mercury	Air: 3			DT__CT__RT__NT
Sulfuric Acid	Air: 39,637			AT__CT__ET

4. Lucite International – 2665 Fite Rd. Memphis, TN 38127 **Total Pounds: 393,530**

Chemical	Where to & Amount			Health Effects
2-Methylacetonitrile	Air: 7,700	Water: 0	Land: 0	NT__RT__CT
Butyl Acrylate	Air: 2,780			Respiratory & Immunotoxicant
Hydrogen Cyanide	Air: 1,350			AT__CT__ET
Methanol	Air: 90,000			DT__RT__ET__Respiratory
Methyl Methacrylate	Air: 260,000			RT__CT
Toluene	Air: 31,700			DT__RT__ET

5. Quebecor - 828 E. Holmes Road Memphis, TN 38116 **Total Pounds: 359,106**

Chemical	Where to & Amount			Health Effects
Toluene	Air: 359,106	Water: 0	Land: 0	DT__RT__ET

6. Dupont Memphis Plant - 2571 Fite Rd. Memphis, TN 38127 **Total Pounds: 241,590**

Chemical	Where to & Amount			Health Effects
Acetonitrile	Air: 37,921		Land: 8	DT__NT__RT
Acrylonitrile	Air: 201		Land: 0	C__DT__RT__AT__ET
Ammonia	Air: 129,244	Water: 73	Land: 55	AT__CT__ET
Chromium	Air:	Water:	Land: 19	NT
Cyanide Compounds	Air: 1,692	Water: 1	Land: 10	DT__NT__Kidney__Blood
Hydrogen Cyanide	Air: 64,205			AT__CT__ET
Mercury	Air: 1.3	Water: 1.7		DT__RT__CT__NT
Methyl Isobutyl Ketone	Air: 58			CT__NT
Nickel	Air: 19	Water: 84	Land: 10	C__NT__RT__DT
Sulfuric Acid	Air: 7,987			AT__CT__ET

Also: Water discharges go to: Loosahatchie River

Health Effects Codes:

Check the codes. The figures listed represent the amount of the chemical substance released and is measured in pounds. The adverse health effects of each substance are coded, or if information is limited or unknown, it is listed as unknown.

C - Carcinogen – Chemical proven by multiple scientific studies to cause cancer.

HG - Heritable Genetic Mutagen – Chemical that can change the genetic materials (genes and chromosomes) that regulate programs of growth and development. These changes can be passed on to children.

DT - Developmental Toxicant - Chemical that can cause an embryo or fetus to die (miscarriages) or to cause birth defects.

RT - Reproductive Toxicant – Chemical that can harm the ability of either women or men to reproduce.

AT - Acute Toxicant – Chemical which can cause death even from short exposures by breathing, swallowing or touching.

CT - Chronic Toxicant – Chemical that can cause long-term damage other than cancer, for example, liver or kidney disease.

NT – Neurotoxicant – Chemical which can cause harm to the nervous system by affecting the brain, spinal cord, or nerves.

ET - Environmental Toxicant – Chemical that can harm wildlife when released to the water or land.

B -- Bioaccumulator – Chemical that can enter the bodies of animals and plants and is not easily expelled.

P - Persistent Chemical – Chemical which does not break down easily in the environment.

7. Valero) Refinery 543 W. Mallory Ave. Memphis, TN 38109

Total Pounds: 137,885

Chemical	Where to & Amount			Health Effects
1,2,4-Trimethylbenzene	Air: 3,071		Land: 0	NT
1,3-Butadiene	Air: 177			C__DT__RT__NT
Ammonia	Air: 5,212			AT__CT__ET
Anthracene	Air: 5			DT__AT__RT
Antimony Compds.	Air: 53			CT__RT
Benzene	Air: 6,886	Water: 11	Land:	C__DT__RT__NT
Benzo(G,H,I)Perylene	Air: 3			Unknown
Carbon Disulfide	Air: 1,059			DT__RT__NT
Carbonyl Sulfide	Air: 10			NT__Skin & Sensory Organs
Certain Glycol Ethers	Air: 5			DT__NT__RT
Cresol (Mixed Isomers)	Air: 10	Water: 35		NT__RT
Cumene	Air: 175		Land: 0	NT
Cyanide Compds.	Air: 117			NT
Cyclohexane	Air: 4,318		Land: 0	NT
Dioxin & Dioxin Compds.	Air: 0.4			C__DT
Ethylbenzene	Air: 3,298	Water: 1	Land: 0	C__D__NT__RT
Ethylene	Air: 8,092			NT__RT
Ethylene Glycol	Air: 5			DT__NT__RT__CT
Hydrochloric Acid	Air: 186			AT__CT
Hydrogen Cyanide	Air: 79			AT__CT__ET
Hydrogen Fluoride	Air: 34			DT__NT__RT
Lead	Air: 81	Water: 176		C__DT__RT__NT__Respiratory
Mercury	Air: 7			DT__CT__RT__NT
Methanol	Air: 5			DT__RT__ET__Respiratory
Molybdenum Trioxide	Air: 5			C__NT__RT
N-Hexane	Air: 10,652		Land: 0	DT__NT
Naphthalene	Air: 1,583		Land: 0	C__NT__RT
Nickel Compounds	Air: 197			C__DT__CT__RT
Phenanthrene	Air: 1			Respiratory
Phenol	Air: 507	Water: 39	Land: 0	DT__NT__RT
Polycyclic Aromatic Cmpds	Air: 251			C__RT__Respiratory
Propylene	Air: 10,962			Respiratory
Styrene	Air: 298			C__NT__DT__RT__Respiratory
Sulfuric Acid	Air: 48,912			AT__CT__ET
Tetrachloroethylene	Air: 5			C__DT__CT__NT__RT
Toluene	Air: 13,557	Water: 1	Land: 0	DT__RT__ET
Vanadium	Air: 130			Respiratory & Immunotoxicant
Xylene (Mixed Isomers)	Air: 17,673	Water: 1	Land: 0	DT__RT__ET

NOTE: Permitted discharges go to McKellar Lake, Latham Bayou, Nonconnah Creek, and the Maxson (south) Wastewater Treatment Plant

8. Southern Cotton Oil - 2782 Chelsea Memphis, TN 38108

Total Pounds: 134,000

Chemical	Where to & Amount			Health Effects
N-Hexane	Air: 91,000	Water: 0	Land: 0	DT__NT

9. Fleischmann's Yeast - 2743 Riverport Rd., Memphis, TN 38109

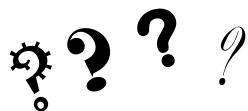
Total Pounds: 53,129

Chemical	Where to & Amount			Health Effects
Acetaldehyde	Air: 52,393	Water: 0	Land: 0	NT

10. Sonoco Phillips - 2755 Harbor Avenue, Memphis, TN 38113

Total Pounds: 33,458

Chemical	Where to & Amount	Health Effects
Certain Glycol Ethers	Air: 22,026	DT__NT__RT
Methyl Isobutyl Ketone	Air: 6,265	CT__NT
N-Butyl Alcohol	Air: 5,167	CT__NT__RT



Are you aware of local boards and committees that may be making decisions that impact your quality of life, safety, and health? When was the last time you attended a meeting of the Air Board, Water Board, or Local Emergency Planning Committee? What was discussed at their last meeting? Call the Sierra Club Environmental Justice office @ 901.324.7757 to learn how YOU can be your best "watchdog."

Points to Ponder:

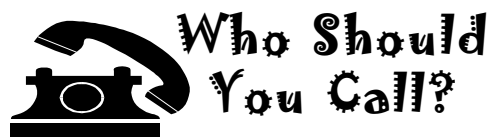
The following facts are reported by the Environmental Defense Scorecard (www.scorecard.org).

Chemically-induced cancer generally develops many years after exposure to a toxic agent. A latency period of as much as thirty years has been observed between exposure to asbestos, for example, and incidence of lung cancer.

Some Shelby County studies have shown that over 800,000 people face a cancer risk more than 100 times the goal set by the Clean Air Act.

97% of the air cancer risk is from mobile sources (such as cars, trucks and buses), 2.3% is from area sources (such as gas stations, dry cleaners, auto paint shops, etc.), and 0.32% is from point sources (incinerators, chemical plants, refineries, coal-fired power plants, etc.)

Global Warming! Some chemicals can damage the earth's protective ozone layer. Certain ozone gases filter the sun's ultraviolet (UV) radiation. Any thinning of the ozone layer allows more radiation to reach the Earth's surface. In terms of human health, overexposure to UV rays can lead to skin cancer, cataracts, and weakened immune systems.



- ◆ **TN Dept. of Environment & Conservation:**
(Nashville) Toll-Free 1-888-891-8332
- ◆ **TN Dept. of Environment & Conservation:**
Industry permits, regulations, public meetings
(Memphis Field Office) - 368-7939
- ◆ **EPA TRI and Superfund Hotline:**
Suspected Brownfields or contaminated property
Toll Free 1-800-424-9346 (9am - 6pm)
- ◆ **EPA National Environmental Justice Office:**
Toll Free 1-800-962-6215
- ◆ **EPA Region 4 - Environmental Justice Office:**
(Atlanta) 1-404-562-9649
- ◆ **EPA Office of External Affairs:**
1-800-241-1754 (Public Relations & etc.)
- ◆ **Health Department Pollution Control:**
To report odors, and questions about health effects.
Air, Water, Land Concerns (Local) 544-7775
- ◆ **Emergency Management Agency:**
For accidents, spills, evacuations (Local) 458-1515
- ◆ **Agency for Toxic Substances & Disease Registry:**
(ATSDR) Info Center 1-888-422-8737



Contaminated Water = Contaminated Fish

Large amounts of fish should **NOT** be consumed from the Loosahatchie River, Wolf River, Mississippi River, McKeller Lake and Nonconnah Creek. Chlordane and other toxic pollutants have been found in all of the above bodies of water as well as in fish tissue samples.

<http://tennessee.gov/environment/wpc/publications/pdf/advisories.pdf>



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Place
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FACT: Memphis, TN, compared with other cities in Tennessee, has the 6th highest amount of 'on-site' toxic industrial emissions' or releases.

“...to educate and enlist humanity to protect and restore the quality of the natural and human environment...”
Sierra Club Mission Statement

ASK QUESTIONS! Ask about emissions & pollution reduction plans!

You have a right to know about pollution control, emergency management plans, and community safety!

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