# Safe drilling

South Africa-based Colin Rice Exploration and Training launched its safety initiative DrillSafe earlier this year

ven with tightening of safety regulations and legislation, drill sites undoubtedly still pose hazards to operational staff members. To manage the risks involved, staff needs to possess the necessary skills and knowledge to work safely on an active drill site.

In an example of an accident alert from DrillSafe, the Southern African Drilling Industry Safety Forum, a security guard was 'press-ganged' into working as a drillrig assistant because the regular member of the drill crew was sick; the guard was consequently injured in a foot-clamp accident.

The injured man had not undergone any training to prepare him for the work being done, nor was he made aware of the hazards on the drill site or in possession of all the requisite personal protective equipment at the time of the accident. The foot clamp that caused the accident was also modified without approval of the manufacturer.

The accident alert's recommendations confirm that it is crucial for operational staff to be adequately trained and assessed before being allowed to work on a drill site.

Colin Rice Exploration and Training introduced the DrillSafe initiative in May 2013, with the aim of spreading awareness about health and safety issues surrounding the exploration drilling

#### The mission of DrillSafe

- To create an online forum to facilitate the exchange of information between all stakeholders in the exploration drilling industry;
- To disseminate health and safety information for the purposes of creating a safer exploration drilling environment;
- To create a database of explorationrelated incident statistics.

industry, and creating "a health- and safety-conscious community that shares information, learning and a passion for a safer drilling industry".

### **Safety standards**

Colin Rice Exploration and Training, founded by Colin Rice in 2010, offers consulting and training services to the exploration drilling industry. Its courses are aimed at people at every level of an exploration project, including drillers, drill-rig assistants, supervisors, drilling managers and geologists.

Rice became involved with drilling when he emigrated to South Africa in 1984 and became involved in the development of drilling fluids for the exploration drilling industry. He was a founder partner in SA Mud Services, later SAMCHEM, and has been actively involved in many aspects of the southern African drilling industry for the past 29 years.

Throughout his career, he has always had a keen interest in improving the level of understanding of drilling principles through training and was responsible for setting up the National Diploma, Drilling Practice Course at Technikon SA in 1989. He has been delivering drilling- and exploration-related courses at a number of institutions and in a number of southern African countries for the past 23 years. He was instrumental in launching the Drilling Industry Certification Authority of South Africa (DICASA) and serves as chairman of the association.

"In the past five to six years there has been an increasing level of demand for contracting companies to comply with revised mining health and safety

"Unfortunately, all legislation is written for mining operations, and so there has been a very inconsistent application of perceived legal requirements by mining and exploration companies," Colin Rice





Top: Colin Rice delivering a drillingrelated lecture

Above: delegates at a Colin Rice Exploration and Training course

### **Training courses**

Colin Rice Exploration and Training runs approximately five public exploration drill-site safety courses and three to four drilling-methods courses per year. Safety courses can also be arranged for specific companies based on demand.

"This has led to a great deal of

developed a set of drill-site safety

standards that cover the essential

issues on exploration drill sites."

requirements in terms of equipment,

personnel, environmental and procedural

confusion in the industry, and so led by

Kumba Iron Ore, Colin Rice Exploration

The drill-site safety course was launched in 2011, and to date 14 courses have been run with more than 320 delegates attending. The drilling-methods courses have attracted delegates from almost every African country and even some from Russia, Brazil and Argentina.

"Our exploration drill-site safety course was developed in response to overwhelming demand from mining and exploration companies conducting exploration projects. Increasing SHE [safety, health and environmental] requirements from mining and exploration houses has



Colin Rice

"The exploration drill-site safety course was developed in response to overwhelming demand"

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a drill-site visit

Colin Rice supervising ▶ resulted in geologists and safety professionals having to make decisions about safety issues for which they are not necessarily prepared, and so this programme is designed to fill this very real gap," explains Rice.

The course is designed to provide delegates with the necessary understanding of the physical aspects of drilling, drill-rig operation, capacities of drilling equipment, modes of failure and other important foundation information.

The principles learned at the course can be applied to any drilling method

> diamond core drilling, rotarypercussion drilling, dual-tube reverse-circulation drilling and sonic drilling. The exploration drill-site safety course also outlines important legal elements, the principles of risk assessment, identifying drill-site hazards and using safety audits based on standardised checklists. "South African mining

companies have come a very long way in recent years in improving their levels of compliance with legal requirements and some companies now far exceed the requirements. Undoubtedly, training of safety professionals and site staff to identify real hazards on drill sites remains the biggest challenge that we face in South Africa. The safety training programmes that we offer are designed to close this gap," Rice comments. ▼

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"South African

Course notes for Colin Rice Exploration and Training's exploration drill-site safety course



For more information: www.drillsafe.co.za and www.colinrice.co.za

## **Tailored training**

The UK Contractors Group (UKCG) has given official recognition to a safety course for piling supervisors

he Federation of Piling Specialists' (FPS's) Piling Site Supervisor Training Scheme (PSSTS), a two-day course that was developed by health-and-safety and training professionals in 2004, was born out of a need to train and equip ground-engineering supervisors with the specific skills they need for their work.

"We were faced with the requirement for supervisors to be 'qualified', but often this meant sending our guys on generic construction supervisor courses, just to tick the box. Instead of learning about scaffolding, roofing legislation and other situations that were not relevant, we wanted to focus on the things that really affected our work," says Jim De Waele, chairman of the FPS.

Now the course has been recognised as equivalent to the Site Supervisors Safety Training Scheme (SSSTS) by the UKCG, the FPS's largest client group. This confirms that supervisors with PSSTS have been trained to the same high standard as the SSSTS, and have satisfied UKCG requirements.

"PSSTS is more appropriate than the SSSTS for supervisors on piling sites as it gives greater prominence to those aspects of site safety that are particularly important for piling, such as piling platforms and rig guarding as well as auger-cleaning requirements," De Waele adds.

In addition, UKCG has confirmed that the Site Managers Safety Training Scheme (SMSTS), often requested by its members, is only applicable on particularly complex sites and that the body does not require it under its policy for piling site supervisors.

"This clarification by UKCG is important as we [the FPS] are keen to get this message out there and onto construction sites, so that there is no confusion over



Typical rig guarding now in common use

what is and is not applicable on site. We still get some clients insisting that they will only accept SSSTS. It is difficult to understand why they think that a general course is more appropriate on a piling site than a course specially tailored for piling-site supervisors," De Waele comments.

### **Improving industry standards**

During the 50 years of its existence, one of the FPS's core objectives has been to improve standards in the industry, with training forming an important part of its work. FPS was at the forefront of the original Construction Skills Certificate Schemes, developing a number of courses focused on the needs of the piling industry, including the PSSTS.

The FPS's safety course was produced by the piling industry for the piling industry, ensuring that all relevant topics are covered and best practice is understood and adhered to. The course identifies all key legislation necessary to give an understanding of responsibility, accountability, and health-and-safety issues relevant to piling supervisors. Around 40 new candidates sit the course every year, and since it was introduced almost 400 supervisors have benefited from it. •

### Piling industry update by Jim De Waele

FPS members are reporting an increase in orders compared with 12 months ago, and this upturn is consistent across the regions and sectors in which we operate. However, we are still selling too cheap to sustain our industry because of:

- Investment: we need to invest money in training our people.
- Politics: construction is still blighted by protracted politics; the bidding and final account negotiation phases far outweigh the construction period.
- People: we have a lack of young people wanting to work in the trade.
- Technology: things are moving fast how do we respond? Is the client prepared to pay more for the service?



Jim De Waele.

- Eurocodes: we have chairman of the FPS them, but they make some designs more conservative. Other EU countries ignore them, so why don't we?
- Sustainability: it has slipped off the agenda, but it must still be important?