



## **Bibb Tire Manufacturing** **May 23, 2008**

On May, 21, 2008, the Houston County Environmental Health Manager contacted the Chemical Hazards Program (CHP) regarding a proposal for the development of a tire manufacturing plant in Bibb County near the Houston County border. The primary concern was the potential for public exposure to contamination in a groundwater recharge area, and recommendations for protection of public health. The facility will be located in an industrial area surrounded by undeveloped land.

CHP conducted a review of available regulatory, public health, and industry information on rubber tire manufacturing. The operations of a rubber tire manufacturing plant include taking raw materials (rubber, metals, and textiles) and creating tires usable on vehicles. Various machines are used to create these tire components. Process emissions include, but are not limited to, particulate matter and VOCs, like toluene, hexane, formaldehyde, styrene, methanol, and degreasers.

Rubber tire manufacturers release hazardous air pollutants; however the U.S. Environmental Protection Agency (EPA) has drafted release limits. Releases to groundwater or soils can often be contained on-site. For residents, the issues would be primarily particulate matter and VOC emissions in ambient air. Worker health and safety are covered by the Occupational Safety and Health Administration. Associations can be made between employment in the rubber industry and bladder cancer, leukemia, stomach, and lung cancer; according to the International Agency for Research on Cancer (IARC), there is sufficient evidence of carcinogenicity to humans.

The EPA requires technology to be installed at the plants that will reduce emissions and releases to groundwater or soil. EPA regulatory guidance rules propose national emission standards for hazardous air pollutants (NESHAP) for new and existing sources at rubber tire manufacturing facilities. EPA has identified rubber tire manufacturing facilities as major sources of hazardous air pollutants (HAP) emissions. Through the Clean Air Act (CAA), these facilities would require all major sources to meet HAP emission standards that reflect the application of maximum achievable control technology (MACT). The primary HAP that would be controlled with this action includes toluene and hexane. These are associated with a variety of adverse health effects including chronic health disorders (e.g., polyneuropathy, degenerative lesions of the nasal cavity) and acute health disorders (e.g., respiratory irritation, headaches).

CHP contacted the Georgia Environmental Protection Division (GEPD) and spoke to several offices including the Hazardous Waste Management Branch, Water Protection Branch, and the Air Protection Branch. These GEPD branches provided information about permitting tire manufacturing facilities. CHP spoke with the Air Protection Branch about a similar facility located in Bartow County about releases to the environment. The facility in Bartow County does not have hazardous waste releases to soil or water, and GEPD permits and regulates air emissions. Therefore there are no expected public health issues related to releases of toxic chemicals into soils, groundwater, or ambient air in a water recharge area.