

This is also true from air traffic, and other related activities, such as aircraft maintenance, refuelling, accidental releases of chemicals perhaps from leaking underground storage tanks and spills, de-icing operations, and runway maintenance.

In addition, airports in regions with significant snowfall must deal with the problem of snow disposal. Depending upon the point of origin of the snow collected within the airport, it may contain contaminants such as hydrocarbons, aircraft de-icing fluids, abrasives, salts, and solid wastes.

Munich Airport has implemented a system that collects contaminated water from runway de-icing operations into lined sand/gravel channels, where naturally-occurring soil bacteria break down the glycol before the water is released and seeps into the ground.

In aircraft de-icing operations, the mixture of de-icing agent and melt water is caught in a system of channels surrounding the de-icing areas. It is then collected in large tanks and transported to a recycling plant where the mixture is purified and the de-icing agent is collected for reuse, resulting in a savings of approximately 60% of de-icing agents, while considerably relieving the waste-water sewer system.

In addition, the airport has a system that treats wash waters containing cleansing agents, paints, and heavy metals prior to discharge into the public sewer system.

For its part, **Heathrow Airport** also has a drainage system designed to isolate any fuel or oil spills so that they can be removed from surface water run-off before discharge. Meanwhile, **Swissair**

is collecting industrial waste water from its maintenance facilities and conveying it to a company-owned treatment plant, which is capable of producing water of a quality that can be reused in technical operations.

WASTE MANAGEMENT

Wastes are generated by every sector of the global community and the aviation industry is no exception. Aircraft arrive at airports with large amounts of waste on board. They also result from the manufacturing of aircraft and other vehicles, airport engineering and maintenance operations, fuelling, construction and renovation, office functions, and food services.

normally end up in landfill, to retrieve reusable and recyclable items.

A world leader in successfully tackling the waste management problem is unquestionably **British Airways** which earned approximately £53,000 from various recycling projects in 1992-1993. The airline, which has developed an educational program to promote staff awareness to waste minimization issues, is currently implementing a system in which the weight of wastes removed from **Heathrow** and **Gatwick** is measured.



Swissair recycles collected industrial waste water from its maintenance facilities.

Indeed, waste management involves every department of an airline, airport, manufacturer, or supplier.

At **Heathrow**, where some 60% of the wastes handled at the airport originate from aircraft, management has succeeded in diverting 80% of this cabin waste, which would

As opposed to the traditional system whereby waste contracts were awarded based on a fixed fee for clearing defined areas, the new approach determines payment based on measured quantities of wastes removed. This facilitates the setting of waste reduction targets and provides a clear cost-incentive for waste reduction.