

**MEDIA RELEASE
JANUARY 2012**

Mitigating fire risk in the quarry industry

Quarry operating environments present a wide variety of fire hazards which can create serious risks to people and property. The hazardous nature of quarrying materials, the heavy equipment and vehicles that are used and the remote locations of many quarry sites, mean that extra vigilance is required to help prevent and prepare for fire.

Inadequate or improper fire protection can expose workers to extreme dangers, lead to potential loss of life and assets and also result in extensive downtime and a possible environmental impact.

Fire protection specialist Wormald encourages those managing quarrying sites to be fully aware of the fire risks, aim to reduce these risks to an acceptable level and monitor and review these risks on an ongoing basis. It is also recommended that when planning and designing a fire protection solution consideration should be given not only to the levels of fire protection required, but to compliance, usability, logistics and the financial investment involved.

Choosing a solution

To identify the most appropriate fire protection solutions for a quarry operation, fire protection specialists consult with a variety of personnel including plant operators, engineers, technical staff and senior management. This helps gain an understanding of the needs and fire hazards of the site and develop the most appropriate fire protection solution to suit the subsequent fire risks. Each risk area may well require its own specialised fire protection solution.

For example, special attention should be paid to the vast number of heavy vehicles, plant and equipment being operated every day on quarry sites, loading and unloading goods and transporting materials. These heavy vehicles have significant ignition/heat sources such as energised wiring and turbochargers. With the potential for onboard goods to add to the fuel load, it's clear that the risk of a fire while in operation can be high.

Specifically for heavy quarry vehicles, mobile plant and equipment, Wormald provides a formalised fire risk assessment process, in accordance with Australian Standard, AS5062-2006: Fire Protection for Mobile and Transportable Equipment. This assessment assists in identifying fire hazards and determining the level of fire risk in order to offer the most appropriate system for a particular vehicle in its operating environment.

When selecting fire protection solutions for a quarry site other considerations include:

- What fire protection systems are already in place?
- What is the environmental impact of existing and new fire protection systems?
- What impact will a new fire protection system have on critical plant and equipment?
- Can the fire protection system be interfaced with power plant control systems to control shutdowns or isolation of relevant plant when necessary?
- What are the ongoing servicing and maintenance requirements of a new fire protection system?
- Can the fire protection system be expanded or upgraded?

Furthermore, based on a risk assessment, fire specialists can determine and recommend the most appropriate fire protection solution for the quarry site. This could encompass a combination of fire protection products/systems such as:

- a) Fire detection and occupant warning systems – advanced systems can integrate heat and smoke detectors with specialised control panels.
- b) Fire sprinkler systems - highly flexible in design and help meet each individual site/building requirements. Sprinkler systems work in conjunction with a detection system and can automatically detect a fire, transmit an alarm and help control a fire.
- c) Water deluge systems - typically used in hazardous environments where fires may spread very quickly or where valuable equipment surrounding the fire needs to be rapidly cooled.
- d) Gaseous fire suppression systems – Wormald's Inergen® and SAPPHIRE™ systems are ideal for mission critical facilities or areas that house sensitive equipment. Both systems have no harmful impact on the environment.
- e) Portable fire equipment - including fire hose reels, fire blankets and a wide range of portable fire extinguishers to suit all classes of fire and fire risk.
- f) Emergency rescue and respiratory protection equipment - breathing apparatus (BA), thermal imaging cameras, gas detection products and other specialised devices are an important part of a quarry's fire protection regime.
- g) Foam systems - used to bring volatile fuels under control. Wormald's foam deployment devices include sub-surface injection systems, top-side foam chambers and remote controlled foam cannons.
- a) Vehicle Fire Suppression Systems - The Wormald Foam Water Spray Vehicle Fire Suppression (VFS) System and the Ansul™ A-101 Vehicle Powder System are both ActivFire listed to be compliant to AS 5062.

Essential fire safety training

Workers at all levels within a quarrying operation need to maintain high skill levels in their emergency response capabilities. Comprehensive emergency response training reduces the number of serious fire incidents and injuries by both preventing fires in the first place and responding quickly if they do occur. Operators of heavy vehicles and equipment must also be fully trained on how to manually activate the vehicle fire suppression systems when necessary and how to use any fire protection equipment located in their vehicles, such as portable fire extinguishers.

Wormald designs, installs, maintains and upgrades fire protection systems for the quarrying industry as well as providing consulting, technical support, engineering advice, training and evacuation plans. Wormald is also a Registered Training Organisation (RTO) and offers a range of fire safety training programs including fire extinguisher training, confined space entry training, breathing apparatus (BA) training, lay flat hose training and first aid training.

For further information on Wormald's services, call 133 166 or visit www.wormald.com.au.

-Ends-

Media - for further information please contact:

Claire Smith or Corrina Anderson, Write Away Communication + Events

Ph: 02 9978 1400 Email: claire@writeaway.com.au, corrina@writeaway.com.au

Claire Hartley, Wormald

Ph 02 9638 8577, Email: clhartley@tycoint.com

About Wormald

Wormald is Australasia's leading provider of fire protection solutions and has been protecting people and property since 1889. Operating in nearly 40 locations throughout Australia, Wormald designs, manufactures, installs and services fire detection and protection equipment to a wide variety of industries including building and construction, mining, healthcare, military, oil & gas, leisure management, corporate, education and IT&T. Wormald also provides a comprehensive range of fire services from engineering advice to fire safety training. www.wormald.com.au

About Tyco Fire Protection Services Asia Pacific

Tyco Fire Protection Services, Asia Pacific (TFPS APAC) is a business segment of Tyco International Ltd. Its major brands include Wormald, DBE, Thorn Security, Simplex Time Solutions, Exelgard and GAAM Emergency Products. Throughout the Asia Pacific region, TFPS employs approximately 4,000 staff in nine countries and its products are used to prevent fires, safeguard firefighters and protect people and property.