

Ted Stevens Anchorage International Airport 2013 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 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 =	~2,610 lbs.
Scrap Metal =	~80,300 lbs.
Reclaimed asphalt =	~1,349,340 lbs.
Toner/Printer Cartridges =	~196 ea.
Electronic Waste =	~1,200 lbs.
Concrete/aggregate =	~15,000 lbs.

During 2013 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 2013, 19 spills totaling ~258 gallons were reported to the Environmental Section at Ted Stevens Anchorage International Airport. 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, ~150 gallons, was the result of operator error (inattentive fueling) while fuel was being transferred between two tanker trucks.

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 2013.

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.

In 2013 the Environmental Section also provided spill prevention and response training for employees of various airlines and other airport businesses. The training presented information on proper spill cleanup techniques and reporting procedures so any spills that do occur at Ted Stevens Anchorage International Airport are quickly and efficiently remediated in compliance with state and federal regulations.

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 2013 air emissions from the airport were well below the limits allowed under our Air Quality permit issued by the Alaska Department of Environmental Conservation.

During 2013 the Airport installed tanks for a fuel additive that will reduce air pollutants from heavy equipment used to maintain runways and airport property. Injecting this urea based fluid into the exhaust stream of the vehicle causes a catalytic reaction which greatly reduces nitrous oxide (NOx) emissions.

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 compounds are quite benign and left alone would become carbon dioxide and water. However, they can impact water quality primarily by reducing the available oxygen for aquatic life.

During the 2012-2013 Winter Season 582,739 gallons of ADF was reportedly applied to aircraft at ANC (80% propylene glycol and 20% 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 all 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.

In addition, snow is separated and designated as airside (snow mixed with ADF) or non-airside and disposed of in the appropriate areas. Airside snow dumps have areas where biological treatment can occur prior to entering the storm water drainage system.

Noise Compatibility Program

ANC has is in the final stages of completing the federally-funded Residential Sound Insulation Program, aimed at reducing noise impacts on Anchorage residents living in areas with significant noise levels. The Program improves the quality of life for residents living near the airport and often increases energy efficiency as well. The Airport's Residential Sound Insulation Program (RSIP) completed its eleventh year of construction activities. During the 2013 construction season 20 homes, 6 multifamily properties and 53 condo unit were retrofit with acoustical windows, doors, attic insulation and

ventilation system improvements to reduce interior sound levels a minimum of 5 decibels. To date, approx 880 residential units have been provided sound insulation, with homeowners benefiting from noise reduction techniques as part of our Residential Sound Insulation Program. Since its inception the Program has allowed the International Airport System to capture 49.9 million in federal dollars dedicated for noise compatibility purposes throughout the nation. The Airport worked with the FAA to obtain permission to send applications to all remaining homeowners within the current approved boundary. At this time the Residential Sound Insulation Program is completing contract work associated with RSIP Bid Packs 16 and 17 and is starting the final close out phase of the Program.

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

Scott Lytle
Airport Environmental Manager