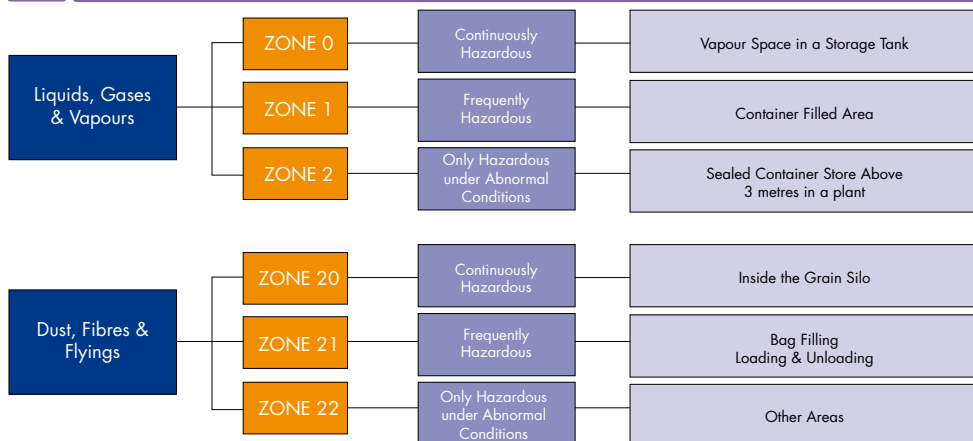




TECHNICAL - HAZARDOUS AREA CLASSIFICATION



EXPLOSION PROTECTION TECHNIQUES IN AUSTRALIA

Explosion Protection Techniques in Common Use in Australia

Type	Description	Method		Application	Aust. Standard for Manufacture	Aust. Standard for Installation	Permitted in area Classification
Ex i	Intrinsic safety	Energy limitation		Instrumentation & process control equipment.	AS 2380.1, AS 2380.7, AS/NZS 60079.0 AS/NZS 60079.11	AS/NZS 3000 AS/NZS 2381.7	Zone 0 Zone 1 Zone 2
Ex d	Flameproof	Containment		Power equipment, high energy switching & HID lighting.	AS 2380.1, AS 2380.2, AS/NZS 60079.0 AS/NZS 60079.1	AS 3000 AS 2381.1 AS 2381.2	Zone 1 Zone 2
Ex e	Increased safety	Avoidance of ignition source		Fluorescent lighting, junction boxes, marshalling boxes (sparking or overheating must not occur).	AS 2380.1, AS 2380.6, AS/NZS 60079.7 AS/NZS 60079.0	AS 3000 AS 2381.1 AS 2381.6	Zone 1 Zone 2
Ex n	Non-sparking	Avoidance of ignition source		Zone 2 only. Lighting & junction boxes. Cannot be used with internal components used with arc or spark	AS 2380.1, AS 2380.9, AS/NZS 60079.0 AS/NZS 60079.15	AS 3000 AS 2381.1 AS 1076.7	Zone 2
Ex v	Ventilation	Dilution		Mechanical ventilation of an area to remove or reduce the hazard.	AS 1482	AS 3000 AS/NZS 2381.1	Zone 1 Zone 2
Ex p	Pressurised enclosure	Exclusion of the hazard		Control cubicles instrumentation and electric motors.	AS 2380.4 AS/NZS 60079.4	AS 3000 AS/NZS 2381.1	Zone 1 Zone 2
EX pD	Pressured enclosure	Exclusion of the hazard		Control cubicles instrumentation and electric motors.	AS/NZS 61241.4	AS 3000, AS 1076, AS/NZS 61241.1.2	Zone 21 Zone 22
Ex pl	Purged enclosure	Exclusion of the hazard		As with Ex p above.	AS 2380.4 AS/NZS 60079.4	AS 3000 AS 1076 AS/NZS 2381.1	Zone 1 Zone 2
EX s	Special protection	Proved by test unable to cause ignition		Special Equipment. Bi-pin Luminaries for Zone 1.	AS 1826	AS 3000 AS/NZS 2381.1 AS 1076.8	Zone 0* Zone 1* Zone 2*
(DIP) Ex Td	Dust-excluding ignition-proof	Exclusion of the hazard		All electrical equipment.	AS/NZS 61241.1.1	AS 3000 AS/NZS 61241.1.2	Zone 20** Zone 21 Zone 22

Notes: The Australian Wiring Rules AS 3000 applies to all installations.
Section 9 of AS 3000 specifically refers to AS 2381 for the special requirements for hazardous areas.

* Ex s must be specifically ce tified or a particular zone e.g. Zone 0 etc.

** Ex Td must be specifically ce tified or Zone 20.

