FirePro. Reinventing Fire Suppression

LITHIUM-ION BATTERY RISK

25/05/2022

Rev: 22.1

CLIENT NAME	Penske Waitsia Stage 2
Risk Description	BESS generator enclosure
Constructed from	steel & SS

☑ Class A ☑ Class B ☑ Class E ☑ Class D ☐ Class F

GROSS DIMENSIONS	Not Used		Not Used		Not Used		Vol Entered	
		x		x		=	72.00	m³
Deductions from Gross Volume - m³ =								m³
Leakage Allowance without additional Agent =							0.20	m²
NET Volume used for Calculation =							72.00	m³
PRIMARY AGENT DISCHARGE =							9,360	g
Secondary Agent Discharge =							Not Required	

Model	L2 (mm)	L3 (mm)	Stream (mm)	Agent Qty	Concentration Primary	Concentration Secondary	Primary Quantity	Secondary Quantity
FP-0020	0	0	1000	14	-	-		
FP-0040	0	0	1000	25	-	-		
FP-0080	0	0	1000	48	-	-		
FP-0100	0	200	1000	61	-	-		
FP-0200	0	400	2000	118	-	-		
FP-0500	100	1000	2000	330	-	-		
FP-1200	0	1500	3500	756	-	-		
FP-2000	0	1500	3500	1,200	-	-		
FP-3000	600	2000	3500	1,830	-	-		
FP-5700	600	2000	8400	3,363	10,089	-	3	

Total Concentration	10,089	-
Required Concentration	9,360	-
% Required Concentration	107%	

☑ Design Calculation has been Confirmed

☑ FirePro Units have suitable STREAM length for Risk Area Coverage

☑ Leakage compensation made in Primary Discharge

☐ Additional HOLD time Required for the risk

Lithium-Ion Battery Room Design Notes

Pre-Engineered Design Calculation

CALCULATION OF VOLUME : Calculation is based on NET Volume with deductions for any Objects that occupy volume within the protected space. This covers fixed condensed aerosol extinguishing system units intended for total flooding applications. AS 4487 and KIWA Test 161000995.

Minimum Extinguishing Factors (mef) 130 X 1 = 130

APPROVED

Prepared By:	Company
RJM	FSE

- L2 is the thermal clearance required where the temperature of the discharge is less than 200° C
- L3 is the thermal clearance required where the temperature of the discharge is less than 75° C