

VESDA Customer Success Story

• Australian Equine and Livestock Events Centre

End User Replaces Non Performing Point Detection System

“ We were impressed by the VESDA VLI’s detection effectiveness. The VESDA system has now been installed and operational since mid March 2011 and is meeting our regulatory requirements whilst providing effective detection despite the challenging conditions of our venue. ”

– Mike Rowland
Acting Venue Manager
Australian Equine and Livestock Events Centre

The Australian Equine and Livestock Events Centre (AELEC) is owned by the Tamworth Regional Council and was opened in 2008 as a state of the art facility located in the major regional hub of Tamworth, NSW Australia.

The development was designed to provide facilities for the promotion of Australia’s equine industry and world-class live stock events including:

- Showjumping
- Rodeo
- Cutting
- Miniatures
- Hacking
- Campdrafting
- Ponies
- Alpacas
- Dressage
- Team Penning
- Harness
- Dogs

In 2010, more than 200 event use days were catered for including 12,230 head of cattle, 5,321 horses and 4,651 individual competitors.

The AELEC facility was originally required to have a sprinkler system installed to meet the ‘deemed to satisfy’ building regulatory requirements for the Class and size of construction.

In view of the type of construction and operation it was recommended that an ‘Alternate Engineered Solution’ be installed to meet the regulatory performance requirements of the Building Code of Australia (BCA) that would remove the need for the sprinkler system. A suitably qualified fire consultant was engaged to design an alternate solution to meet the ‘Performance’ requirements of the BCA.



Australian Equine and Livestock Events Centre

Operation starting in 2008

Location:

Tamworth, New South Wales - Australia

Industry:

Cultural/Heritage

Installation Partners:

- Mecelec Design And Management Pty. Ltd.
- Dynamic Fire Pty. Ltd. - Tamworth

Solution:

- VESDA VLI (Industrial Detector)

Benefits:

- Very early warning smoke detection
- Tolerance of dusty, harsh and dirty environments
- Easy installation and maintenance



VESDA[®]
by **xtralis**[™]

VESDA Customer Success Story

⚡ Australian Equine and Livestock Events Centre

The system would need to adequately perform in various environmental conditions, including high levels of dust from active events and varying airflow patterns resulting from the self ventilated building design as well as facilitating evacuation requirements. An analogue addressable point detection system with a combination of Heat and Ionisation point detectors was ultimately installed supported by extinguishers and hydrants.

The original system as designed and installed was problematic with constant nuisance alarms and maintenance faults leading to unnecessary costs to the client and the eventual unworkability and disablement of the system. The unsuitability of ionisation point detectors mounted at heights above the occupied areas of up to 18 metres (60 ft.) virtually guaranteed the system would not meet the 'Performance' requirements of the BCA. The problematic performance of the installed detection system led to enquiries to investigate and design a more suitable fire detection system for the facility.

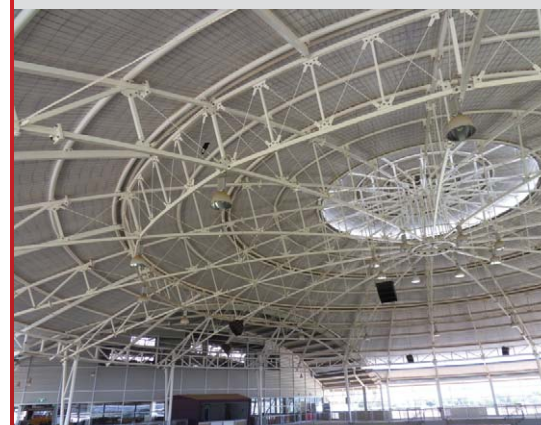
Mecolec Design and Management Pty. Ltd. were engaged as independent consultants to carry out this investigation. The conclusion of the investigation was that the existing smoke detection system was inappropriate for this application. Recommendations for an appropriately installed aspirating smoke detection (ASD) system were presented and accepted.

Mecolec's design proposal coincided with a new ASD product being developed by Xtralis which is particularly suited to this type of environment. A suggestion was made that this would be an ideal opportunity for a field trial. Discussions were held with Xtralis and AELEC operators where a design was prepared by Xtralis for the new ASD system using the VESDA VLI (Industrial detector).

The facility's high ceiling areas were adequately addressed by VESDA VLI since the detectors were located at ground level whilst the extended pipe capability provided a concentrated level of detection coverage. VLI's Intelligent Filter, Inertial Separator, Secondary Filter and Clean Air Zero all combined to make VLI a perfectly suited solution to address the environmental challenges of this facility. Remote monitoring requirements were also addressed thanks to VLI's BACnet over Ethernet connectivity.

Seven VESDA VLI detectors in total were installed by Dynamic Fire; a local fire company based in Tamworth, and tested using a variety of real test fires. The VESDA VLI detection was very effective, but more importantly the original problematic system issues experienced with dust had been eliminated. The VESDA VLI system has now been installed and operational since March 2011.

The installed VESDA VLI system now not only meets the regulatory 'Performance' requirements but will also continue to provide effective smoke detection in this difficult environment as well as providing for ease of maintenance and reduced total cost of ownership for its service life.



www.xtralis.com

The Americas +1 781 740 2223 **Asia** +852 2916 8894 **Australia and New Zealand** +61 3 9936 7000
UK and Europe +44 1442 242 330 **Middle East** +962 6 569 1083

The contents of this document are provided on an "as is" basis. No representation or warranty (either express or implied) is made as to the completeness, accuracy or reliability of the contents of this document. The manufacturer reserves the right to change designs or specifications without obligation and without further notice. Except as otherwise provided, all warranties, express or implied, including without limitation any implied warranties of merchantability and fitness for a particular purpose are expressly excluded. This document includes registered and unregistered trademarks. All trademarks displayed are the trademarks of their respective owners. Your use of this document does not constitute or create a licence or any other right to use the name and/or trademark and/or label. This document is subject to copyright owned by Xtralis AG ("Xtralis"). You agree not to copy, communicate to the public, adapt, distribute, transfer, sell, modify or publish any contents of this document without the express prior written consent of Xtralis.

Document: 20448_01

VESDA[®]
by  **xtralis**[™]