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## **Measurement of Petroleum Hydrocarbons in the Air of Homes Using Fuel Oil Heating**

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In New York State, there are more than 1,000 fuel oil spills each year. Many of these spills involve contamination of the indoor air in residential homes and offices. Measurements of indoor air concentrations of Volatile Organic Compounds (VOCs) are often used to determine when reoccupancy of a building can occur following contamination and cleanup. Assessments of health risks are often based solely on the levels of "regulated" compounds (Benzene, Ethylbenzene, Toluene and Xylenes) which make up only a very small fraction of the volatile organic compounds found in fuel oil and which may persist after cleanup. Samples are collected using 6-liter stainless steel canisters that are subsequently analyzed by GC/MS techniques. Over 50 homes from across New York State have been sampled during the heating and cooling months. These samples are analyzed for volatile hydrocarbon content. Data from these tests are presented to illustrate the levels of the background indoor air VOC concentrations from homes currently using fuel oil. These data are compared to the US EPA Volatile Organic Compound Database Update of typical VOC indoor and outdoor air concentrations. Differences between these data are highlighted and discussed.