

Episode 56RC February 24, 2024. Kewtie poster, give mother clean air, we need it, updated from a 1909 poster. Episode 56RC is about the four numbers 9, 10, 10, and 10, which stand for annual PM2.5 “safe” ambient air (outside air) limits as of February 2024, United States 9, European Union 10, United Kingdom 10, and Scotland 10 micrograms per cubic meter. Table of Contents 1)A1909 suffrage poster, updated for 2024. 2)The European Union’s current PM2.5 limit of 10 micrograms per cubic meter compared to US’s new lower PM2.5 limit of 9, (a revolution number 9, number 9) 3)The UK PM2.5 limit now matches Scotland’s PM2.5 limit of 10 micrograms per cubic meter, held since 2016. 4)Charles Demuth’s painting “I saw the figure 5 in gold” (which was indirectly a tribute to fire prevention) could represent the W H O’s 2021 PM2.5 “gold standard” “safe” limit of 5 micrograms per cubic meter. 5)A new Atlanta, Georgia, study finds a link between traffic PM2.5 emissions and dementia. 6) United Kingdom. Canal boats and wood smoke pollution. And 7 to 16)Headlines. 7)PM2.5 and intellectual disability. 8)California. Wood Pellet Mills pollution. 9)California, Santa Rosa, letter to the editor against wood smoke pollution. 10)Colorado, Denver and Boulder compare dirtier air. 11)Idaho. Red Cross volunteers respond to 13 Idaho home fires in January American Red Cross. wood-burning stoves and fireplaces. 12)Minnesota, Fire destroys garage near Island Lake, Saint Louis County. the homeowner returned from work, lit an exterior wood-fired boiler, and then went inside the home. Smoke was observed a short time later near the boiler. 13)Utah. Black carbon sensor could fill massive monitoring gaps - @theU - The University of Utah, 14)Spain, Valencia. Valencia: Four dead and 14 missing as blaze engulfs apartment block. 15)Ukraine, Lviv. RAWSEP View: Burning wood and it’s PM2.5 emissions only adds to the suffering of human beings in Ukraine. Even in a war zone, couldn’t dead wood be composted to create usable soil, soil which is inflammable? [Season of burning dead wood has begun in Lviv region: 10 fires extinguished per day](#) ecopolitic.com.ua 16)Thailand. 650000 people treated for PM2.5-induced illnesses so far this year | Thai PBS World PM 2.5. Share Post. Hunger striking reformist protester moved to Thammasat U Hospital. February 23, 2024. Parnpree expects humanitarian aid to Myanmar. Moving on to RAWSEP analysis of news and analysis of articles. 1)is an update of a 1909 suffrage poster, featuring Kewties, for 2024, 115 years later, saying “Give Mother clean air, we need it. Our food, our health, our play, our homes, our schools, our work, are ruled by PM2.5 wood smoke. Isn’t it a funny thing that a wood burner can’t see, why Mother ought to have an airing on how these things should be? Think it over” say the marching Kewties. 2)And now on to numbers, which are primarily used, in both the United States and the European Union, to put children to sleep. In February 2024 there was a seismic change in the number used for the “safe” limit for the particulate matter of 2.5 micrometer size (PM2.5) “safe” ambient (outside) air, both in the United States on 2/9/2024 and the European Union on 2/20/2024. 3a)The United States changed the “safe” PM2.5 limit from 12 to 9 micrgrams per cubic meter for PM2.5 “safe” annually on 2/9/2024. 3b) The European Union changed the “safe” PM2.5 limit from 25 (yes, you read that right, 25) to a mere 10 micrgrams per cubic meter for PM2.5 “safe” annually on 2/20/2024. RAWSEP’s editor is inevitably reminded of the famous artist Charles DeMuth’s modernist painting of 1928 (96 years ago!) titled “I saw the figure 5 in gold” since 5 is the gold standard of an annual PM2.5 “safe” limit, set by the World Health Organization (W H O) in 2021 cut in half from the 2005 limit of 10 micrograms per cubic meter annually, which the United States and the European Union are now struggling to emulate, in order to protect human health and slow climate change, since both human health and climate change are worsened by PM2.5, and Wood burning is 90% PM2.5, particulate matter of 2.5 micrometer size, the perfect size to infiltrate the human lung, setting off a cascade of human health problems and early deaths. Wood burning emits 2.8 times the CO2 and PM2.5 as the fossil fuel coal burning. Wood burning emits 450 times the PM2.5 as the fossil fuel natural gas burning. 3)Within theUnited Kingdom. The Environmental Targets (Fine Particulate Matter) (England) Regulations 2023 require that in England by the end of 2040: An annual average of 10 µg/m3 for PM2.5 is not exceeded at any monitoring station. The UK’s target limits for PM2.5, the most hazardous pollutant to human health, are aligned with the EU target which is an annual mean of 10 ug/m3) with the exception of Scotland, which has its own more stringent target of less than 10 µg/m3 since 2016. [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.](#) 4 Nations: A Brief Guide to the Different Flags of the Countries of United Kingdom. 3a)England – St. George’s Cross 3b)Wales – the Red Dragon (Y Ddraig Goch) 3c)Northern Ireland – St. Patrick’s Saltire and the Ulster Banner 3d)Scotland – St. Andrew’s Cross 3e)United Kingdom – Union Flag. Number 4)Charles Demuth’s 1928 painting which concerns a fire engine, one of the many beacons of hope in a burning world in 2024. [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.](#) Background of the painting “I saw the figure 5 in gold” (1928) by Charles Demuth completed eight symbolic

GIVE MOTHER THE WE NEED IT Clean Air

VOTES FOR OUR MOTHERS

**OUR FOOD OUR HEALTH OUR PLAY
OUR HOMES OUR SCHOOLS OUR WORK
ARE RULED BY PM2.5 wood
Smoke**

**Isn't it a funny thing
That a wood burner cannot see
Why Mother ought to have An airing
On how these things should be?**

THINK IT OVER

Printed by National Woman Suffrage Publishing Company, Inc., 505 Fifth Avenue, New York

portraits between 1924 and 1929 as tributes to modern American artists, writers, and performers. Though not a physical likeness, Demuth created this portrait of his friend, the poet and physician William Carlos Williams, using imagery from Williams's poem *The Great Figure*, which evokes the sights and sounds of a fire engine speeding down the street. Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. The intersecting lines, repeated "5," round forms of the numbers, lights, street lamp, and blaring sirens of the red fire engine together infuse the painting with a vibrant, urban energy. Demuth derived the title from the poem, which reads: Among the rain and lights I saw the figure 5 in gold on a red firetruck moving tense unheeded to gong clangs siren howls and wheels rumbling through the dark city. 5)A Guardian article saying air pollution could be a significant cause of dementia, even to those with no predisposition to dementia. The article cites an Atlanta, Georgia study of the effect of levels of traffic PM2.5 emissions on rates of dementia even for those not predisposed to dementia. Although this is a study of PM2.5 from traffic, PM2.5 is PM2.5 and through the human folly of an increase in indoor residential wood burning across the United Kingdom in recent years, PM2.5 emissions from indoor residential wood burning have exceeded PM2.5 emissions from traffic, in percentage, for the last few years across the United Kingdom. In reaction, the United Kingdom government has become, by 2024, one of the most progressive governments regulating indoor residential wood burning. 5)Air pollution could be a significant cause of dementia, with the PM2.5 causing plaques in the brain, even for those not predisposed genetically, in other words, even for those who did not have the genetic marker, the ApoE4 allele. Researchers stated "We found that the association between In air pollution and severity of Alzheimer's disease was stronger among those who did not carry an ApoE4 allele, those who did not have that strong genetic risk for Alzheimer disease, Which kind of suggests that environmental exposures like air pollution may explain some of the Alzheimer's risk in people whose risk cannot be explained by genetic risk factor." Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization. <https://www.theguardian.com/environment/2024/feb/21/air-pollution-could-be-significant-cause-of-dementia-even-for-those-not-predisposed?CMP=> People in areas of high PM2.5 concentrations had higher amounts of amyloid plaques in brain. February 21, 2024. A team of researchers from Atlanta's Emory University (investigated) the effects on people's brains of exposure to the type of fine particulate matter known as PM2.5, particles of less than 2.5 microns in diameter, suspended in the air, and known to penetrate deep into living tissue, including crossing the blood-brain barrier. Traffic-related PM2.5 concentrations are a major source of ambient pollution in Atlanta, and also in urban centers across the planet. the brain tissue of 224 people from Atlanta (was examined). 90% of (the brain tissue donors) had a diagnosis of some form of dementia, (and) had agreed to donate their brains to medical science after their deaths. The team also investigated the traffic-related PM2.5 pollution exposure at subjects' homes in the years leading up to their deaths. The average level of exposure in the year before death was 1.32 micrograms per cubic metre ($\mu\text{g}/\text{m}^3$) and 1.35 $\mu\text{g}/\text{m}^3$ in the three years before death. "We found that donors who lived in areas with high concentrations of traffic-related air pollution exposure, in particular PM2.5 exposure, had higher levels of Alzheimer's disease neuropathology in their brain." There was a positive relationship between exposure to high levels of PM2.5 and levels of amyloid plaques in the brains of the subjects the team examined. They found that people with a 1 $\mu\text{g}/\text{m}^3$ higher PM2.5 exposure in the year before death were nearly twice as likely to have higher levels of amyloid plaques in their brains, while those with higher exposure in the three years before death were 87% more likely to have higher levels of plaques. The team also investigated whether having the main gene variant associated with Alzheimer's disease, ApoE4, had any effect on the relationship between air pollution and signs of Alzheimer's in the brain. "We found that the association between In air pollution and severity of Alzheimer's disease was stronger among those who did not carry an ApoE4 allele, those who did not have that strong genetic risk for Alzheimer disease, Which kind of suggests that environmental exposures like air pollution may explain some of the Alzheimer's risk in people whose risk cannot be explained by genetic risk factor." The findings are published in the 21 February 2024, online issue of *Neurology*[®], the medical journal of the *American Academy of Neurology*. 6)United Kingdom. RAWSEP View: Wood burning stoves on canal boats are unnecessary and unnecessarily hazardous, in terms of flammability of canal boats and more importantly in terms of wood burning emissions polluting the air of near neighbors of docked and undocked canal boats, and the harm of acceleration of climate change from wood burning emissions of PM2.5 and CO2 at levels 2.8 times that of coal burning. Wood burning also emits 450 times the PM2.5 as the fossil fuel natural gas burning. Canal boats and wood smoke pollution. [Canal boats' green image goes up in smoke | Ethical and green living - The Guardian](#). Letters: A resident responds to a travel article about narrowboating (with a photo of a wood burning stove on a canal boat) in Lancashire with a



cautionary word about wood burners and diesel. [Letters](#) Canal boats' green image goes up in smoke. [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.](#) A resident responds to a travel article about narrow-boating in Lancashire with a cautionary word about wood burners and diesel engines. Plus a letter from a Professor on other sources of particulate pollution, than woodburning stoves. February 23, 2024. I enjoyed the article on narrow-boating ([After five years on a narrowboat, I've finally reached the end of the canal network, 17 February](#)) February 17, 2024, as a regular walker of canal towpaths (and also hailing from north-west Lancashire). But the picture of the author relaxing in front of his wood-burning stove reminded me that this is the heating method of choice for most canal boat owners, so I suppose that those of them who are regular Guardian readers will still be agonizing over another recent article ([Wood-burning stoves largely offset fall in particulate pollution from roads in UK, February 14, 2024](#)). And, given that most canal boats are powered by diesel engines, are there any words of comfort and advice that you can offer them now that their green transport credentials have taken another knock? Resident. Old, Northamptonshire. Your article quotes Prof Chris Whitty, chief medical officer for England and his view that wood burners produce 450 times more toxic air pollution than gas central heating. I have no problem with proposals to abolish wood burners. come up with an intelligent policy plan to get to zero particulate pollution from all sources on all streets where people live. Professor. Liverpool John Moores University. 7 to 16)Headlines 7)PM2.5 and intellectual disability. [PM2.5 threshold exceedances during the prenatal period and risk of intellectual disability](#) Nature. particulate matter $\leq 2.5 \mu\text{m}$ in diameter (PM2.5) due to concerns about health effects. Recently, some PM2.5 regulatory guidelines (in the United States) have been lowered (from 12 to 9 micrograms per cubic meter annually), and (in the European Union have been lowered from 25 to 10 micrograms per cubic meter annually) and (the United Kingdom follows the EU standards, which will match Scotland's standard since 2016 of 10 micrograms per cubic meter annually). 8)California. [Wood Pellet Mills in California: A Blessing or a Boondoggle? - Capital & Main](#) Or where Greenville used to be. Most of it burned to ash in the Dixie fire in 2021, the largest in state history. 9)California, Santa Rosa. [Friday's Letters to the Editor - The Press Democrat](#) Children, older adults and people with a heart or lung disease are at a greater risk. It's likely one of your neighbors is harmed by wood smoke. 10)Colorado, Denver. [People in north Denver, Commerce City breathe in dirtier air: CU Boulder study - Denver7](#) Representative PM2.5 surface concentration maps. Black lines are census tracts contained within Denver's UA. 11)Idaho. [Red Cross volunteers respond to 13 Idaho home fires in January](#) American Red Cross. wood-burning stoves and fireplaces. "Home fires can happen to anyone at burn. And never leave space heaters unattended. · Avoid matches: Teach. 12)Minnesota, Island Lake. [Fire destroys garage near Island Lake - Northern News Now](#) burning garage. According to the St. Louis County Sheriff's Office, the homeowner returned from work, lit an exterior wood-fired boiler, and then went inside the home. Smoke was observed a short time later near the boiler. 13)Utah. [Black carbon sensor could fill massive monitoring gaps - @theU - The University of Utah](#) to allow researchers and policy makers to triangulate such sources. Black carbon pollutants are a type of fine particulate matter (PM2.5), a class of air particles small enough to be inhaled into the lungs and absorbed. Its two main sources, diesel exhaust and wood smoke from wildfires and household heating, produce ultrafine air particles that are up to 25 times. 14)Spain, [Valencia: Four dead and 14 missing as blaze engulfs apartment block in Spain](#) Evening Standard. Best places to. The fire sent clouds of black smoke billowing skyward that could be seen from afar. 15)Ukraine, Lviv. RAWSEP View: Burning wood and it's PM2.5 emissions only adds to the suffering of human beings in Ukraine. Even in a war zone, couldn't dead wood be composted to create usable soil, soil which is inflammable? [Season of burning dead wood has begun in Lviv region: 10 fires extinguished per day](#) ecopolitic.com.ua In the Lviv region, **rescuers extinguished 10 dry grass fires on February 22**. The fire destroyed about 5,000 m2 of dead wood, the Main Department of the State Emergency Service of Ukraine in Lviv Oblast reports on Facebook. 16)Thailand. [650000 people treated for PM2.5-induced illnesses so far this year | Thai PBS World](#) PM 2.5. Hunger striking reformist protester moved to Thammasat U Hospital. February 23, 2024. Parnpree expects humanitarian aid to Myanmar.

