

GOOD PRACTICES AND TECHNOLOGIES

Reducing WATER FOOTPRINT

El Agua Nos Une – SuizAgua América Latina



Use of osmosis water in cooling system

SDGs addressed: 6.4 Water efficiency



Implementing Company

Nestlé Perú

Sector: 1050 Manufacture of dairy products

Location: Nestlé, Cercado, Lima, Perú
Coord. UTM 8'656,199.24 N 281,326.06 E

Last update: 2015, November



Results

- Reduction on water use 26,050 m³/year



Additional benefits

- Savings of 2,198.78 USD/year for the reduction of industrial water consumed



Supplier references

Supplier: Internal Engineering



Implementing Company

Implementing Company: Nestlé Perú

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Description of good practice

The industrial services area of the D'Onofrio plant of Nestlé proposed a project to use water from an osmosis plant to supply the cooling system for ten evaporative condensers, which previously used water from well.

In the cooling process, the water evaporates and the contained salts are concentrated. The water acquires hardness, which, when reaching certain level, forms a lime film that prevents the optimum operation of the condensers. Water loses its quality and is poured into the drainage system; in its replacement a new volume of well water enters. The osmotized process provides better quality of water, it means water with lower hardness than the well water. With the osmotized water used in the condensers, it is possible to achieve greater cycles of water in the cooling process. With this project the period of use of the water is prolonged, avoiding its continuous discharge to the drainage.

Principal activities: installation of 70 meters of pipes, connection from osmosis plant to condensers, monitoring of water consumption (monthly).



Investment and operational costs

Costs: 25,852.12 USD/12 months



Recommendations and limitations

- The control systems must be in optimal conditions for the water quality monitoring



Applications

Do not apply



References / links

- Agencia Suiza para el Desarrollo y la Cooperación COSUDE, ONG Agualimpia, Empresas socias (2015). Guía de buenas prácticas para el uso eficiente de agua en empresas SuizAgua Andina Perú. In: <http://bit.ly/GuiaBuenasPracticasSuizAguaPeru>