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# EXPLOSION PREVENTION IN HAZARDOUS AREAS

13 November  
 @ Graceland Casino, Secunda

08:00	<b>Registration and Refreshments</b>	
08:30	<b>Welcome and Introduction</b>	Eldon Kruger, Pratley
	<b>Master of Ceremonies</b>	Jacques Blignaut
08:40	<p><b><u>KEYNOTE ADDRESS - A suggested management system for explosion protected electrical apparatus used on coal mines</u></b></p> <p>A system is suggested for the control and management of explosion protected electrical apparatus installed on coal mines for the purpose of increased safety of operation.</p> <p>This system outlines the minimum ingredients required to be included in a coal mine's management system for the compliance with the legal requirements and reasonable safe working practices when explosion protected electrical apparatus is used in a coal mine.</p> <p>Although the generic term 'explosion protected electrical apparatus' is used, the most common explosion protected electrical apparatus found on coal mines is 'Flameproof' (Ex 'd') and 'Intrinsically safe' (Ex 'i').</p> <p>The suggested system however does not cover explosion protected diesel equipment but the recommendations made can easily be applied to all types of explosion protected apparatus.</p>	Dario Campetti, Dario Campetti & Associates cc
09:25	<p><b><u>"Making Safe Waves in Hazardous Areas" - Deploying wireless safely</u></b></p> <p>The ubiquity of wireless in the consumer market has raised the expectation of similar performance in the industrial process market and even hazardous areas. This presentation will discuss the various approaches for deploying wireless networks both safely and effectively. Starting from the first transmissions of RF signals in hazardous areas, we will explore chosen protection concepts such as Ex d / Ex e antennas &amp; intrinsic safety, and show you how new design methods &amp; changes in safety standards have allowed today's technology to be more easily and efficiently adopted. A radically new approach to intrinsically safe RF signals has been born; let us show you how to make safe waves in hazardous areas.</p>	John Hartley, Extronics (Extech)
10:10	<b>Refreshments and Exhibition Viewing</b>	
10:30	<p><b><u>ATL's in South Africa</u></b></p> <p>History, Understanding ATL's and Product submission process</p>	Kobus Joubert, Explolabs
11:15	<p><b><u>Intrinsic safety in practice</u></b></p> <p>To cover basic concepts and understanding of intrinsic safety without going into technical detail.</p> <p>To cover a number of practical examples and applications in intrinsic safety, including some general misconceptions.</p>	Roelof Viljoen, MASC
12:00	<b>Lunch</b>	
13:10	<p><b><u>Optimizing Hazardous area classification with improved process input</u></b></p> <p>Effect of process inputs on hazardous area classification. Specifically lower and upper explosion limit calculations and flash calculations</p>	Henk van der Merwe, Apex Process
13:55	<p><b><u>SANS 329: Industrial thermoprocessing equipment – Safety requirements for combustion and fuel-handling systems and area classification in the context of fired heaters.</u></b></p> <p>GNR.79 of 3 February 2012(which republished GNR.735 of 15 July 2009) incorporates a number of SANS standards into the PER, including SANS 329. This regulation is promulgated by the Minister under the powers granted in Section 43 &amp; 44 of the OHS act. The standard specifies requirements for fuel-handling and combustion equipment in terms of design, ordering, construction and operation. The standard applies to gaseous, liquid and solid fuels. The standard mostly focuses on control system requirements, but does also stipulate a number of electrical and mechanical requirements. Section 5.7.1 states that these installations could be considered as non-hazardous areas. Is this statement valid? What do other international standards say about open flames and area classification? There is no simple answer and every case should be judged on merit.</p>	Divan Pretorius, Proconics

14:40	<b>Refreshments and Exhibition Viewing</b>	
15:00	<p><b><u>The maintenance of flameproof equipment in mines.</u></b></p> <p>Equipment when delivered to the mine is in a flameproof condition, and is “mineworthy” or fit for purpose. It is usually when maintenance and repair work starts that the things start to go wrong, often seriously compromising the Ex properties of the equipment and the safety of the mine personnel. The paper would look at the common modes of “failure” of the Ex properties of the equipment and try and make some sense of how we end up there. Ignorance, inadequate training, inadequate spares holdings, laziness etc, and look for the most viable forms of risk mitigation. The paper would express my personal opinions after 39 years of coal mining experience, right from the apprentice and artisan at the coal face to the manufacturer.</p>	Paul Meanwell, Joy Global
15:45	<p><b><u>New VSD/VFD National Standard for Hazardous Locations And The impact it will have on the mining industry</u></b></p>	Henk Zwart, South African Colliery Engineers Association
16:30	<b>Closing Address, Best presenter of the day; Lucky Draw, CPD Points</b>	

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