Ted Stevens Anchorage International Airport
2014 Environmental Section Summary Report

Solid and Hazardous Waste management

Recycling from airport tenants and State of Alaska operations diverted over 300,000 pounds from going into the Anchorage landfill. Cardboard and waste paper recycling saved the State of Alaska close to $7500 in tipping fees alone.

In addition, tens of thousands of pounds of recyclable products such as batteries, scrap metals, reclaimed/reground asphalt and concrete, used oil, printer/toner cartridges, electronics and other materials which would have once ended up in the Anchorage Regional Landfill are now beneficially reused through recycling. Here is a breakdown of weights for those materials:

Recycled batteries =	~4,200 lbs.
Scrap Metal =	~102,140 lbs.
Reclaimed asphalt =	~241,000 lbs.
Toner/Printer Cartridges =	~250 ea.
Electronic Waste =	~1,500 lbs.
Concrete/aggregate =	~12,400 lbs.

During 2014 our waste minimization efforts resulted in the airport generating less than 400 pounds of hazardous waste. Recycling, product substitution and training airport staff on proper identification, handling, and disposal of hazardous and solid waste has contributed greatly to the airport reducing the amount of hazardous materials that is used and disposed by the airport.

Pollution Prevention & Spill Response

During 2014, 29 spills totaling ~475 gallons were reported to the Environmental Section at Ted Stevens Anchorage International Airport (ANC). Most the spills were accidental releases during aircraft refueling operations. The majority of the spills were onto paved surfaces where they had minimal environmental impacts and spill response was immediate in most cases which prevented any contaminates from reaching sensitive environments. The largest spill, ~250 gallons, was the result of operator error when a forklift operator punctured a bulk container (250 gal) of motor oil while staging the containers for loading onto a cargo aircraft.

To further prevent any contamination from entering Cook Inlet or Lakes Hood and Spenard the airport operates three “watershed protection stations” that are designed to capture and recover petroleum contaminates from stormwater discharges. The spill stations contain floating weirs and oil skimmers to recover any oil accumulated behind the weir.

Contaminated Site Investigation and Remediation
The Airport Environmental staff works closely with airport tenants and the Alaska Department of Environmental Conservation (ADEC) to address and resolve issues related to contaminated sites on Airport lands.

The number of contaminated sites on Airport property has steadily declined in the past decade as the parties responsible for pollution of these sites cleanup the contamination to meet standards set forth by the Alaska Department of Environmental Conservation.

Environmental/Health & Safety Training
Airport employees received several hundred man-hours of training related to Environmental Protection and employee health and safety at Ted Stevens Anchorage International Airport in 2014.
Training was offered on topics such as

- Pollution Prevention & Energy Conservation
- Spill Response, Control & Containment
- Recycling & Waste Minimization
- Hazardous Waste Management & Operations (HAZWOPER)
- Hazard Communication Standard (OSHA required),
- 1st Responder Emergency Response (OSHA required)

This training provides Airport employees with the knowledge base to recognize workplace hazards, protect themselves and others, report incidents, accidents, and to work safely and productively. In addition to training provided by the Environmental Section, other airport departments provide classes within their sections to meet OSHA requirements and provide employees with training relevant to their jobs.

Air Quality
Under the Clean Air Act (CAA), the Anchorage airport must comply with regulations related to air emissions. To meet these compliance requirements the airport collects and maintains data on all stationary equipment that may emit regulated air pollutants. This is mainly combustion equipment such as boilers, water heaters, unit heaters, etc. that burn diesel or natural gas as fuel. The emissions from this equipment are calculated based on the run time of the equipment, volume and type of fuel burned and technical data provided by the equipment manufacturer.

During 2014 air emissions from the airport were well below the limits allowed under our Air Quality permit issued by the Alaska Department of Environmental Conservation.

Water Quality
Ensuring the quality of the water bodies around Ted Stevens Anchorage International Airport is one of the primary goals of the Airport Environmental Section. To make sure operations at our airport do not degrade these waters the airport has a comprehensive

Storm Water Pollution Prevention Plan that contains Best Management Practices (BMP's). These BMP's address various types of activities that can lead to water pollution and provide requirements and recommendations to minimize the impacts from those activities.

One of the primary activities that contribute to water pollution at airports around the country is the use of glycol based aircraft de-icing fluids (ADF). Airline operators typically use two types of glycols for de-icing aircraft, propylene glycol and ethylene glycol, which are applied to aircraft to ensure the safety of the traveling public. Glycol left alone to decompose in the environment would become carbon dioxide and water. However, they adversely impact water quality primarily by reducing the available oxygen for aquatic life.

The amount of deicing fluids used at ANC has been relatively consistent over the last several years and that is likely due to having had comparable amounts of snow during the winter. During the 2013-2014 reporting period (Sept-Aug) airlines and ground service providers operating at ANC reported to the Environmental Section that they had applied 530,355 gallons of ADF to aircraft (95% propylene glycol and 5% ethylene glycol). The airport and its tenants continue to make strides to reduce the environmental impact of deicing compounds and incorporate best management practices in order to do so. For example, in ANC's East Air Park tenants must utilize equipment that is outfitted with ADF reduction tools such as forced air, proportional mix nozzles and, low flow nozzles. These same glycol reduction techniques are also employed by aircraft service providers in other areas of ANC's airfield. The more modern equipment reduces the amount of time it takes to de-ice aircraft and uses less glycol which saves the airline operator's money.

At ANC snow from the airside where deicing activities occur is designated as dirty snow (snow potentially mixed with ADF) and snow from parking lots, roadways, etc, is deemed clean snow. The dirty snow and clean snow are placed in appropriate areas (snow dumps) so that meltwater from these snow dumps does not enter Lakes Hood and Spenard. Airside snow dumps are placed in areas where some biological treatment can occur prior to discharge into the storm water drainage system for ANC

If you have any questions regarding this information please contact me at 266-2129

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