

Episode 56QZ February 21, 2024. It's Pavia, not Milan, where PM2.5 pollution is now highest, in real time.

Italy, Milan. RAWSEP View: From February 16 to 19, 2024 nearby Pavia had much higher levels of PM2.5 than Milan, according to data downloaded from PurpleAir monitors in Pavia and Milan. See the Youtube video of Episode 56QYK published 2/20/2024 at <https://www.youtube.com/watch?v=9sa-ljFsMR8&t=322s> which is an example of PurpleAir monitors used for citizen science, to bring out real facts about real levels of PM2.5 pollution in real time. RAWSEP picked the area out for analysis because of the red mark on the map in that location. Milan was under a blanket of smog on Tuesday as a row broke out over data from a monitoring group that ranked the northern Italian city long known for its poor air quality among the most polluted in the world, alongside Dhaka, Lahore and Chengdu. [Milan mayor casts doubt on city's ranking as third most polluted in world - The Guardian](#) IQAir labelled Milan 'unhealthy' over PM 2.5 levels triggering limits on daytime traffic. [Milan disputes pollution data showing it as third most polluted city in the world - Firstpost](#) particulate matter (PM 2.5) in the air, exceeding the World Health Organisation's recommended limit by 24 times. This ranking positioned Milan. Milan mayor casts doubt on city's ranking as third most polluted in world. IQAir labelled Milan 'unhealthy' over PM 2.5 levels, triggering limits on daytime traffic. Rome. February 20, 2024. **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.** Milan was under a blanket of smog on Tuesday 2/20/2024 as a row broke out over data from a monitoring group that ranked the northern Italian city long known for its poor air quality among the most polluted in the world, alongside Dhaka, Lahore and Chengdu. The controversy began on Sunday, when the Swiss real time air quality website IQAir labelled Milan "unhealthy" as the level of fine particulate matter, or PM 2.5, in the city's air was 24 times above the limit recommended by the World Health Organization (WHO). According to IQAir's website, its data is gathered from "governmental stations and **low-cost sensors owned by citizen scientists** around the world". The Milan mayor, who has introduced some bold anti-pollution measures since being elected mayor in 2016, has dismissed the IQAir data as "the usual impromptu analyses made by a private body" The Lombardy unit of Arpa, a regional environmental protection agency, confirmed that the city's air had eclipsed a PM 2.5 limit in recent days, triggering a series of anti-pollution measures, including limits on daytime traffic, to be enacted in Milan and eight other cities in the badly affected areas of the region. Lombardy is in the Po Valley, a huge geographic area in northern Italy which is [among the worst](#) in Europe for air pollution. the director for air quality at Arpa Lombardy said the agency "cannot confirm what was published by IQAir". He told LaPresse news agency the data on the site "varies from hour to hour" and comes from "very different types of sources". Legambiente, Italy's largest environmental organisation, accused Lombardy's leaders of having no clear strategy to improve air quality, while more than 50,000 residents in Milan have reportedly backed a push to take legal action against the city's authorities over the smog levels. "The time has come for a class action lawsuit. We can't wait until we get sick." Poor air quality was linked to 50,303 premature deaths in Italy in 2020, according to the EEA. Most were in Milan, but Cremona in Lombardy was the Italian province with the highest proportion of deaths – between 150 and 200 per 100,000 residents – attributed to PM 2.5. Washington, Clark County, Chehalis. RAWSEP View: RAWSEP wishes that this letter writer had included indoor residential wood burning along with car exhaust and gas furnaces as sources of pollution. Wood burning emits 450 times the PM2.5 as natural gas burning. But later on in the letter the writer refers to leaving wood in fields instead of burning it, which RAWSEP agrees with. Wood in fields could also be composted to yield usable soil, in RAWSEP's opinion, rather than burning wood. [Letter to the editor: It's time to stop pretending there are no consequences to burning carbon](#) The Chronicle. Instead of burning wood waste, it should remain in the field to keep the carbon sequestered as long as nature will allow. It's time to stop. Letter to the editor: It's time to stop pretending there are no consequences to burning carbon-based fuels Letters to the editor can be submitted to [letters@chronline.com](mailto:letters@chronline.com). **Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.** Monday, February 19, 2024. When people complain about the cost of government programs, they usually ignore the cost of doing nothing. According to Exxon, Americans in the future will decide it is necessary to retrieve the pollution that we are currently discharging from our tailpipes and gas furnaces. Exxon thinks carbon capture market will grow to \$4 trillion per year by 2050, and they will get the contracts to do the work. Our children will be paying to clean up our mess. I support the Climate Commitment Act because it provides funding for clean energy now and reduces the burden we'll leave for our kids. It's clear to me that prevention is far cheaper than the cure. My friend has a Chevy Bolt, which costs \$30,000. She charges it with the solar panels on her roof. She drives on sunshine. In most of America, solar and wind are already the cheapest forms of energy. What's not to like about clean air and clean

energy? According to the UW Climate Impacts Group, the summer temperature in Cowlitz County will be 6 degrees higher and peak streamflows will be up 36% on average during the 2040-2050 time frame. Instead of burning wood waste, it should remain in the field to keep the carbon sequestered as long as nature will allow. It's time to stop pretending there are no consequences to burning carbon-based fuels. Support the Climate Commitment Act. Support a livable planet. Vote no on the repeal. Vote no on I-2117. (Resident) Clark County.

Headlines. HPM2.5 and air oxidation. [Researchers reveal relationship between air oxidation and air pollution - Phys.org](#) particulate matter is lower than that of primary particulate matter. The PM2.5 in Lanzhou's atmosphere is mainly from the Hexi Corridor area. PM2.5 and non respiratory infections. [The Impact of PM2.5 on Non-Respiratory Infections: Latest Research Insights - Medriva](#) One of the most pressing global health issues today is the impact of air pollution, specifically particulate matter 2.5 (PM2.5), on human health. PM2.5 and Particulate Monitor. [Precise, cost-effective and stable urban air monitoring technology - Envirotech Online](#) PM10 and PM2.5 to a resolution of 1 ppm. This rugged and reliable The Viar 3000 Series Particulate Monitor measures airborne particulates to PM10 or PM2.5 PM2.5 and Threat to Unborn Babe. [Air Pollution: The Unseen Threat to Unborn Babies - BNN Breaking](#) particulate matter (PM 2.5 and PM 10), nitrogen dioxide, sulfur dioxide, and ozone. These findings are not just numbers but represent the untold. United States. EPA's new PM2.5 "safe" limit of 9 micrograms per cubic meter annually, down from 12. [EPA's Sooty Confusion: Clearing the Air on PM2.5 Regulations](#) American Council on Science and Health. particulate matter as collected by filtration, PM2.5. "Soot" is not In the world of air pollution, soot, and PM2.5 are at opposite trends of the. United States. [Wood and wood waste - U.S. Energy Information Administration \(EIA\)](#) burning power plants burn wood chips with coal to reduce sulfur dioxide emissions. Most of the commercial sector's wood use for energy is for heating. United States. American Academy of Pediatrics. [Climate Change and Children's Health: Building a Healthy Future for Every Child](#) AAP Publications. Disease burden attributable to particulate matter of 2.5 µm or less in diameter (PM2.5) has been found through satellite-derived pollution sensing. United States NASA, Japan. [World's 1st wooden satellite to be launched soon. Why is it significant? - WION](#) "All the satellites which re-enter the Earth's atmosphere burn and create wood which doesn't burn or rot in the vacuum of space. However, it . Why is it significant? The most important thing is that it is a biodegradable material, which means it is environment friendly and the best alternative to non-biodegradable materials which can extinct in the next 2,000 years. [In Space, Wood's Green Triumph! - India Herald](#) The idea behind developing a wooden satellite stems from concerns about the environmental impact of traditional satellites, which burn up upon re-entry. Alaska, Fairbanks. [Study finds home heating fuel is direct source of sulfate in Fairbanks winter air](#) Geophysical Institute. Although wood smoke from space heating is the largest contributor of PM2.5, that smoke is only a minor provider of atmospheric sulfate. Wood burning produces sulfur dioxide, the precursor to sulfate created through atmospheric processes, equal to just 4% of the sulfur dioxide produced. Connecticut and Vermont. [Fire from wood burning stove damages Newton house Sunday evening - Bennington Banner](#) Authorities say the initial call was for a fire contained around a wood burning stove but then it spread through the roof to an extension of the attic. Connecticut. [Fire from wood burning stove damages Newton house Sunday evening - News 12 - Connecticut](#) Colorado. [Editorial - Wood Smoke Reduction Program needs to address community concerns](#) The Rocky Mountain Goat. Province funds wood stove swap; Council miffed by conditions · BC Hydro scraps E-Plus program, forces more wood burning. Florida, Orlando. [Wood facility fire: Operator not authorized for business in Orlando - WESH](#) burning Orlando wood recycling facility 'not authorized' for business According to records obtained by WESH 2 Investigates, there are 231 registered. [Operator of wood recycling facility still burning in Orlando 'not authorized' for busi - YouTube](#) EXCLUSIVE: Operator of wood recycling facility still burning in Orlando 'not authorized' for business there. Iowa, Marshalltown. [Victim suffers 'extensive burns' after Saturday morning garage fire - Times Republican](#) The fire originated in the adjoining wall of a newly installed wood burning stove in the garage. The cause of the fire was determined to be. [One person suffers serious burns during garage fire - KGAN](#) MARSHALLTOWN, Iowa — Flammable liquids too close to a new wood burning stove is blamed for a garage fire that seriously injured one person. [Marshalltown resident hospitalized with 'extensive burns' after garage fire, police say](#) weareiowa.com Investigation shows the fire began after flammable liquids were stored too close to a newly-installed wood burning stove in the garage. [One person suffers serious burns in Marshalltown garage fire | Top Stories | kwwl.com](#) They believe it started in the adjoining wall of a recently installed wood-burning stove in the garage because flammable liquids were stored too close. Michigan, Detroit, and EPA PM2.5 "safe" limit now set at 9 micrograms per cubic meter annually, down from 12. [What new EPA soot rules could mean for Detroit](#) Bridge Detroit. Fine particulate matter is defined as particles that are 2.5 microns or less in diameter (PM2.5). Inhaling PM2.5 is linked to illnesses

like heart. Tennessee, Maury County. [Wood stove fire burns roof of Maury County home - Nashville - WSMV](#) The MCFD said this. Utah, Salt Lake City. [Woman, child hospitalized after being badly burned by campfire in Davis County](#) FOX 13 News. campfire camping wood fire burning firewood camp. Prev Next. Photo by: MGN. File photo: Campfire. campfire camping. West Virginia, Charlottesville. [ETX fire agencies partake in controlled burn in Wood County | cbs19.tv](#) Smoke is expected to begin on Tuesday, Feb. 20 and last until Monday, Feb. 26 in the affected area. [Wood County controlled burn continuing through Feb. 26 - KLTV](#) Smoke will be visible. Canada, Kent. [Plumes of smoke rise in Kent after fire breaks out in metal recycling centre](#) Yahoo News Canada. smoke coming from the facility could be seen for miles and the Too much wood heating P.E.I. government buildings is from unsustainable. United Kingdom, Dulverton. [Dulverton firefighters called to farmhouse incident near Skilgate - West Somerset Free Press](#) smoke logged. Pumps from Bampton and Tiverton were also mobilised to the wood burning stove. More About: DulvertonExmoorDevon and Somerset Fire. United Kingdom, Oxford. [Oxford City Council Moves Closer to Smoke Control Area Expansion](#) Oxford City Council. Within a smoke control area, residents and businesses will still be able to buy and use solid fuel and wood burning stoves/open-fires, provided that. Use an approved wood-burning stove/appliance; Or, use an authorised fuel with an unapproved. China. PM2.5 and impact on child growth. [Impacts of air pollution on child growth: Evidence from extensive data in Chinese counties](#) ScienceDirect.com Mechanistically, PM2.5 impairs child growth via metabolic disruption and financial constraints. Collectively, this study offers empirical evidence. China. PM2.5 down. [Breathe easy - Opinion - Chinadaily.com.cn](#) The key regions must reduce PM 2.5 by 5 percent from 2023 levels, impacting approximately 520 million people and their health. The rest of China. China. PM2.5 and Heavy Metal Exposure. [Park Shinyoung - SciProfiles](#) PM2.5 and Heavy Metal Exposure in Industrial Complexes in Dangjin and Yeosu·Gwangyang." Toxics 12, no. 2: 158. Journal article. Indoor PM2.5 India, Ahmedabad. [Poor air quality on Ahmedabad's electric buses: Study - Times of India](#) The research by IIPH Gandhinagar and Cept University measured the level of particulate matter (PM) 2.5 microns (PM2.5), India, only 32 Indian Cities with clean air. [Only 32 Indian cities had clean air this January, Delhi, Bhagalpur most polluted](#) Down To Earth. "In January 2024, the number of National Clean Air Programme cities whose monthly average Particulate Matter (PM) 2.5 levels surpassed the WHO's daily. India. [PoK: Major unattended forest fires continue to create environmental hazards - Devdiscourse](#) The forest fire has been spreading over large areas and remains unattended, turning hundreds of tonnes of priceless olive wood into ash creating smoke. India, Delhi. [Delhi records 14.7 degrees as minimum temp, AQI in 'poor' category - Daijiworld.com](#) The Indira Gandhi International (IGI) Airport (T3) recorded PM 2.5 levels at 263, which is counted as 'poor' and PM 10 at 142, falling under 'moderate. India, Delhi. [Delhi records 8.6 degrees as minimum temp, air quality 'very poor' - Daijiworld.com](#) In the Anand Vihar area, at 9 a.m., PM 10 levels were recorded to be in the 'severe' category standing over 500 and PM 2.5 reached 420, India, Delhi. [Weather Update: Rain 'Very Likely' In Delhi, Other Parts Of North India; Check IMD Forecast](#) English Jagran. Dwarka Sector 8 witnessed PM 2.5 levels at 341, and PM 10 was at 438. (With inputs from IANS). India, Delhi and Mumbai. [Why winter of 2022-23 in Delhi was cleaner than usual, but Mumbai saw poor air](#) The Indian Express. The PM 2.5 level in Mumbai increased significantly during the stubble-burning period, the paper noted. Under the "normal circulation pattern. India, Delhi versus Mumbai. [Why did Mumbai become more polluted while Delhi skies cleared up last winter? Climate](#) Down To Earth. Particulate Matter (PM) 2.5 levels. This, it elaborated, was followed by the cities of Coimbatore recording an increase in PM 2.5 levels by 28 per. India, Nagpur. [Pollution in Koradi Linked to Nagpur City's Pollution, Claims Mahagenco - Nagpur Today](#) Besides, on that day, due to humid weather conditions, PM-10 and PM 2.5 pollutants in the polluted air coming from Nagpur settled in the area of B.P. India. PM2.5 and Air Purifier. [Gadgets Weekly: HP Envy Move all-in-one PC and more - Deccan Herald](#) Also, they come with Panasonic's nanoe X and nanoe G technologies, which help ensure a healthy indoor AQI by eliminating PM 2.5 particulate matter, Korea, South Korea. [Effects of surrounding environment and student activity on the concentration of particulate](#) ScienceDirect. In this study, the concentrations of indoor and outdoor particulate matter (PM10, PM2.5) in classrooms of twenty

elementary schools in South Korea. Korea, South Korea. [Variations of oxidative potential of PM 2.5 in a medium-sized residential city in South Korea](#) ScienceDirect. In this study, the intrinsic oxidative potential (OP<sub>m</sub>) and the extrinsic oxidative potential (OP<sub>v</sub>) of PM<sub>2.5</sub> were measured using three chemical assays. Nepal, Kathmandu. [Air pollution responsible for premature births, low weight - The Kathmandu Post](#) 2.5 kg), the A recent report has linked exposure to pollutants particularly PM 2.5, PM 10 and NO<sub>x</sub> to spontaneous abortion or miscarriage. Thailand, Bangkok. [Bangkok's Battle Against PM2.5: A Multi-Faceted Approach to Cleaner Air - BNN Breaking](#) Thailand tackles PM 2.5 crisis with the Partner to Green initiative, using satellite imaging to end crop burning. Thailand, Bangkok. [Bangkok Produce and Alliances Spearhead Cutting-Edge Traceability and Satellite Tech to](#) Asia Food Journal. PM 2.5 dust challenge. This initiative encourages farmers to cease the This ensures that the food's origin is not linked to deforestation or burning. Thailand, Bangkok. Crop burning causing PM<sub>2.5</sub> [Tech-Driven Solution Targets PM 2.5 Pollution Crisis - Bangkok Post](#) PM 2.5 dust challenge. This initiative encourages farmers to cease the practice of crop burning in preparation for the upcoming planting season. United States. [How Efficient are Wood-Burning Fireplaces? - Men's Journal | Home Living Handbook](#) Men's Journal. Learn about the trade-offs of heating your home with a wood-burning fireplace. Burning with a renewable resource isn't the same as the click of a button. Are Wood-Burning Fireplaces Efficient? They say that firewood heats you three times: splitting, stacking, and burning. Is it worth it? [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.](#) February 19, 2024. Cons of Wood-Burning Fireplaces. Air Pollution. Start-up Costs. Maintenance Requirements. Fire Hazard. Dependency on Wood Supply and Wood Storage. Regulatory Restrictions. Gas fireplaces require access to a gas line and a source for fuel delivery. But they are as easy to operate as flipping a switch and new models have high-efficiency ratings. Electric fireplaces are best for a small space and they require a stable power source. Though, they are great for apartments, only need a power outlet, and can come with fun lights and artificial crackling sounds. United States. [Market Forces Reducing Vehicle Carbon Emissions - The Maritime Executive](#) [Excerpts edited by RAWSEP for brevity and clarity and relationship to Residents Against Wood Smoke Emission Particulates, a 501c3 nonprofit organization.](#) The Maritime Executive was) founded in 1997 and modeled on the “case study” approach of the Harvard Business Review, Market Forces Reducing Vehicle Carbon Emissions. February 18, 2024. The history of heat-driven engines traces back to 1712 (with development of) the first fire-powered steam engine. These fire engines used dried wood, as fuel. (The) first wood-fired high-pressure steam engine(was developed) in 1769. By early 1800s, wood-fired steam engines provided propulsive power for early railway locomotives and boats that operated on comparatively short voyages between coastal cities and along navigable rivers. The early transportation sector steam engines delivered a calculated energy efficiency of around 4% and (large amounts) of carbon dioxide into the atmosphere. coal replaced wood as the fuel to operate boilers (with higher efficiency). Carbon-free Fuel. An electrical current applied to saline water separates the hydrogen from the oxygen. Dating back into the late 1970s, tests were undertaken using hydrogen as fuel for modified internal combustion engines that emitted zero carbon emissions. Subsequent research of a later time focused on the development of fuel cells that bonded hydrogen to oxygen to produce electric power without combustion, releasing water as the byproduct. In more recent years, engine research has focused on adapting large-scale, internal combustion piston engines<sup>1</sup> to operate on ammonia (NH<sub>3</sub>) and reduce carbon emissions into the atmosphere. Plans are now underway to construct a container ship to be powered by ammonia<sup>2</sup> and tentatively scheduled to enter commercial service by 2026. It is also possible to adapt internal combustion engines intended for maritime propulsion and even commercial aircraft to utilize hydrogen as fuel. several carbon-free propulsive systems incur lower energy storage density. Super-size tugs powered by carbon-free propulsion technologies would initially operate along inland waterways, on North America's Great Lakes and in domestic coastal service.