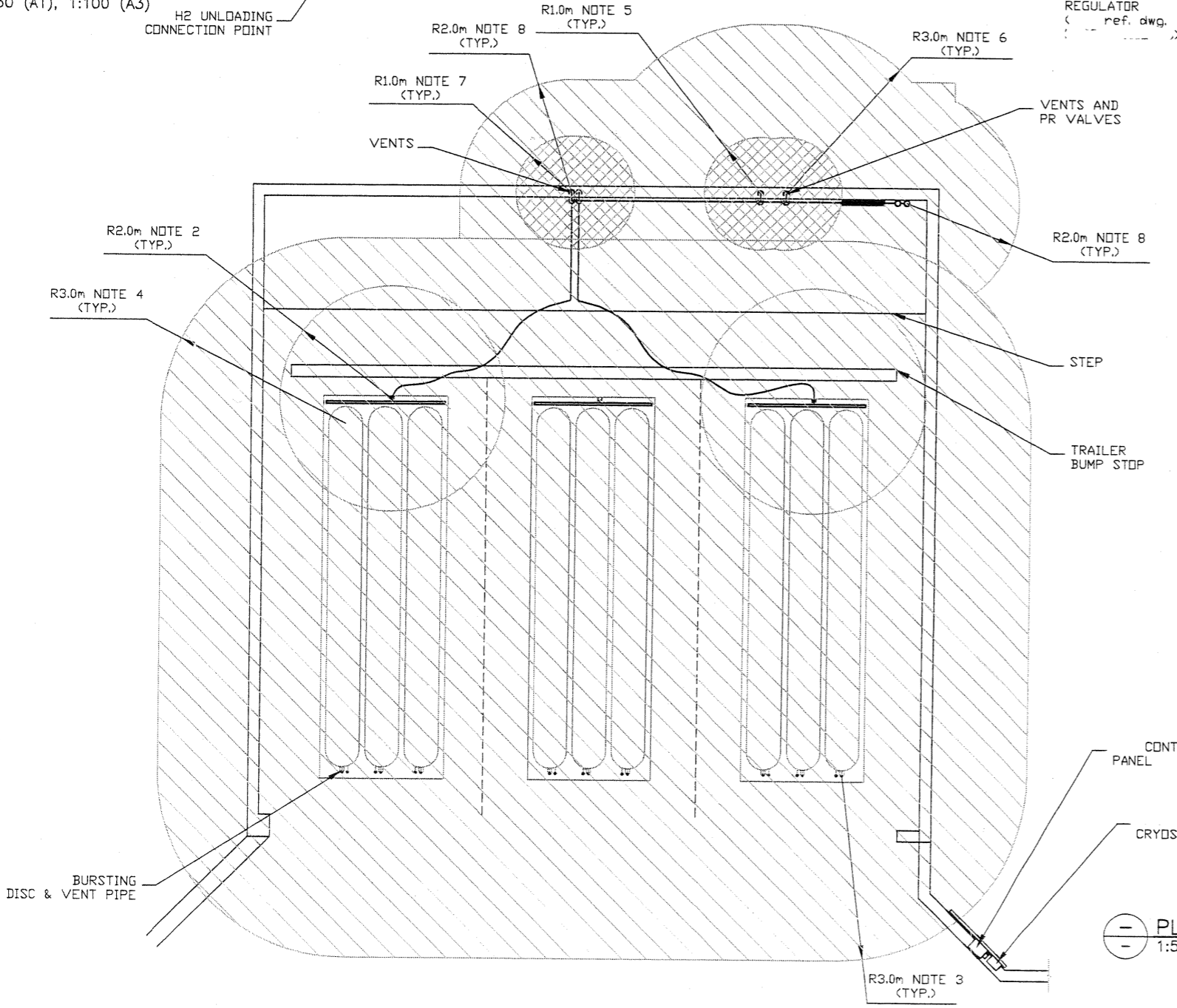


ELEVATION  
1:50 (A1), 1:100 (A3)

NOTES:

- HAZARDOUS AREA CLASSIFICATION TO AS/NZ 2430.3 2004 TO BE READ TOGETHER WITH HAZARDOUS ATMOSPHERE DATASHEET (Ref. SHT2).
  - ZONE 0 FLAMMABLE ATMOSPHERE IS LIKELY TO EXIST CONTINUOUSLY.
  - ZONE 1 FLAMMABLE ATMOSPHERE IS LIKELY TO EXIST UNDER NORMAL CONDITIONS.
  - ZONE 2 FLAMMABLE ATMOSPHERE IS LIKELY TO EXIST UNDER ABNORMAL CONDITIONS.
- ZONE 2 - 2.0m SPHERE AROUND PIPING CONNECTION POINT.
- ZONE 2 - 6.0m DIAMETER CYLINDER, 8.0m ABOVE EXIT POINT AND 1.0m BEHIND.
- ZONE 2 - 3.0m EXTENDING IN ALL DIRECTION FROM CYLINDER.
- ZONE 1 - 1.0m IN ALL DIRECTIONS FROM THE VENT.
- ZONE 2 - 2.0m DIAMETER CYLINDER EXTENDING TO GL. IN FRONT OF EXIT POINT AND 1.0m ABOVE EXIT POINT OF PRESSURE RELIEF VALVE.
- ZONE 1 - 1.0m IN ALL DIRECTIONS FROM VENT.
- ZONE 2 - 2.0m IN ALL DIRECTIONS AROUND PIPING, VALVES AND CONNECTION POINTS.



PLAN  
1:50 (A1), 1:100 (A3)

Rev	Description	App	Date
B	AS BUILT		04/08/05
A	DRAFT		17/06/05
XRef's	Tab	Designed	A.W.
CAD File		Drawn	J.S.
Scale	AS SHOWN (A3)	Checked	G.F.
Original size	A1	Approved	
Status	DRAFT	Date	17/6/05

Project  
**HYDROGEN TRAILER BAY**

Title  
**HAZARDOUS ATMOSPHERE ZONES**

Drawing Number  
**M-001 SHT1/2**

Rev  
**B**

NOTE:

1. HAZARDOUS AREA CLASSIFICATION TO AS/NZ 2430.3 2004 TO BE READ TOGETHER WITH HAZARDOUS ATMOSPHERE ZONES DRAWING (Ref SHT1).

# HAZARDOUS ATMOSPHERE DATA SHEET

HYDROGEN TRAILER BAY

Penrose

Rev.	Description	By	Checked	Approved	Date
A	Draft - For Client Review	A Williams			20/06/2005

Rev	Plant Area or Equipment Item			Flammable Material							Process Conditions		Ventilation	Source of Release		Hazardous Area Distances						Code Ref. AS/NZS 2430.3.4 2004	Comments		
	No.	Name	Location	Name	Volume	B. Pt. (°C)	Fl. Pt. (°C)	Auto lg.n Temp. (°C)	LEL (% by Vol.)	Vap. SG (Air = 1)	Elec. Equip. Class.n to AS 2380.1	Temp. (°C)		Press. (kPa.g)	Ref. AS/NZS 2430.3.1 2004 App. B	Description	Grade AS/NZS 60079.10 2004 Sect2.7	Zone 0		Zone 1				Zone 2	
																		Horiz.	Vert.	Horiz.	Vert.			Horiz.	Vert.
1	Hydrogen Trailer (6 x H <sub>2</sub> Cylinders)	Hydrogen Trailer Bay	Hydrogen	1600 m <sup>3</sup>	-253	N/A	570	4	0.069	T1/ IIC	Ambient	15600	Adequate	Piping threaded/flanged connection & joints	Secondary		-	-	-	-	2m	2m	Clause 6.2.3	Pressures greater than 5000kPa	
			Hydrogen	1600 m <sup>3</sup>	-253	N/A	570	4	0.069	T1/ IIC	Ambient	15600	Adequate	Bursting Disc	Secondary		-	-	-	-	6m	8m + 1m	Clause 6.2.3	Maximum discharge rate 50 - 100 m <sup>3</sup> /h	
			Hydrogen	1600 m <sup>3</sup>	-253	N/A	570	4	0.069	T1/ IIC	Ambient	15600	Adequate	Cylinders	Secondary		-	-	-	-	3m	3m	Clause 6.2.6	Pressures greater than 600kPa	
2	Hose Line Vent	Hydrogen Trailer Bay	Hydrogen	N/A	-253	N/A	570	4	0.069	T1/ IIC	Ambient	15600	Adequate	Hose line Vent	Primary		-	-	1m	1m	-	-	Clause 6.2.3	Operating pressure, greater than 700kPa	
3	Hydrogen bay pipe-line PRV/Vent	Hydrogen Trailer Bay	Hydrogen	N/A	-253	N/A	570	4	0.069	T1/ IIC	Ambient	15600	Adequate	Pressure Relief Valves / Vent	Primary / Secondary		-	-	1m	1m	6m	8m + 1m	Clause 6.2.3	Zone 1, Operating pressure greater than 700kPa. Zone 2, Maximum discharge rate 50 - 100 m <sup>3</sup> /h	
4	Pipe-work and valves	Hydrogen Trailer Bay	Hydrogen	N/A	-253	N/A	570	4	0.069	T1/ IIC	Ambient	15600	Adequate	Pipe connections and valves	Secondary		-	-	-	-	2m	2m	Clause 6.2.3	Pressures greater than 5000kPa	

Rev	Description	App	Date
B	AS BUILT		04/08/05
A	DRAFT		17/06/05
XRef's	Tab	Designed	A.W.
CAD File		Drawn	J.S.
Scales	NTS	Checked	G.F.
Original size	A1	Approved	
Status	DRAFT	Date	17/6/05

Project  
**HYDROGEN TRAILER BAY**

Title  
**HAZARDOUS ATMOSPHERE DATA SHEET**

Drawing Number  
**M-001 SHT2/2**

Rev  
**B**