

Cutting the costs of fish processing

This Action Profile outlines the benefits to F Smales and Son (Fish Merchants) Ltd of implementing a low-cost programme of water minimisation. These benefits include:

- ✓ Cost savings of over £31 000/year
- ✓ 44% reduction in water consumption and first place in the Water UK & Environment Agency Water Efficiency Awards 2001



Action

How you can use Envirowise to help your business:

- Register on the Envirowise website at www.envirowise.gov.uk for information about your industry sector.
- Call the Environment and Energy Helpline free on **0800 585794** for more information on water minimisation or visit WaterNet (www.envirowise.gov.uk/waternet).
- Ask whether your business can have a *FastTrack* visit either by calling the Helpline or by visiting the website.

About F Smales and Son (FM) Ltd

F Smales and Son (FM) Ltd employs 200 staff and handles 8 000 tonnes/year of fresh and processed fish at its factory in Hull. The company uses water to clean fish and equipment and decided to implement a water minimisation programme to demonstrate to customers its commitment to good environmental management.

The company's approach

Involving and motivating all staff was key to the programme's success. Staff were informed of the benefits of water efficiency and encouraged to offer ways to reduce water and effluent costs. The programme was led by the company's cost accountant whose action plan and audit of water use resulted in the following:

- **the fitting of 27 water meters to monitor water use throughout the factory;**
- **section managers ensured that cost targets were met and were part of the key performance indicators within the staff appraisal process;**
- **meter readings were taken twice daily by engineering staff;**
- **any significant anomalies in meter readings were highlighted to section managers and progress against targets was reviewed at monthly meetings.**

A significant drop in water consumption was achieved through good housekeeping and simple changes to processes, including:

- **fitting manual triggers to hoses on filleting lines;**
- **installing a self-cleaning freezer;**
- **investing in a high-efficiency temperature air defroster in place of a water spray system;**
- **fitting solenoid valves to the water supply on the conveyor belt;**
- **comparing meter readings from identical machines to identify and correct inefficiencies.**

The company also managed to reduce the strength of effluent leaving the site by:

- **asking staff to reduce the amount of waste entering the drains;**

- **fitting covers to drains on the factory floor to stop fish waste entering them;**
- **monitoring effluent by regularly analysing samples.**

Cost savings and environmental benefits

In 1998, when the water minimisation programme began, annual water consumption was 66 536 m³, with 85% of this volume leaving the factory as effluent. By 2001, this figure had dropped to 37 328 m³, a reduction of 44%*.

The purchase cost for water in 2001 was £0.75/m³ and the disposal cost for wastewater was £0.34/m³, leading to a total annual cost saving of £31 840*.

Annual consumption for 2002 was reduced further to 32 814 m³ - 51% lower than in 1998 when the project began.

Water Efficiency Award 2001

The company's achievement was recognised with a first place in the Envirowise Industry and Business category at the Water UK & Environment Agency Water Efficiency Awards 2001.

FastTrack visits

If you would like Envirowise to help you, see if your business can have a *FastTrack* visit by contacting the Environment and Energy Helpline on the number shown below. A *FastTrack* visit is a confidential, on-site waste review that includes up to a day's free advice on resource efficiency from an environmental expert. The visit highlights practical opportunities to turn waste into profit.

“ By measuring and managing water and effluent across the company we have gained control over a significant area of overhead cost. ”

Mr Ben Smales, Production Director,
F Smales and Son (Fish Merchants) Ltd

*Savings figures quoted here are greater than those stated in *Envirowise Guide GG374* because *F Smales and Son (FM) Ltd* made additional savings in 2001.

Visit the Envirowise website at www.envirowise.gov.uk and e-mail Envirowise with any specific questions (helpline@envirowise.gov.uk)



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Envirowise - Practical Environmental Advice for Business - is a Government programme that offers free, independent and practical advice to UK businesses to reduce waste at source and increase profits. It is managed by Momenta, an operating division of AEA Technology plc, and Technology Transfer and Innovation Ltd. This publication was prepared with assistance from Atkins Environment.



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please contact the

**Environment
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Helpline
0800 585794**