

Potential thyroid carcinogens in atmospheric emissions from industrial facilities in Manizales, a midsize Andean city in Colombia

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© 2017 Turkish National Committee for Air Pollution Research and Control Background Manizales is a city in Colombia that presents high rates of thyroid cancer. It has a medium industrial development and there are concerns of the impact of their emissions on health, particularly on thyroid cancer. In this paper we characterize the geographical pattern of industrial atmospheric emissions of suspected thyroid carcinogens. Methods We systematized data of industries in two groups. First, those with reports of atmospheric emissions of suspected thyroid carcinogens (reporting facilities ? RFs), and then, industries not required to report or facilities with no-available emissions data but belonging to the same SIC-codes than RFs (nonreporting facilities ? non-RFs). For non-RFs, annual average atmospheric emissions were estimated using a per-employee algorithm. The spatial pattern of sources emitting carcinogens was represented by plotting facilities by size and amounts of specific pollutants r