

Episode 22. August 20, 2022. How do you cope with your neighbor's wood smoke infiltrating into your nearby residence? How could you provide documentation of wood burning which emits PM 2.5 which reaches your yard, and infiltrates your home? PurpleAir PM 2.5 monitors to show the level of pollution reaching neighbors yards, and Ring or other security cameras to show timing of wood burning. In the past, ordinances passed against Outdoor Wood Boilers. Because the selling point of Outdoor Wood Boilers was that the wood smoke was diverted to neighbors' property, their pollution was evident to their neighbors. In the state of Wisconsin, by 2011, dozens of local ordinances in villages, towns and cities were passed to ban Outdoor wood boilers, based on the testimony of health effects of wood smoke PM 2.5 on near neighbors. Residents Against Wood Smoke Emission Particulates (RAWSEP) members in Wisconsin helped pass many bans on residential outdoor wood burning which improved the health of near neighbors. But residential indoor wood burning is unchecked in many areas, and indoor wood burning is causing these same health problems. In the past, the E P A certification of wood stoves as efficient was thought by some to control the pollution of wood burning in indoor wood burning appliances. But it is not true that certification of wood burning appliances ensures their emissions are at a low enough level to have no health effects on near neighbors. Resident-owned, low-cost PM 2.5 monitors, chiefly manufactured by PurpleAir in North America and used by many RAWSEP members, can measure Particulate matter of 2.5 micron size, the perfect size to infiltrate the human lung, causing a cascade of human health problems. PM 2.5 is found in 90% of wood burning smoke. Security cameras, such as Ring, operated 24 7, pointed at the roofs of wood burning houses, not violating privacy because no human activity is filmed, show the timing of smoke from wood burners' stacks. Ring cameras cost under \$75, with a \$100 per year subscription. If there is a complaint to a local health department of nuisance smoke, the neighbor should be able to have the government look at the data collected and saved on the Public PurpleAir map documenting the level of PM 2.5 in the neighbor's yard. PurpleAir data is collected every ten minutes. PurpleAir monitors cost under \$300. PurpleAir PM 2.5 data is also shared on U S Government AirNow maps of Smoke and Fire alongside E P A PM 2.5 monitor data, correlated with E P A data with a simple mathematical formula. Although these technologies are now available to most residents of North America, or could be supplied by residents through government or charitable programs such as Asthma societies, these methods are not used to scientifically corroborate complaints by neighbors of wood burner's smoke in their yards and infiltrating their homes. RAWSEP advocates for these new methods to be written into local ordinances or other enforceable laws and advocates for these new methods to be used to enforce laws and shut down residential wood burning because of the health effects on near neighbors of the particulate emissions that wood burning produces. RAWSEP also will comment in the period starting in November 2022 to change E P A PM 2.5 minimum standards to 8 from the current 12, to more closely match the World Health Organization (W H O) PM 2.5 standard of 5 micrometers per meter cubed. In the London, England area PM 2.5 monitors were handed out free to residents because PM 2.5 pollution since 2019 has been caused primarily by residential wood burning, more than PM 2.5 caused by traffic. The American Lung Association Woodstove changeout programs should only be exchanges of woodstoves or Outdoor Wood Boilers for non-wood-burning heating appliances such as heat pumps with natural gas or electric inserts or natural gas furnaces.