State of California
Air Resources Board

Board Item Summary

Item # 25-1-2: **Public Meeting to Consider a Research Contract with University of California, Berkeley, titled "Reducing Exposure with Air Cleaners and Technology (REACT) in At-Risk Communities"**

Staff Recommendation:

The California Air Resources Board (CARB or Board) staff recommends that the Board approve funding of the proposed research contract with the University of California, Berkeley titled "Reducing Exposure with Air Cleaners and Technology (REACT) in At-Risk Communities."

Note: This item is being considered by the Board at its public meeting to satisfy approval requirements under Government Code section 1091 because Board Member John Balmes and Dr. Neeta Thakur (who is listed as a subcontractor) both hold appointments in the School of Medicine at University of California, San Francisco, and because Board Member Susan Shaheen is affiliated with the same department at the University of California, Berkeley as the contract's principal investigator.

Discussion:

The Bayview-Hunter's Point (BVHP) community is a historically and persistently impacted community that has experienced disproportionate air pollution and health burdens. Mitigation strategies that create protective indoor environmental spaces are critical to reducing exposures and benefiting health. This research contract will evaluate indoor air quality in the BVHP community and ways to improve air quality and health protection. Using an interrupted time series design, the study will evaluate the impact of air filtration devices (cleaners) on indoor fine particulate matter (PM2.5) exposures and respiratory health outcomes. In addition, using a multistage randomized control trial design, the study will assess how inputs like indicators from low-cost PM2.5 sensors and technical assistance can increase the use and effectiveness of air cleaners. In addition, personal behaviors that could impact indoor air quality, such as the frequency of air cleaner use and opening of windows and doors, along with placement of the device within a residence, will be explored. Using segmented regression models, the investigators will estimate how information from indoor air quality monitors, air cleaner use, and targeted assistance affect indoor air quality and health symptoms.

Summary and Impacts:

This is a community-centered study with meaningful partnerships between University of California researchers, local community organizations, and community members. CARB expects to leverage the results to inform communities on best practices to reduce exposures to pollutants in the indoor environment. This will further the Board's goals of improving air quality and reducing public health disparities in BVHP and other overburdened communities.