Case Study: Cogeneration – H.J. Heinz of Canada, Ltd.
Location: Leamington, Ontario

Cogeneration System Begins Second Decade of Service

Since most food processing operations require large quantities of steam, they stand to benefit from gas-fired cogeneration installations.

H. J. Heinz of Canada Ltd., Leamington, Ontario, replaced three antiquated boiler units in 1990 with twin US Turbine 3800 gas turbine generator units, employing Allison 501-KB5 turbines. Each turbine produces 3.8 MW of electricity; thermal production consists of steam generated in two-membrane wall D-type waste heat boilers. The boiler units, with duct burners firing, each produce 62,000 pounds of steam per hour at 125 psig. This is sufficient to meet the entire plant's year-round steam requirements, with the exception of a six- to eight-week tomato-processing season, when supplementary boilers are brought on-stream.

Electrical energy generated by the turbines enables the plant to operate at full capacity in an island mode during electrical outages. Excess electrical energy is sold to Ontario Hydro.

"The units have been on-line since the summer of 1990," notes Ed Fittler, facilities manager at Heinz. "We've learned a tremendous amount over the years, and have come to rely on this dependable power source. It has been a major success for the facility."