

# CLIMATE HEALTH NOW



February 25, 2021

David Joe  
Assistant Manager of the Rule Development Section  
Bay Area Air Quality Management District  
375 Beale Street, Suite 600  
San Francisco, CA 94105

Dear Mr. Joe,

**We, the undersigned medical professionals from the Bay Area, respectfully submit this letter to the Bay Area Air Quality Management District in strong support of implementing the best available retrofit control technology (amendment to Rule 6-5) to limit particulate matter pollution. As medical professionals taking care of the babies, children, teens, adults, and elderly people in our community -- many of us also on the frontlines of COVID right now -- we see firsthand the ways in which particulate matter impacts health across all ages. We see especially its impact on already heavily impacted low-income communities and communities of color. We call on you to do the job we can't -- help protect the air our patients breathe and the climate in which they live.**

As medical professionals, the past year's challenges of COVID-19 and poor air quality from wildfires have focused our attention on the health of our lungs. Unfortunately, according to the American Lung Association, the Bay Area experiences the 5th highest year-round levels of air pollution in the entire nation, and that's before you add in the extra burden of pollution from our annual wildfires. However, there is hope for addressing one source of local air pollution, particulate emissions from refineries.

Our lungs are particularly vulnerable to a type of air pollution called particulate matter, or PM 2.5. Vehicles, industrial sources, wood burning, and refinery emissions are the major human-caused contributors to our dirty air. These tiny particles are less than 2.5 microns in size, 1/30 the width of a human hair, and penetrate deeply into our lungs and gain access directly into our bloodstream. They are the main cause of health impacts from air pollution, such as asthma, chronic obstructive pulmonary disease, heart disease and stroke.

Oil refineries contribute 10% of the PM 2.5 pollution in the Bay Area. Here in Contra Costa County, closer to the refineries, these PM concentrations are far greater. The stricter regulation would require two local oil refineries, Chevron and PBF (the former Shell refinery), to reduce their particulate emissions and incorporate "Best Available Retrofit Control Technology." Emissions of PM 2.5 would decrease by 75% by incorporating wet gas scrubbers in catalytic

crackers. Over half of refineries in the U.S. use this wet scrubbing technology, including Valero Refinery in Benicia. Physicians of Climate Health Now, a state wide group of health care professionals advocating for a healthy environment, strongly support the strictest emission limits.

Our patients experience the effects of air pollution daily, especially children and young adults. Long-term exposure to pollution is linked to increased rates of asthma, reduced lung function and lung growth in children. Asthma rates of children in Richmond, a community on the frontline of refinery pollution, are almost twice the level of those in California as a whole (27% vs 15%). Compared to adults, children and infants are more susceptible to harm from inhaling pollutants because they breathe faster, spend more time outdoors and their health is more greatly affected by their environment. In our adult patients, PM 2.5 is linked to premature death, particularly in people who have chronic heart or lung diseases. An estimated 2,000-3,000 people die every year because of PM 2.5 exposure in the Bay Area alone.

Air pollution is a racial justice issue. Frontline Latinx and Black communities are exposed to refinery-emitted PM 2.5 at rates 1.4 and 2.6 times higher, respectively, than the general Bay Area population. These local air quality issues may also contribute to our area's high COVID-19 death rates. A recent Harvard study found that air pollution makes people more susceptible to becoming sickened by and dying from COVID-19.

As physicians and medical professionals, we are entrusted with protecting public health. These statistics describing asthma rates, COVID cases, and heart disease aren't statistics to us. They are our patients. They are our community. The lifetime impact of air pollution cannot be measured only against industry profits. We must give the greatest value to environmental justice and public health and support the stricter regulation.

**On behalf of our patients and families and our collective health and future, we call on BAAQMD to implement the best available pollution-reducing 'scrubber' technology.**

Sincerely,  
Emelina Fa, MD  
Renee Stromsness, MD  
Gina Gregory-Burns, MD  
Kathy Vo, MD  
Diana Nam, MD  
Karen Rembold, MD  
Xochil Galeano, MD  
Emily Watters, MD  
Noriko Yoshikawa, MD  
Poonam Kaushal, MD  
Kim Loda, MD  
Patricia Castaneda-Davis, MD  
Adrienne van Nieuwenhuizen, MD

Cynithia Carmichael, MD  
Annie Kaplan, MD  
Jeff Ritterman, MD  
Amanda Millstein, MD  
Michael Martin, MD  
Kaitlyn Van Arsdell, MD  
Agnieszka Witkowski, MD  
Maria Ansari, MD  
Elizabeth DeLuca, MD  
Alejandrina Rincon, MD  
Deborah Dossick, MD  
Dorothea Ellis, MD  
Somalee Banerjee, MD, MPH  
Cynthia Mahoney, MD  
Janet Perlman, MD  
Lilly Pakawongse, NP  
Carol Weed, MD  
Elizabeth Stewart, MD  
Janice Kirsch, MD, MPH  
Susan Penner, RN, MPA, DrPH  
Evelyn Maldonado, BS  
Ann Harvey, MD  
Kristen Lum, MD  
Katrina Saba, MD  
Agata Wajda, MD  
Rita Lewis, RN  
Omoniyi Omotoso, MD  
Teresa Munoz, MD  
Elizabeth Anthony, MD  
Deborah Chiarucci, MD  
Bret Andrews, DO  
Angelina Crans Yoon, MD  
Erik Metzger, clinical psychologist  
Kalen Hendra, MD  
Kara Percival, MD, MPH  
Celeste Allen, MD  
Noemi Spinazzi, MD  
Laria Phippen, RN  
Payal Desai, MD, MPH  
Jeff Ritterman, MD  
Rohini Haar, MD, MPH  
Jean-Luc Szpakowski, MD  
Nina Hausman, LCSW  
Vibha Gupta, MD

Diane Halberg, MD  
Dwan Pineros, MD  
Zeenat Khan, MD  
Steven Feldman, MD  
Mary L. Williams, MD  
Jasmine Mikami, MD  
Linn Lung, MD  
Karina Maher, MD  
Kimberly Johnson, MD  
Kate Kasberger, MD  
Shella Raja, MD  
Chris LeMaster, MD  
Robert Gould, MD  
Yogi Hendlin, PhD, MSc  
Marjaneh Moini, MD  
Alda Lam, MD  
David Pepper, MD  
Moses Graubard, MD  
Sandra Huang, MD  
Lydia Tinajero-Deck, MD  
Lilly Chen, MD  
Dana Sax, MD  
Mariamawit Tamerat, MD  
Stephanie Fong Gomez, MD, MS  
Jessica Baisley, DDS  
Angela Williams, BSN  
Jessica Baisley, DDS  
Janet Lord, MD  
Jeff Mann, MD  
Heather Whelan, MD  
Thomas Newman, MD, MPH  
Kathy Dervin, MPH  
Erica Leigh, MD  
Kathryn McClellan, MD  
Maria Esteves, BSN  
Molly Burnett, MD  
Robert Inglis, MD  
Jennifer Jaeger, NP  
Meg Whitman, MD