

A STUDY ON THE AFFECTED POPULATION SURROUNDING THE INDUSTRIES RELEASING OSHA CARCINOGENS IN JEFFERSON COUNTY USING TOXIC RELEASE INVENTORY

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Abstract

The Toxics Release Inventory (TRI) is a publicly available EPA database that contains information on toxic chemical releases and waste management activities reported annually by certain industries as well as federal facilities.

The data obtained from the TRI can be used to determine the actual number of people living in the two mile zone of each facility releasing carcinogens in the Jefferson County. The study is conducted with the help of the data obtained from TRI. The information regarding the location of the Facilities releasing OSHA carcinogens in the Jefferson County is gathered from the TRI Explorer. There were 49 such facilities. Then with the help of GIS the information is incorporated with the population map of Jefferson County, Alabama, to see the actual number of people who live within the two mile area of the facilities.

The study also looks at the number of people of different age groups within the area. The population with age below 5 years and those above 65 are most susceptible to such carcinogens. Thus emphasis has been given particularly to these two groups. Variations in the different racial groups were studied, i.e., which racial groups dominate in the sphere of influence of the industries.

The limitation of the study is that the data uses only the OSHA Carcinogens which comprises of only 4 groups of chemicals: arsenic compounds; dioxin and dioxin-like compounds, chromium compounds, lead compounds, and polycyclic aromatic compounds (PACs). Further study on all carcinogens could benefit the locals and policy makers to establish reduction targets and measure progress toward those targets.