

Maintenance solutions maximised at VMC Philippines

“Like all sugar producers in the Philippines, and across Asia, Victorias Milling Company (VMC) has to continually improve the efficiency of its factory output performance in order to compete in the international market place,” stresses Mr. Arcadio “Boy” Lozada Jr., Vice President for Manufacturing at VMC.

“This year, VMC achieved higher than normal overall time efficiency for its sugar operations. But we feel there are still issues in operations that need to be addressed. For instance, while the combined planned and unplanned stoppages of the factory are close to 10% of the operating time and can be considered par in the industry, we still feel there is a way for us to reduce further the unplanned downtime and at the same time the maintenance-related cost of operations.”

The four key factors in order to achieve this are as follows:

- 1) Properly trained maintenance crew
- 2) Proper tool for equipment overhauls
- 3) Reliable condition monitoring equipment
- 4) Assurance of good quality replacement parts

Enhancing the skills of the VMC crew

“People. They are the core that makes up who we are as a company. We value our people and we recognize the need to continually educate and offer them training”, adds Mr. Lozada. Indeed, this is one of the reasons why SKF is valued by its clients. SKF products offered come with training modules that are practical, such as the bearing maintenance and technical courses, condition monitoring through vibration analysis, and mechanical power transmission lessons, to name a few.

Increasing productivity through product improvements

Bearings are viewed as the heart of the rotating machinery, and so it is important to protect and take care of these. Mr. Lozada continues that “from experience, unsealed or open bearings are normally susceptible to a variety of issues that can affect performance. These include the ingress of dirt and water, lubricant loss, and the ingress of juice from the sugar cane. The latter is perhaps the most damaging as this leaves heavy sticky sugar residue on the inner bearing contact surfaces, and causes severe corrosion, both of which result to bearing failure. The SKF sealed spherical roller bearings avoid these and are very effective in extending the bearing

life and critical machinery maintenance time, which in turn helps increase our productivity, while lowering our bearing replacement costs.”

In addition, the SKF split bearing housings have replaced the single mould housings previously used at VMC. With this, maintenance routines are now made easier because the location part of the housing stays in place at all times; unlike with single moulds, where the housing still needs to be dismantled and removed during shaft/bearing inspection and repair. “Ultimately, this gets our machinery operating again faster, which is another contributor to productivity,” he points out.

Moving forward: Achieving excellence in maintenance

“Although the factory’s maintenance system at present is able to achieve a high level of overall time efficiency, VMC recognizes the value of migrating to a computerized maintenance management system immediately to gain competitive ground. This is to ensure that we achieve the reliability levels being targeted by our group in the next few years,” Mr. Lozada states. “And for this, we are in need of the services of a company with a good track record.”

The SKF Client’s Needs Analysis (CNA) provides a holistic solution to the maintenance operations of a company. This service begins with a review and evaluation of the entire operations system; after which, helps determine the appropriate maintenance strategy and plan, including the critical machinery equipment required, and an optimized spares inventory and supply stream.

Moreover, given VMC’s need to migrate to a more reliable and fast maintenance monitoring system, the Computerized Maintenance Management System (CMMS) is a tool that SKF recommends for the company. With the thousands of machines and machine parts VMC needs to monitor to keep its productivity high, this program is ideal because it makes use of a single system that gives a total overview of the company’s operating condition, and is fast to access and maintain, while giving key people and their respective departments the relevant information they need to enable correct decision making.

A challenge that VMC currently faces is the monitoring of one of its most expensive and important equipment -- its turbo generators. “These electricity generators must be available during the normal operation of our mills and even when we do our annual maintenance procedures during the shutdown season,” emphasizes Mr. Lozada. With an online monitoring system, VMC can get a clear and accurate picture of the condition of the critical components within the turbo generators, minus the time-consuming and costly manual dismantling and checking of all the machine sub-components.

Future looks good

“The future for VMC looks good,” beams Mr. Lozada. The sugar mill in Negros ended the crop year 2012 as the biggest in the Philippines in terms of total annual production of both raw and refined sugar (¹). “At the end of the day, sugar production is still dependent on the tons of sugar cane milled. Environmental conditions change, and every season is a new season affecting the amount of canes we process into sugar and sugar derivatives. These external factors affect our productivity and are difficult to control.

On the other hand, there are factors which also affect productivity and profitability such as our operating and maintenance costs and these we can manage and control. The onus is on us to find the most efficient way to control these.”

Mr. Lozada stressed that SKF’s contribution in the areas of maintenance crew training, and the supply of good quality parts and reliable condition monitoring equipment, has helped achieve this.

“The Computerized Maintenance Management System services is indeed a very promising endeavor to take with SKF, as it promises to reduce maintenance costs by better identifying and planning our maintenance activity, to enable us in retaining knowledge regarding our maintenance needs for specific equipment, and to provide a continuous ‘health check’ on our equipment’s condition. More importantly, it will help sustain the level of training we require for our people.”

¹ Source: Philippine Sugar Millers Association, August 2012

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