

Part 1: DRILL RIG SAFETY

- An International Opportunity

– by Simon Fitzgerald

Nearly six years ago, around the time I joined the ADIA, a young man suffered a serious injury working on a small auger rig here in Melbourne. Although the full Incident Report has never been released, WorkSafe Victoria asked the ADIA to comment on the incident and table any recommended remedies they believed were appropriate. WorkSafe Victoria also instigated a campaign of visiting drilling contractors' rigs to assess their compliance with the Act. One of their on-going demands is that every rig must have a physical guard that prevents the operators become entangled when the rods (or other down hole components) are rotating.

The contractors in the main are those working in the Geotech/Enviro sector. This sector, unlike their water well or mineral exploration colleagues, has some unique attributes. For example, many of the rigs are small and simple, often made in local engineering workshops. Furthermore, the very nature of geotechnical investigation means that the driller goes 'in and out of the hole' continuously. Actual drilling is only a small component of the job. A good geotech driller concentrates on the quality of his samples - not quantity!

Regardless of the sector, injury accidents are something every operation is very keen to avoid, because – apart from the obvious medical costs, etc... - replacing productive staff of not always easy. Due to the highly variable nature of the conditions in which they work and the objectives of the client, most drillers are a great deal more careful than most 'office bound' observers would appreciate. Regardless, this is not an issue where any of us can be complacent.

What has been happening in this regard overseas ?

In the early 2000's the British Drilling Association released a booklet with some good practical ideas, to assist their members minimise the risk of accidents on drilling rigs. This initiative has been picked up in Europe where today many of the soils rigs manufactured there come with physical guards and other safety enhancements.

In late 2008 a joint initiative by the ACEA Consultants and Australian Drilling Industry Association in Victoria set about creating a simple "Drill Rig Safety Guideline". A seminar which was attended by around 60 drillers and consultants was held in early 2009, and work immediately commenced on the Guideline booklet. This is not intended to have any legal status.

What is being advocated is a systematic approach to better equipment and operational safety. It is designed to encourage both drilling contractors and consultants to review their Safety Management procedures, in particular six issues which we believe ALL sector members would acknowledge are potentially hazardous [in no particular order] - maintenance; rod breaking and handling; entanglement; competency; services, and administrative controls.

Note – the final draft is nearly completed and we expect to hold another industry forum shortly.

Last year I attended a Rig Safety conference in Toronto and delivered a paper detailing our experiences here in Australia, some of the key issues we have identified with illustrations of a few remedies we are activating. This meeting was instigated by a fatal accident to Dan Grieves of Determination Drilling.

The owner – Dan Carrocci – decided that the situation deserved greater awareness and action on behalf of the Industry. Sadly, despite the hundreds of invitations (and phone calls he made) attendance was disappointing. However, one man can make a difference !

The seed was sown and if those who did come continue to promote the need for better rig safety devices and operating systems, the effort will not be in vain. I was disappointed to see the lack of interest from many of the North American rig manufacturers, and one delegate quoted a well-known manufacturer as saying – "That's your guys' problem !!" We've got news for him !!

The location was particularly poignant as Dan and many other delegates had completed their 'Drilling' studies at the Lindsay campus of Sir Stanford Fleming College. Gord Bailey is the programme co-ordinator, and he is rightly very proud of the programmes they offer. On the 2nd evening he presented Dan with a special certificate recognising his foresight and commitment in organising the conference.

Our market, unlike much of Europe and the USA, also has a very active mineral exploration sector and rig designers have released several useful enhancements over recent years that have definitely aided 'safety'. The process goes back to the Automatic Chuck, followed by Top Drives rigs, Rod Make & Break devices, Spindle

Conference organiser Dan Carrocci of Determination Drilling



Guards and the Rod Handler. All of these tools provide excellent benefits, but they are not cheap! For example, a typical Rod Handler costs approx. \$150,000.

The leading global mining companies themselves have also taken a lead by forming a group called EMESRT – Earth Moving Equipment Safety Round Table. This team, which has initially set about better understanding the issues facing the earthmoving sector {and proposed some solutions to the OEM's involved} has now turned it's focus on the exploration drilling sector. 'Guarding' and 'Manual Handling' being two of the items on their menu.

There is no doubt that this important issue is on the "priority" list of many drilling rig manufacturers, drilling contractors and their clients. To ensure that we do not lose sight of the ultimate objective, several association representatives who were attending the Toronto conference got together for the very first time to discuss this issue, along with a range of other matters that were prominent in their regions.

The group included Bill Krasnozon (Canadian Diamond Drilling Assoc.- Eastern); Brian Stringer (British Drilling Assoc.); Larry Gibel (President – National Drilling Assoc. USA); Kathy Butcher (National Groundwater Assoc. USA), and Graham Ennis (Mines Accident Prevention Assoc. of Manitoba). [absent – Dave Gunn, Ontario Ground Water Assoc.]

While this group will be unable to meet regularly, we nonetheless think that sharing issues (and solutions) will help improve drilling operations around the globe, and also help achieve the overall objective raised so passionately by Dan Carrocci at the Toronto conference. It is a sad reflection that it takes the death of a colleague and close friend to galvanise the industry into action.

However, a word of warning: the best designed equipment will never overcome a poor attitude on behalf of the operators. If that were the case, we'd have no road accidents today at all !!



Simon's rare discovery in Canada



International Association representatives

All of the most productive drillers I've observed work at a consistent pace; they arrive at the rig with all the various items they might require; the crew seem to know exactly what to do (for each procedure); tools are put away after use and most importantly the site is kept clean and tidy.

This is not the methodology of someone who has reckless disregard for the safety of myself and his crew! Good operational safety requires a certain attitude of mind, and whilst mechanical devices are useful, they are NOT the most important ingredient in my view! If mechanical solutions were the total answer, I could drastically reduce the road toll in one easy piece of legislation – limit all cars (registered to use our roads) to (say) 120 kph!