



NAMAKWA SANDS 

CASE STUDY

Namakwa Sands

Situation

Namakwa Sands is a heavy minerals mining and beneficiation business that operates along the west coast of South Africa. The site produces three heavy minerals: zircon, rutile and ilmenite. Titania slag and pig iron are produced from ilmenite in a smelter near the Saldanha Bay export harbour. Constructed in 1993/1994 and fully commissioned and operational by 1995, the site took great pains to train its young workforce of approximately 900 employees in accordance with compliance regulations for safety.

They did this so well that the site's three operational areas (the mine, the mineral separation plant, and the smelter) and the company as a whole attained the National Occupational Safety Association (NOSA for South Africa) Platinum 5 Star Status on the NOSA Integrated Safety Health and Environment (SH&E) System in 2002. Following a high-severity incident, however, site leadership recognized the need to transform the company from having a safety policy to having a safety commitment. For workers, that would include owning safety and talking to one another about exposures. For management, it meant visible and felt support for safety.

Solution

In 2003, Namakwa Sands called on Behaviour Based Initiatives, DEKRA Insight's affiliate in South Africa, to integrate a behavior-based safety approach combining employee-driven processes and a "top-down" management initiative with the site's existing safety efforts. The process took on the name MEERKAT (Making the Effective Elimination of at Risk Behaviour a Key Attitude Together) and established separate steering teams for each operational area. Management showed their commitment to safety by establishing a new full-time facilitator position for each steering team. The teams set a goal to train 50% of the all employees and contractors, site wide, during 2004. They surpassed their goal, training 722 co-workers to be safety observers, nearly 80% of the workforce. The process experienced some initial resistance; workers not comfortable being observed. To overcome workers' reluctance to observations, observers adhered to the no name/no blame method, keeping data anonymous.

For their part, management made sure their support for the process was both visible and felt by personally endorsing and participating in the MEERKAT process, along with the

employees and contractors. Managers and supervisors also took part in training sessions focusing on the behavior-based process methods and principles. They rotated onto the process steering teams along with employees from other levels and disciplines. In addition, management tied safety to performance reviews and bonuses, an effective way of communicating the organization's value for safety to those with positions of greater influence.

The effect of these management actions on the process was immediately noticeable. Observation numbers went up 79% in one year, from 3,067 in 2004 to 5,499 in 2005. The observations not only gathered valuable data on exposure and risks, they also provided workers a vehicle, based upon a common vocabulary and standard list of behaviors identified as critical for working safely, to speak to one another about exposures. In 2006 the number of observations rose to 6,346, more than doubling the first year's number. Observations also provided the data necessary to identify barriers and justify their removal, an essential step in mitigating exposures that are outside the workers' control.

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At a Glance:

- Namakwa Sands is part of Anglo Base Metals, a division of Anglo American
- At full capacity, the site treats 14 million tons of ore to produce 200,000 tons of titania slag, 25,000 tons of rutile, 110,000 tons of zircon, and 120,000 tons of pig iron per year
- In 2005 and 2006 Namakwa Sands was recognized for its SH&E Management success with the prestigious NOSCAR award

Results

The MEERKAT process helped reduce the total recordable injuries at Namakwa Sands by 54% in three years. Management's obvious support has helped move the culture toward making safety part of every day life for every employee and contractor. Risk Manager Cliff Timlin appreciated the capacity of the process to integrate with safety campaigns and programs already in place and its ability to engage all levels of the organization. Says Timlin, “The key to the success of the behavior-based process is the way it empowers employees to become actively involved with safety. It is a driver for culture change and business improvement and enables employees and contractors to take ownership for their own safety as well as the safety of others.”

In 2005 and 2006 Namakwa Sands was recognized for its SH&E Management success with the prestigious NOSCAR award from NOSA, the highest achievement that companies participating in the NOSA Integrated Safety Health and Environment (SH&E) System can attain. Timlin adds, “The MEERKAT process has also contributed significantly in reaching this level of performance.”