

**WRITE @ the back**



## Drone makes for safe inspection of inaccessible spaces

Technology from refractory experts CHB Third Party Inspectorate, recently brought in by Skyriders Access Specialists (Pty) Ltd, to inspect a high-vacuum furnace at the SAPREF refinery in KwaZulu-Natal saw the four chambers of the furnace inspected by Elios, a collision-tolerant drone, designed for the inspection and exploration of the most inaccessible places.

What appears to be a regular maintenance inspection can quickly turn dangerous for the most experienced teams, particularly where chemicals or gas are involved. "This has always been a huge consideration for us," says Skyriders marketing manager Mike Zinn.

The scope of the project was to inspect the hard-to-reach places that are extremely difficult or dangerous for humans to enter. The drone enters the tight or even inaccessible space from the outside of the unit while the pilot, the CHB expert Visual Observer (VO) and engineers monitor the inspection via a live feed on a monitor.

Flying from chamber to chamber, the drone picks up any irregularities on the screen. The VO can report immediately if a chamber is safe to enter.

With the drone technology, Skyriders is now able to carry out difficult or high-risk inspections such as those at chemical plants and power generation plants. "The timing, efficiency, and safety initiatives required with chemical plants, in particular, means that sending a machine rather than human being into potentially harmful environments gives us peace of mind, and a huge reduction in potential injuries. Being able to enter difficult places means drones can ensure the areas are safe before general work continues. It's definitely the way forward," Zinn comments.

Skyriders continues to offer the drone option to its South African clients, and is pitching the solution to the rest of the continent. "I believe this exercise proved our worth to SAPREF, and maintained our industry reputation of being able to successfully take on difficult tasks where height or confined space make the risk greater for humans to enter before checks have been carried out," Zinn concludes.

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