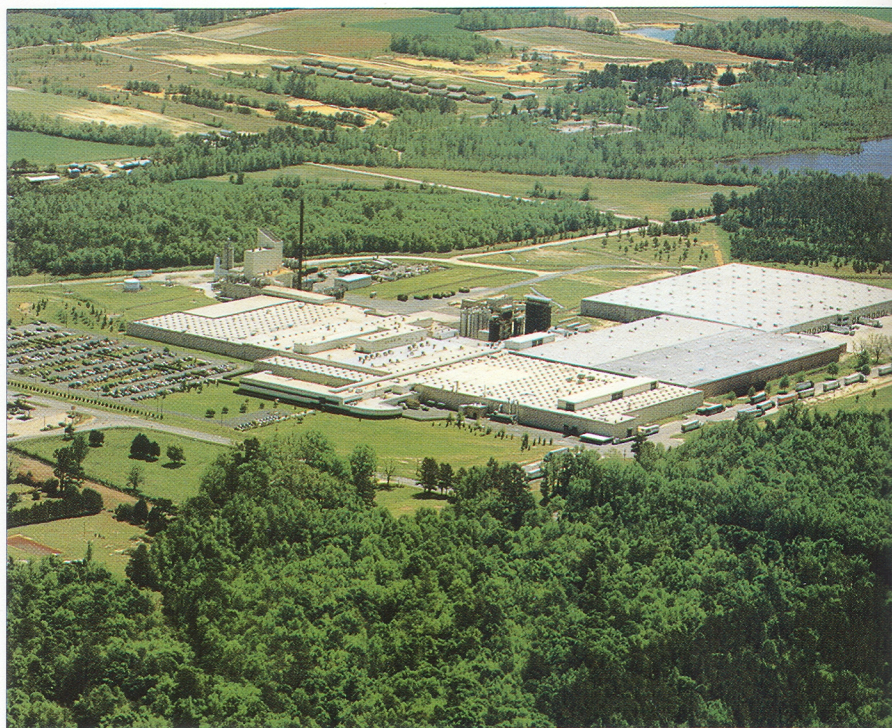


Saving water and waste in food processing



Background

The Campbell Soup Company developed a corporate-wide cleaner production programme emphasizing water conservation, waste minimization and solid waste recycling.

Cleaner production

Three main projects have been established as part of the programme.

- ❖ Recycling of solid waste and scrap material from canned food and the container manufacturing operation. Recycled items include:
 - vegetable waste from soup manufacturing which is recycled as pig feed—the vegetable waste is transferred from a collection hopper to the pig farmer's truck, which is equipped with steam spargers to sterilize and cook the material on-site;
 - recyclable cardboard which is baled and taken to a recycling facility;
 - wooden pallets and ingredient drums, which are returned to suppliers; and
 - scrap stainless steel, 200-litre drums,



and other scrap metals which are sold to a salvage company. In addition, copper and tin plate scrap from can manufacturing are recycled.

Economic benefits

Programme	waste reduction	annual savings
Recycling	70%	\$1 million
Enamel waste	80%	\$50 000
Water reduction	>50%	\$125 000

Advantages

The recycling programme resulted in recycling 70 per cent of the solid waste and scrap material produced. For the period 1989–92, the can enamel waste reduction programme reduced the amount of solvents burned in the boiler by 80 per cent. Of particular note, the water conservation programme resulted in a 50 per cent reduction in water use per production unit between 1985 and 1992, a period in which plant production more than doubled.

The Maxton facility's solid waste recycling effort saves the plant more than \$600 000 a year in landfilling costs. The sale of scrap stainless steel 200-litre drums and various other scrap metals generates approximately \$18 000 annually. Reuse of the copper and tin plate scrap from the can manufacturing operation saves approximately \$375 000 annually. The reduction of enamel and the bulk delivery of thinner and enamel have resulted in an annual saving of approximately \$50 000. The water conservation programme has saved \$125 000 annually in operating costs.

- ❖ Reduction of the amount of enamel and thinner waste in the can manufacturing process:

- an inspection programme was instituted to detect leaks and spills;
- scrapers were installed to dry clean enamelling equipment, thereby eliminating the need for solvent baths;
- enamel was filtered and reused where possible—bulk delivery of enamels and thinners in returnable containers was arranged with vendors.

- ❖ Reduction in water use, focusing on dry cleaning floors and equipment:

- process modifications included installation of a flow meter and elimination of scrap fluming;
- policy changes to reduce water use included a common sense programme of turning water off when it was not needed as well as continuous maintenance and housekeeping instead of once a day.

Enabling technology

All these solutions are common sense solutions which are cost saving and involve little technology or additional labour.

Country

United States

Industry

Food processing

Company

The Campbell Soup Company's Maxton plant manufactures heat-processed canned soups and other canned food products. The company currently produces about 33 million cases of product a year.

Contact

Dennis Krupinski
Campbell Soup Company
Route 2 Box 89
Maxton, North Carolina 28364
United States

Tel: +1 910 844 5631

Fax: +1 910 844 9087