

# SKF Optimised life of cutting fluids

In order to prevent the deterioration of its machining oils and to save costs, SKF contacted Cetim for two actions: carrying out an audit and training SKF operators to put cutting fluids quality under control. Description of a successful technical and methodological skills transfer!



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**Cetim's asset**

Cetim provides manufacturers with a comprehensive range of audits and training courses structured by sector or by trade. Experts are able to identify sources of malfunction from technical, regulatory and human standpoints.

**OUR CLIENT**

**Corporate name**  
SKF France – Saint-Cyr-sur-Loire plant

**Activity**  
Manufacture of bearings. Approximately 40 millions bearings manufactured per year, 62% of which are exported. Centre of excellence for special automobile bearings, eco-efficient bearings, instrumented bearings and axle boxes

**Workforce**  
1,230 employees

In year 2010, the Saint-Cyr-sur-Loire (France) SKF bearing production site was confronted with a recurrent problem of cutting fluids sustainability. Claire Deschastres-Gurung, Plant Coordinator in Health, Safety and Environment, explains: "At that time, one of our three central fluid systems, i.e. two 30 m<sup>3</sup> cutting fluids reservoirs, was subject to severe bacterial attacks and mould development. It resulted in an emanation of several unpleasant odours and a risk of having to dispose of cutting fluids prematurely". SKF therefore commissioned Cetim specialists to investigate the situation. After conducting

the audit, Cetim proposed an action plan. In addition, around ten operators related to cutting fluids quality/maintenance, received a half-day training on analytical fluid monitoring.

**Risky situations have ended**

Several corrective and preventive measures were taken for the reservoirs which were affected by bacterial attacks: A special device was added to filter out iron from the drill water in the fluid concentrate dilution water supply network. The facility also decided to use statistical process control (SPC) for a more specific

pH and concentrations monitoring. A refrigeration system was set up on the fluid reservoirs. It was also chosen to channel the wash waters and to apply a very strict annual maintenance program. "Since then, bacterial attacks have markedly decreased and we are no longer confronted with critical situations that could significantly reduce fluid life. Given the cost of replacing the content of a reservoir - that can be as much as 10,000 euros, disposal costs included -, the results speak for themselves", adds Claire Deschastres-Gurung. The action plan was transmitted to the various SKF plants. SKF group has reported back on the positive results achieved to Artema<sup>1</sup> member businesses in the sector.

<sup>1</sup>Artema is the French Mechatronic Industries Association.