



AMBIENT AIR MONITORING

Alaska Cruise Ship Initiative

Alaska Department of Environmental Conservation

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www.state.ak.us/dec/press/cruise/cruise.htm

What is Ambient Air Monitoring?

- Ambient air monitoring evaluates the quality of the outdoor air we breathe.
- Monitoring instruments are placed in specific locations to measure the level of harmful pollutants in the air and their potential impact on public health.

Why do we care? What are the Ambient Standards?

- The federal government has established air quality standards for the protection of public health.
- When these standards are exceeded, the risk of respiratory ailments goes up. Extreme levels of exposure (many times the standard) can be fatal. While each person's exposure threshold varies, the standards were established to protect the sensitive segments of the population – children, the elderly, and those with respiratory diseases.
- There are no federal standards to assess haze or visibility. Visibility is not an element of this study.



Juneau Cruise Ship Monitoring – 2000

- DEC designed a monitoring program with the cruise ship industry and concerned citizens to measure the concentrations of sulfur dioxide, nitrogen dioxide, and fine particulates in downtown Juneau.
- The cruise ship industry (NWCA), through a third party contractor, managed three monitoring sites: Capital School park (site 1 on map) Baranof Hotel roof (site 3) and Paradise Lunch and Bakery roof across from Marine Park (site 4). DEC operated a fourth site on top of the Court Plaza building (site 2).
- Monitoring began August 13, 2000 and continued through September.
- Preliminary monitoring results indicate that the ambient pollution levels were below 45% of the ambient air standards.

- While indications are that Juneau does not have ambient air quality problems, sampling did not occur year round nor during the hot, dry months of the cruise ship season. Additionally, there is concern that pollution traveling to the hillside area was not captured in the monitors.

What Happens Next Cruise Season 2001

- The Air Monitoring Work Group has recommended conducting a year-long monitoring program in Juneau to better assess potential impacts associated with cruise ship industry emissions.
- Collected data will establish an ambient air quality baseline for evaluating future degradation or improvements.
- The North West CruiseShip Association has volunteered to fund a majority of the monitoring effort.
- The monitoring site locations may be adjusted to better assess ambient pollutant levels and answer public concerns.
- The work group will explore the possibility of using an OPSIS (remote sensing analyzer) as part of the 2001 study. This device evaluates the average concentration across a sight path, instead of the more traditional, single point analysis.
- The 2001 study design will explore ways to assess visibility impacts in the vicinity of downtown