

# SENATE BILL REPORT

## SB 5225

---

As Reported by Senate Committee On:  
Energy, Environment & Telecommunications, February 8, 2017

**Title:** An act relating to directing the completion of a study of certain environmental impacts, including ultrafine particulate emissions, associated with aircraft traffic in areas impacted by airport operations.

**Brief Description:** Directing the completion of a study of certain environmental impacts, including ultrafine particulate emissions, associated with aircraft traffic in areas impacted by airport operations.

**Sponsors:** Senators Keiser, Miloscia, Saldaña, Kuderer and Hasegawa.

**Brief History:**

**Committee Activity:** Energy, Environment & Telecommunications: 2/01/17, 2/08/17 [DP-WM, w/oRec].

**Brief Summary of Bill**

- Requires the Department of Commerce (Commerce) to study air quality implications from airport traffic.
- Requires the University of Washington School of Public Health (UW) to conduct an assessment of ultrafine particulates in areas of high airport traffic.
- Requires Commerce to complete an analysis based on the UW assessment of rates of exposure and scope of risks in communities near the airport and provide a report to the Legislature.

---

### SENATE COMMITTEE ON ENERGY, ENVIRONMENT & TELECOMMUNICATIONS

**Majority Report:** Do pass and be referred to Committee on Ways & Means.

Signed by Senators Ericksen, Chair; Sheldon, Vice Chair; Carlyle, Ranking Minority Member; Brown, Hobbs, Short and Wellman.

**Minority Report:** That it be referred without recommendation.

Signed by Senator Honeyford.

---

*This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not a part of the legislation nor does it constitute a statement of legislative intent.*

**Staff:** Jan Odano (786-7486)

**Background:** The U.S. Environmental Protection Agency (EPA), under the Clean Air Act (CAA) is required to set National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. Primary standards are established to protect public health, including sensitive populations. Secondary standards protect public welfare and the environment, including visibility, damage to animals, crops, and buildings. NAAQS have been established for six such pollutants, also known as criteria air pollutants, which are: sulfur dioxide, carbon monoxide, nitrous dioxide, lead, ozone, and particulate matter (PM). The standards are measured by volume (parts per million or billion) and micrograms per cubic meter.

In 2012, the EPA revised the standards for PM<sub>10</sub> and PM<sub>2.5</sub> to address short- and long-term exposures to protect adverse health effects that included premature mortality, increased hospital admissions, and development of chronic respiratory disease and PM related visibility impairment. There are no standards for ultrafine particles.

Particulate matter describes particle pollution suspended in the air. Larger particles include dust, dirt, and soot, which are visible to the naked eye. Smaller particles are described as inhalable particles and include PM<sub>10</sub> and PM<sub>2.5</sub>. PM<sub>10</sub> have diameters that are 10 micrometers or smaller (or about four ten-thousandths of an inch), and PM<sub>2.5</sub> are particles smaller than 2.5 micrometers in diameter. Ultrafine particles are those smaller than 0.1 micrometers in diameter. The major sources of PM are motor vehicles, wood burning stoves and fireplaces, dust, construction, outdoor burning, and wildfires.

According to the Washington State Department of Health, PM<sub>2.5</sub> is of concern because the particles can be inhaled deep into the lungs. PM<sub>2.5</sub> has been linked to decreased lung function, increased respiratory symptoms, including asthma, aggravating existing heart disease, and premature death among people with existing heart and lung conditions.

**Summary of Bill:** Commerce, in consultation with the departments of Health and Ecology must complete a study on air quality implications of air traffic at Sea-Tac International Airport. The study must be conducted in two phases.

By September 1, 2019, UW must complete an assessment of ultra-fine particulates in the areas affected by air traffic. The assessment must include monitoring and evaluating concentrations, characteristics and sources of ultrafine particulate matter in areas affected by high volumes of airport traffic. The assessment must also provide a comparison of areas surrounding or directly affected by high volumes of airport traffic to similar locations that are not near an airport.

Upon completion of the UW assessment, Commerce must analyze:

- options to reduce or mitigate aircraft emissions of ultrafine particulates, along with considering costs and feasibility of the options;
- rates of exposure to ultrafine particulates by low-income residents, communities of color, and other communities disproportionately affected by ultrafine particulates;

- risks of ultrafine particulates relative to other types and sources of air pollution and exposure pathways to other environmental pollutants; and
- other direct and indirect environmental impacts to areas near the airport that are attributable to increased air traffic.

By December 1, 2019, Commerce must provide a report to the Legislature summarizing the findings on the prevalence of ultrafine particulates in areas surrounding and directly impacted by the airport. By December 1, 2021, Commerce must provide an updated report summarizing the health impacts of ultrafine particulates in areas near the airport and provide recommendations to mitigate impacts of ultrafine particulates while allowing for continued growth of air traffic at the airport.

**Appropriation:** None.

**Fiscal Note:** Available.

**Creates Committee/Commission/Task Force that includes Legislative members:** No.

**Effective Date:** Ninety days after adjournment of session in which bill is passed.

**Staff Summary of Public Testimony:** PRO: There are health concerns in these areas such as higher rates of lung and heart disease. This study will set a baseline and will give guidance. It will also provide alternatives besides another airport. We first need to understand the real concern. This is a big issue for communities close to the airport. South King County residents bear the brunt of pollution. Environmental stress and poverty can have cumulative effect on health.

**Persons Testifying:** PRO: Senator Karen Keiser, Prime Sponsor; Conner Edwards, Legislative Advocate for City of Des Moines; April Putney, King County; Chelsea Hager, City of SeaTac.

**Persons Signed In To Testify But Not Testifying:** No one.