

DOCKETED	
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Consequence Summary Report

Workspace: 712-004-Compass BESS-v0

Study: Study

Summary Basis

These tables will only report global values set in the parameters. Values that are modified in the study tree will not be reported.

The report is context sensitive, and filters up to the study level. You will need to generate multiple summary reports if you have multiple studies in your workspace.

Discharge Results (after atmospheric expansion)

Path	Scenario	Weather	Peak Flowrate [kg/s]	Temperature [degC]	Liquid mass fraction in material [fraction]	Droplet diameter [um]	Expanded diameter [m]	Velocity [m/s]	End time of release [s]
Study\MP2XL BESS \Post-Combustion \UL9540A Module Test based Release (7-cells propogation)	UL9540A module (7-cell) Total Vent Gas (TVG) release (flammable)	AT-18.3C - WS-1mph h-RH-55	0.001153 76	-17.7219	0	0	0.001638 6	278.196	2190.6
		AT-18.3C - WS-5.1mph h-RH-55	0.001153 76	-17.7219	0	0	0.001638 6	278.196	2190.6
		AT-18.3C - WS-10mph h-RH-55	0.001153 76	-17.7219	0	0	0.001638 6	278.196	2190.6
		AT-18.3C - WS-1mph h-RH-55	0.001153 76	-17.7219	0	0	0.001638 6	278.196	2190.6
		AT-18.3C - WS-5.1mph	0.001153 76	-17.7219	0	0	0.001638 6	278.196	2190.6



		ph- RH-55							
		AT-18.3C - WS-10m ph- RH-55	0.001153 76	-17.7219	0	0	0.001638 6	278.196	2190.6
	UL9540A module (7-cell) Carbon Dioxide (CO2) release (IDLH)	AT-18.3C - WS-1mp h-RH-55	0.001153 76	-17.7219	0	0	0.001638 6	278.196	2190.6
		AT-18.3C - WS-5.1m ph- RH-55	0.001153 76	-17.7219	0	0	0.001638 6	278.196	2190.6
		AT-18.3C - WS-10m ph- RH-55	0.001153 76	-17.7219	0	0	0.001638 6	278.196	2190.6
	UL9540A module (7-cell) Total Vent Gas (TVG) 10-min release (flammab le)	AT-18.3C - WS-1mp h-RH-55	0.004212 38	-17.7219	0	0	0.003130 97	278.196	600
		AT-18.3C - WS-5.1m ph- RH-55	0.004212 38	-17.7219	0	0	0.003130 97	278.196	600
		AT-18.3C - WS-10m ph- RH-55	0.004212 38	-17.7219	0	0	0.003130 97	278.196	600
	UL9540A module (7-cell) Carbon Monoxide (CO) 10- min	AT-18.3C - WS-1mp h-RH-55	0.004212 38	-17.7219	0	0	0.003130 97	278.196	600

	release (IDLH)								
		AT-18.3C - WS-5.1m ph- RH-55	0.004212 38	-17.7219	0	0	0.003130 97	278.196	600
		AT-18.3C - WS-10m ph- RH-55	0.004212 38	-17.7219	0	0	0.003130 97	278.196	600
	UL9540A module (7-cell) Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C - WS-1mp h-RH-55	0.004212 38	-17.7219	0	0	0.003130 97	278.196	600
		AT-18.3C - WS-5.1m ph- RH-55	0.004212 38	-17.7219	0	0	0.003130 97	278.196	600
		AT-18.3C - WS-10m ph- RH-55	0.004212 38	-17.7219	0	0	0.003130 97	278.196	600
Study\MP2XL BESS \Post-Combustion\1- Tray Release (112- cell propogation)	1-Tray Total Vent Gas (TVG) release (flammab le)	AT-18.3C - WS-1mp h-RH-55	0.007911 5	-17.7219	0	0	0.004290 86	278.196	5111.4
		AT-18.3C - WS-5.1m ph- RH-55	0.007911 5	-17.7219	0	0	0.004290 86	278.196	5111.4
		AT-18.3C - WS-10m ph- RH-55	0.007911 5	-17.7219	0	0	0.004290 86	278.196	5111.4
	1-Tray Carbon Monoxide	AT-18.3C - WS-1mp	0.007911 5	-17.7219	0	0	0.004290 86	278.196	5111.4



	(CO) release (IDLH)	h-RH-55							
		AT-18.3C - WS-5.1m ph- RH-55	0.007911 5	-17.7219	0	0	0.004290 86	278.196	5111.4
		AT-18.3C - WS-10m ph- RH-55	0.007911 5	-17.7219	0	0	0.004290 86	278.196	5111.4
	1-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C - WS-1mp h-RH-55	0.007911 5	-17.7219	0	0	0.004290 86	278.196	5111.4
		AT-18.3C - WS-5.1m ph- RH-55	0.007911 5	-17.7219	0	0	0.004290 86	278.196	5111.4
		AT-18.3C - WS-10m ph- RH-55	0.007911 5	-17.7219	0	0	0.004290 86	278.196	5111.4
	1-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C - WS-1mp h-RH-55	0.067398 1	-17.7219	0	0	0.012523 9	278.196	600
		AT-18.3C - WS-5.1m ph- RH-55	0.067398 1	-17.7219	0	0	0.012523 9	278.196	600
		AT-18.3C - WS-10m ph- RH-55	0.067398 1	-17.7219	0	0	0.012523 9	278.196	600
	1-Tray Carbon Monoxide (CO) 10-	AT-18.3C - WS-1mp h-RH-55	0.067398 1	-17.7219	0	0	0.012523 9	278.196	600

	min release (IDLH)	AT-18.3C - WS-5.1m ph- RH-55	0.067398 1	-17.7219	0	0	0.012523 9	278.196	600
		AT-18.3C - WS-10m ph- RH-55	0.067398 1	-17.7219	0	0	0.012523 9	278.196	600
	1-Tray Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C - WS-1mp h-RH-55	0.067398 1	-17.7219	0	0	0.012523 9	278.196	600
		AT-18.3C - WS-5.1m ph- RH-55	0.067398 1	-17.7219	0	0	0.012523 9	278.196	600
		AT-18.3C - WS-10m ph- RH-55	0.067398 1	-17.7219	0	0	0.012523 9	278.196	600
Study\MP2XL BESS \Post-Combustion\1- Module Release (336-cell propagation)	3-Tray Total Vent Gas (TVG) release (flammab le)	AT-18.3C - WS-1mp h-RH-55	0.023734 5	-17.7219	0	0	0.007431 99	278.196	5111.4
		AT-18.3C - WS-5.1m ph- RH-55	0.023734 5	-17.7219	0	0	0.007431 99	278.196	5111.4
		AT-18.3C - WS-10m ph- RH-55	0.023734 5	-17.7219	0	0	0.007431 99	278.196	5111.4
	3-Tray Carbon Monoxide (CO)	AT-18.3C - WS-1mp h-RH-55	0.023734 5	-17.7219	0	0	0.007431 99	278.196	5111.4

	release (IDLH)	AT-18.3C - WS-5.1m ph- RH-55	0.023734 5	-17.7219	0	0	0.007431 99	278.196	5111.4
		AT-18.3C - WS-10m ph- RH-55	0.023734 5	-17.7219	0	0	0.007431 99	278.196	5111.4
	3-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C - WS-1mp h-RH-55	0.023734 5	-17.7219	0	0	0.007431 99	278.196	5111.4
		AT-18.3C - WS-5.1m ph- RH-55	0.023734 5	-17.7219	0	0	0.007431 99	278.196	5111.4
		AT-18.3C - WS-10m ph- RH-55	0.023734 5	-17.7219	0	0	0.007431 99	278.196	5111.4
	3-Tray Total Vent Gas (TVG) 10-min release (flammab le)	AT-18.3C - WS-1mp h-RH-55	0.202194	-17.7219	0	0	0.021692	278.196	600
		AT-18.3C - WS-5.1m ph- RH-55	0.202194	-17.7219	0	0	0.021692	278.196	600
		AT-18.3C - WS-10m ph- RH-55	0.202194	-17.7219	0	0	0.021692	278.196	600
	3-Tray Carbon Monoxide (CO) 10- min	AT-18.3C - WS-1mp h-RH-55	0.202194	-17.7219	0	0	0.021692	278.196	600

	release (IDLH)	AT-18.3C - WS-5.1m ph- RH-55	0.202194	-17.7219	0	0	0.021692	278.196	600
		AT-18.3C - WS-10m ph- RH-55	0.202194	-17.7219	0	0	0.021692	278.196	600
	3-Tray Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C - WS-1mp h-RH-55	0.202194	-17.7219	0	0	0.021692	278.196	600
		AT-18.3C - WS-5.1m ph- RH-55	0.202194	-17.7219	0	0	0.021692	278.196	600
		AT-18.3C - WS-10m ph- RH-55	0.202194	-17.7219	0	0	0.021692	278.196	600
Study\MP2XL BESS \Post-Combustion\1- MP2XL Release (8064-cell propagation)	24- Modules Total Vent Gas (TVG) release (flammab le)	AT-18.3C - WS-1mp h-RH-55	0.569628	-17.7219	0	0	0.036409 2	278.196	5111.4
		AT-18.3C - WS-5.1m ph- RH-55	0.569628	-17.7219	0	0	0.036409 2	278.196	5111.4
		AT-18.3C - WS-10m ph- RH-55	0.569628	-17.7219	0	0	0.036409 2	278.196	5111.4
	24- Modules Carbon Monoxide	AT-18.3C - WS-1mp h-RH-55	0.569628	-17.7219	0	0	0.036409 2	278.196	5111.4

	(CO) release (IDLH)	AT-18.3C - WS-5.1m ph- RH-55	0.569628	-17.7219	0	0	0.036409 2	278.196	5111.4
		AT-18.3C - WS-10m ph- RH-55	0.569628	-17.7219	0	0	0.036409 2	278.196	5111.4
	24- Modules Carbon Dioxide (CO2) release (IDLH)	AT-18.3C - WS-1mp h-RH-55	0.569628	-17.7219	0	0	0.036409 2	278.196	5111.4
		AT-18.3C - WS-5.1m ph- RH-55	0.569628	-17.7219	0	0	0.036409 2	278.196	5111.4
		AT-18.3C - WS-10m ph- RH-55	0.569628	-17.7219	0	0	0.036409 2	278.196	5111.4
	24- Modules Total Vent Gas (TVG) 10-min release (flammab le)	AT-18.3C - WS-1mp h-RH-55	4.85266	-17.7219	0	0	0.106269	278.196	600
		AT-18.3C - WS-5.1m ph- RH-55	4.85266	-17.7219	0	0	0.106269	278.196	600
		AT-18.3C - WS-10m ph- RH-55	4.85266	-17.7219	0	0	0.106269	278.196	600
	24- Modules	AT-18.3C -	4.85266	-17.7219	0	0	0.106269	278.196	600

Carbon Monoxide (CO) 10-min release (IDLH)		WS-1mp h-RH-55							
		AT-18.3C - WS-5.1m ph- RH-55	4.85266	-17.7219	0	0	0.106269	278.196	600
		AT-18.3C - WS-10m ph- RH-55	4.85266	-17.7219	0	0	0.106269	278.196	600
	24- Modules Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C - WS-1mp h-RH-55	4.85266	-17.7219	0	0	0.106269	278.196	600
		AT-18.3C - WS-5.1m ph- RH-55	4.85266	-17.7219	0	0	0.106269	278.196	600
		AT-18.3C - WS-10m ph- RH-55	4.85266	-17.7219	0	0	0.106269	278.196	600

Dispersion Results

Input dispersion parameters

Core averaging time	18.75	s
Flammable averaging time	18.75	s
Toxic averaging time	60	s
Height of interest	2.78	m

Distance downwind to defined concentrations

The reported concentration of interest is defined at the scenario

Path	Scenario	Weather	Material	Material to track	Concentration of interest [fraction]	Averaging time selected	Distance downwind to concentration of interest [m]
Study\MP2XL BESS\Post-Combustion\UL9540A Module Test based Release (7-cells propogation)	UL9540A module (7-cell) Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	0.494303
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	0.461659
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	0.424474
	UL9540A module (7-cell) Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	0.326405
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	0.313596
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	0.296681
	UL9540A module (7-cell) Carbon Dioxide release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	0.32145

	cell) Carbon Dioxide (CO ₂) release (IDLH)	RH-55	n				
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	0.309103
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	0.292628
	UL9540A module (7-cell) Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	1.18016
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	1.12222
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	1.06694
	UL9540A module (7-cell) Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	0.613866
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	0.580605
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	0.539283
	UL9540A module (7-cell) Carbon Dioxide (CO ₂) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	0.604737
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	0.572397

		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	0.532357
Study\MP2XL BESS\Post-Combustion\1-Tray Release (112-cell propogation)	1-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	1.38666
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	1.30638
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	1.2229
	1-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	1.11597
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	1.07007
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	1.02344
	1-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	1.10726
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	1.06236
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	1.01656
	1-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	3.22394
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	2.80866
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	2.42073

		RH-55	n				
	1-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	2.23741
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	2.02857
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	1.82823
	1-Tray Carbon Dioxide (CO ₂) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	2.20745
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	2.00571
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	1.811
Study\MP2XL BESS\Post-Combustion\1-Module Release (336-cell propagation)	3-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	2.00277
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	1.8049
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	1.63334
	3-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	1.50566
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	1.421
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	1.33192

	3-Tray Carbon Dioxide (CO ₂) release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	1.49171
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	1.40967
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	1.32242
	3-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	5.33754
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	4.5896
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	Post-Combustion	0.029	Flammable	3.87788
	3-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	3.74995
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	3.33271
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON MONOXIDE	0.0012	IDLH	2.89845
	3-Tray Carbon Dioxide (CO ₂) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	3.69965
		AT-18.3C-WS-5.1mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	3.29252
		AT-18.3C-WS-10mph-RH-55	Post-Combustion	CARBON DIOXIDE	0.04	IDLH	2.86715
Study\MP2XL BESS\Post-	24-Modules	AT-18.3C-	Post-	Post-	0.029	Flammable	8.5391



Combustion\1-MP2XL Release (8064-cell propagation)	Total Vent Gas (TVG) release (flammable)	WS-1mph- RH-55	Combustio n	Combustion			
		AT-18.3C- WS-5.1mph -RH-55	Post- Combustio n	Post- Combustion	0.029	Flammable	7.30585
		AT-18.3C- WS-10mph- RH-55	Post- Combustio n	Post- Combustion	0.029	Flammable	6.06411
	24-Modules Carbon Monoxide (CO) release (IDLH)	AT-18.3C- WS-1mph- RH-55	Post- Combustio n	CARBON MONOXID E	0.0012	IDLH	6.0789
		AT-18.3C- WS-5.1mph -RH-55	Post- Combustio n	CARBON MONOXID E	0.0012	IDLH	5.35032
		AT-18.3C- WS-10mph- RH-55	Post- Combustio n	CARBON MONOXID E	0.0012	IDLH	4.57579
	24-Modules Carbon Dioxide (CO2) release (IDLH)	AT-18.3C- WS-1mph- RH-55	Post- Combustio n	CARBON DIOXIDE	0.04	IDLH	6.00297
		AT-18.3C- WS-5.1mph -RH-55	Post- Combustio n	CARBON DIOXIDE	0.04	IDLH	5.28837
		AT-18.3C- WS-10mph- RH-55	Post- Combustio n	CARBON DIOXIDE	0.04	IDLH	4.52726
	24-Modules Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C- WS-1mph- RH-55	Post- Combustio n	Post- Combustion	0.029	Flammable	23.677
		AT-18.3C- WS-5.1mph -RH-55	Post- Combustio n	Post- Combustion	0.029	Flammable	20.6927
		AT-18.3C- WS-10mph- RH-55	Post- Combustio n	Post- Combustion	0.029	Flammable	16.7795

	24-Modules Carbon Monoxide (CO) 10- min release (IDLH)	AT-18.3C- WS-1mph- RH-55	Post- Combustio n	CARBON MONOXID E	0.0012	IDLH	16.6368
		AT-18.3C- WS-5.1mph -RH-55	Post- Combustio n	CARBON MONOXID E	0.0012	IDLH	14.5713
		AT-18.3C- WS-10mph- RH-55	Post- Combustio n	CARBON MONOXID E	0.0012	IDLH	12.1208
	24-Modules Carbon Dioxide (CO ₂) 10- min release (IDLH)	AT-18.3C- WS-1mph- RH-55	Post- Combustio n	CARBON DIOXIDE	0.04	IDLH	16.4248
		AT-18.3C- WS-5.1mph -RH-55	Post- Combustio n	CARBON DIOXIDE	0.04	IDLH	14.394
		AT-18.3C- WS-10mph- RH-55	Post- Combustio n	CARBON DIOXIDE	0.04	IDLH	11.9856

Path	Scenario	Weather	Distance to UFL [m]	Distance to LFL [m]	Distance to LFL fraction [m]
Study\MP2XL BESS\Post- Combustion\UL9540A Module Test based Release (7-cells propagation)	UL9540A module (7-cell) Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C- WS-5.1mph- RH-55	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C- WS-5.1mph- RH-55	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Dioxide	AT-18.3C- WS-5.1mph- RH-55	n/a	n/a	n/a

	(CO2) 10-min release (IDLH)	AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a
Study\MP2XL BESS\Post-Combustion\1-Tray Release (112-cell propogation)	1-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	0.208239	0.271369
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.209517	0.267447
		AT-18.3C-WS-10mph-RH-55	n/a	0.211818	0.261744
	1-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	0.208239	0.271369
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.209517	0.267447
		AT-18.3C-WS-10mph-RH-55	n/a	0.211818	0.261744
	1-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	0.208239	0.271369
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.209517	0.267447
		AT-18.3C-WS-10mph-RH-55	n/a	0.211818	0.261744
	1-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	0.359059	1.04997
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.359745	0.763557
		AT-18.3C-WS-10mph-RH-55	n/a	0.360734	0.732591
	1-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	0.359059	1.04997

		AT-18.3C-WS-5.1mph-RH-55	n/a	0.359745	0.763557
		AT-18.3C-WS-10mph-RH-55	n/a	0.360734	0.732591
	1-Tray Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	0.359059	1.04997
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.359745	0.763557
		AT-18.3C-WS-10mph-RH-55	n/a	0.360734	0.732591
Study\MP2XL BESS\Post-Combustion\1-Module Release (336-cell propogation)	3-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	0.274464	0.468541
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.275143	0.458882
		AT-18.3C-WS-10mph-RH-55	n/a	0.27612	0.443506
	3-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	0.274464	0.468541
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.275143	0.458882
		AT-18.3C-WS-10mph-RH-55	n/a	0.27612	0.443506
	3-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	0.274464	0.468541
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.275143	0.458882
		AT-18.3C-WS-10mph-RH-55	n/a	0.27612	0.443506

	3-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	0.599176	1.46625
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.589611	1.42031
		AT-18.3C-WS-10mph-RH-55	n/a	0.574811	1.35918
	3-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	0.599176	1.46625
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.589611	1.42031
		AT-18.3C-WS-10mph-RH-55	n/a	0.574811	1.35918
	3-Tray Carbon Dioxide (CO ₂) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	0.599176	1.46625
		AT-18.3C-WS-5.1mph-RH-55	n/a	0.589611	1.42031
		AT-18.3C-WS-10mph-RH-55	n/a	0.574811	1.35918
Study\MP2XL BESS\Post-Combustion\1-MP2XL Release (8064-cell propogation)	24-Modules Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	1.22014	2.18027
		AT-18.3C-WS-5.1mph-RH-55	n/a	1.1946	2.06762
		AT-18.3C-WS-10mph-RH-55	n/a	1.15538	1.92686
	24-Modules Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	1.22014	2.18027
		AT-18.3C-WS-5.1mph-RH-55	n/a	1.1946	2.06762

		AT-18.3C-WS-10mph-RH-55	n/a	1.15538	1.92686
	24-Modules Carbon Dioxide (CO ₂) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	1.22014	2.18027
		AT-18.3C-WS-5.1mph-RH-55	n/a	1.1946	2.06762
		AT-18.3C-WS-10mph-RH-55	n/a	1.15538	1.92686
	24-Modules Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	2.84972	6.17087
		AT-18.3C-WS-5.1mph-RH-55	n/a	2.72601	5.72102
		AT-18.3C-WS-10mph-RH-55	n/a	2.55154	5.1396
	24-Modules Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	2.84972	6.17087
		AT-18.3C-WS-5.1mph-RH-55	n/a	2.72601	5.72102
		AT-18.3C-WS-10mph-RH-55	n/a	2.55154	5.1396
	24-Modules Carbon Dioxide (CO ₂) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	2.84972	6.17087
		AT-18.3C-WS-5.1mph-RH-55	n/a	2.72601	5.72102
		AT-18.3C-WS-10mph-RH-55	n/a	2.55154	5.1396

Outdoor Toxic Results

Distance downwind to defined concentrations

The reported concentrations are defined in the respective material properties

Path	Scenario	Weather	Distance downwind to ERPG1 (3600 s) [m]	Distance downwind to ERPG2 (3600 s) [m]	Distance downwind to ERPG3 (3600 s) [m]	Distance downwind to STEL (900 s) [m]	Distance downwind to IDLH (1800 s) [m]
Study\MP2XL BESS\Post-Combustion\UL9540A Module Test based Release (7-cells propagation)	UL9540A module (7-cell) Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a

		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	UL9540A module (7-cell) Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
Study\MP2XL BESS\Post-Combustion\1-Tray Release (112-cell propogation)	1-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph	n/a	n/a	n/a	n/a	n/a

		-RH-55					
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	1-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	1-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	1-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	1-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a

		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	1-Tray Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
Study\MP2XL BESS\Post-Combustion\1-Module Release (336-cell propogation)	3-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	3-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
	3-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C-	n/a	n/a	n/a	n/a	n/a



		WS-10mph- RH-55					
	3-Tray Total Vent Gas (TVG) 10- min release (flammable)	AT-18.3C- WS-1mph- RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-5.1mph -RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a	n/a	n/a
	3-Tray Carbon Monoxide (CO) 10- min release (IDLH)	AT-18.3C- WS-1mph- RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-5.1mph -RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a	n/a	n/a
	3-Tray Carbon Dioxide (CO2) 10- min release (IDLH)	AT-18.3C- WS-1mph- RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-5.1mph -RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a	n/a	n/a
Study\MP2XL BESS\Post- Combustion\1-MP2XL Release (8064-cell propagation)	24-Modules Total Vent Gas (TVG) release (flammable)	AT-18.3C- WS-1mph- RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-5.1mph -RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a	n/a	n/a



	24-Modules Carbon Monoxide (CO) release (IDLH)	AT-18.3C- WS-1mph- RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-5.1mph -RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a	n/a	n/a
	24-Modules Carbon Dioxide (CO2) release (IDLH)	AT-18.3C- WS-1mph- RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-5.1mph -RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a	n/a	n/a
	24-Modules Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C- WS-1mph- RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-5.1mph -RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a	n/a	n/a
	24-Modules Carbon Monoxide (CO) 10- min release (IDLH)	AT-18.3C- WS-1mph- RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-5.1mph -RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a	n/a	n/a

	24-Modules Carbon Dioxide (CO2) 10- min release (IDLH)	AT-18.3C- WS-1mph- RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-5.1mph -RH-55	n/a	n/a	n/a	n/a	n/a
		AT-18.3C- WS-10mph- RH-55	n/a	n/a	n/a	n/a	n/a

Distance downwind to defined dangerous doses

The reported dangerous doses are defined in the respective material properties

Exposure duration at defined dangerous doses

The reported dangerous doses are defined in the respective material properties

Jet Fire Results

Distance downwind to defined radiation levels

The reported radiations are defined in the parameters

Path	Scenario	Weather	Flame length [m]	Distance downwind to intensity level 1 (4.7 kW/m ²) [m]	Distance downwind to intensity level 2 (12.5 kW/m ²) [m]	Distance downwind to intensity level 3 (37.5 kW/m ²) [m]
Study\MP2XL BESS\Post-Combustion\UL9540A Module Test based Release (7-cells propogation)	UL9540A module (7-cell) Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	0.656305	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	0.656175	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	0.655978	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.656305	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	0.656175	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	0.655978	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Dioxide (CO ₂) release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.656305	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	0.656175	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	0.655978	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Dioxide (CO ₂) release (IDLH)	AT-18.3C-WS-1mph-RH-55	1.16003	n/a	n/a	n/a

	cell) Total Vent Gas (TVG) 10-min release (flammable)	RH-55				
		AT-18.3C-WS-5.1mph-RH-55	1.15945	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	1.15859	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	1.16003	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	1.15945	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	1.15859	n/a	n/a	n/a
	UL9540A module (7-cell) Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	1.16003	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	1.15945	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	1.15859	n/a	n/a	n/a
Study\MP2XL BESS\Post-Combustion\1-Tray Release (112-cell propogation)	1-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	1.52718	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	1.52603	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	1.52433	n/a	n/a	n/a
	1-Tray Carbon	AT-18.3C-WS-1mph-	1.52718	n/a	n/a	n/a

	Monoxide (CO) release (IDLH)	RH-55				
		AT-18.3C-WS-5.1mph-RH-55	1.52603	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	1.52433	n/a	n/a	n/a
	1-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	1.52718	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	1.52603	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	1.52433	n/a	n/a	n/a
	1-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	3.93394	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	4.0259	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	4.18695	n/a	n/a	n/a
	1-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	3.93394	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	4.0259	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	4.18695	n/a	n/a	n/a

	1-Tray Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	3.93394	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	4.0259	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	4.18695	n/a	n/a	n/a
Study\MP2XL BESS\Post-Combustion\1-Module Release (336-cell propogation)	3-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	2.47039	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	2.48147	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	2.50145	n/a	n/a	n/a
	3-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	2.47039	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	2.48147	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	2.50145	n/a	n/a	n/a
	3-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	2.47039	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	2.48147	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	2.50145	n/a	n/a	n/a
	3-Tray Total Vent Gas (TVG) 10-min release	AT-18.3C-WS-1mph-RH-55	6.37619	n/a	n/a	n/a

	(flammable)	AT-18.3C-WS-5.1mph-RH-55	6.61168	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	7.02633	n/a	n/a	n/a
	3-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	6.37619	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	6.61168	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	7.02633	n/a	n/a	n/a
	3-Tray Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	6.37619	n/a	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	6.61168	n/a	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	7.02633	n/a	n/a	n/a
Study\MP2XL BESS\Post-Combustion\1-MP2XL Release (8064-cell propogation)	24-Modules Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	10	1.54867	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	10.4439	1.6954	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	11.2345	2.13935	n/a	n/a
	24-Modules Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	10	1.54867	n/a	n/a

		AT-18.3C-WS-5.1mph-RH-55	10.4439	1.6954	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	11.2345	2.13935	n/a	n/a
	24-Modules Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	10	1.54867	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	10.4439	1.6954	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	11.2345	2.13935	n/a	n/a
	24-Modules Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	23.8168	4.54916	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	24.8716	5.80239	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	26.8626	9.6213	n/a	n/a
	24-Modules Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	23.8168	4.54916	n/a	n/a
		AT-18.3C-WS-5.1mph-RH-55	24.8716	5.80239	n/a	n/a
		AT-18.3C-WS-10mph-RH-55	26.8626	9.6213	n/a	n/a
	24-Modules Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	23.8168	4.54916	n/a	n/a
		AT-18.3C-	24.8716	5.80239	n/a	n/a

WS-5.1mph-
RH-55

		AT-18.3C- WS-10mph- RH-55	26.8626	9.6213	n/a	n/a
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Flash Fire Results

Distance downwind to defined concentrations

The reported LFL and LFL fraction are defined in the respective material property

Path	Scenario	Weather	Distance downwind to LFL [m]	Distance downwind to LFL Fraction [m]
Study\MP2XL BESS\Post-Combustion\UL9540A Module Test based Release (7-cells propogation)	UL9540A module (7-cell) Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55		
		AT-18.3C-WS-5.1mph-RH-55		
		AT-18.3C-WS-10mph-RH-55		
	UL9540A module (7-cell) Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55		
		AT-18.3C-WS-5.1mph-RH-55		
		AT-18.3C-WS-10mph-RH-55		
	UL9540A module (7-cell) Carbon Dioxide (CO ₂) release (IDLH)	AT-18.3C-WS-1mph-RH-55		
		AT-18.3C-WS-5.1mph-RH-55		
		AT-18.3C-WS-10mph-RH-55		
	UL9540A module (7-cell) Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55		
		AT-18.3C-WS-5.1mph-RH-55		
		AT-18.3C-WS-10mph-RH-55		
	UL9540A module (7-cell) Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55		
		AT-18.3C-WS-5.1mph-RH-55		
		AT-18.3C-WS-10mph-RH-55		

		AT-18.3C-WS-5.1mph-RH-55		
		AT-18.3C-WS-10mph-RH-55		
	UL9540A module (7-cell) Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55		
		AT-18.3C-WS-5.1mph-RH-55		
		AT-18.3C-WS-10mph-RH-55		
Study\MP2XL BESS\Post-Combustion\1-Tray Release (112-cell propogation)	1-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	0.208239	0.271369
		AT-18.3C-WS-5.1mph-RH-55	0.209517	0.267447
		AT-18.3C-WS-10mph-RH-55	0.211818	0.261744
	1-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.208239	0.271369
		AT-18.3C-WS-5.1mph-RH-55	0.209517	0.267447
		AT-18.3C-WS-10mph-RH-55	0.211818	0.261744
	1-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.208239	0.271369
		AT-18.3C-WS-5.1mph-RH-55	0.209517	0.267447
		AT-18.3C-WS-10mph-RH-55	0.211818	0.261744
	1-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	0.359059	1.04997
		AT-18.3C-WS-5.1mph-RH-55	0.359745	0.763557
		AT-18.3C-WS-10mph-RH-55	0.360734	0.732591

	1-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.359059	1.04997
		AT-18.3C-WS-5.1mph-RH-55	0.359745	0.763557
		AT-18.3C-WS-10mph-RH-55	0.360734	0.732591
	1-Tray Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.359059	1.04997
		AT-18.3C-WS-5.1mph-RH-55	0.359745	0.763557
		AT-18.3C-WS-10mph-RH-55	0.360734	0.732591
Study\MP2XL BESS\Post-Combustion\1-Module Release (336-cell propogation)	3-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	0.274464	0.468541
		AT-18.3C-WS-5.1mph-RH-55	0.275143	0.458882
		AT-18.3C-WS-10mph-RH-55	0.27612	0.443506
	3-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.274464	0.468541
		AT-18.3C-WS-5.1mph-RH-55	0.275143	0.458882
		AT-18.3C-WS-10mph-RH-55	0.27612	0.443506
	3-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.274464	0.468541
		AT-18.3C-WS-5.1mph-RH-55	0.275143	0.458882
		AT-18.3C-WS-10mph-RH-55	0.27612	0.443506
	3-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	0.599176	1.46625
		AT-18.3C-WS-5.1mph-RH-55	0.589611	1.42031
		AT-18.3C-WS-10mph-RH-55	0.574811	1.35918

	3-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.599176	1.46625
		AT-18.3C-WS-5.1mph-RH-55	0.589611	1.42031
		AT-18.3C-WS-10mph-RH-55	0.574811	1.35918
	3-Tray Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.599176	1.46625
		AT-18.3C-WS-5.1mph-RH-55	0.589611	1.42031
		AT-18.3C-WS-10mph-RH-55	0.574811	1.35918
Study\MP2XL BESS\Post-Combustion\1-MP2XL Release (8064-cell propogation)	24-Modules Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	1.22014	2.18027
		AT-18.3C-WS-5.1mph-RH-55	1.1946	2.06762
		AT-18.3C-WS-10mph-RH-55	1.15538	1.92686
	24-Modules Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	1.22014	2.18027
		AT-18.3C-WS-5.1mph-RH-55	1.1946	2.06762
		AT-18.3C-WS-10mph-RH-55	1.15538	1.92686
	24-Modules Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	1.22014	2.18027
		AT-18.3C-WS-5.1mph-RH-55	1.1946	2.06762
		AT-18.3C-WS-10mph-RH-55	1.15538	1.92686
	24-Modules Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	2.84972	6.17087
		AT-18.3C-WS-5.1mph-RH-55	2.72601	5.72102

		AT-18.3C-WS-10mph-RH-55	2.55154	5.1396
	24-Modules Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	2.84972	6.17087
		AT-18.3C-WS-5.1mph-RH-55	2.72601	5.72102
		AT-18.3C-WS-10mph-RH-55	2.55154	5.1396
	24-Modules Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	2.84972	6.17087
		AT-18.3C-WS-5.1mph-RH-55	2.72601	5.72102
		AT-18.3C-WS-10mph-RH-55	2.55154	5.1396

Maximum distance to LFL fraction at any height

Path	Scenario	Weather	Max flash fire distance [m]	Height of the max flash fire distance [m]	Time [s]
Study\MP2XL BESS\Post-Combustion\UL9540A Module Test based Release (7-cells propogation)	UL9540A module (7-cell) Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55			
		AT-18.3C-WS-5.1mph-RH-55			
		AT-18.3C-WS-10mph-RH-55			
	UL9540A module (7-cell) Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55			
		AT-18.3C-WS-5.1mph-RH-55			
		AT-18.3C-WS-10mph-RH-55			

	UL9540A module (7-cell) Carbon Dioxide (CO ₂) release (IDLH)	AT-18.3C- WS-1mph- RH-55			
		AT-18.3C- WS-5.1mph- RH-55			
		AT-18.3C- WS-10mph- RH-55			
	UL9540A module (7-cell) Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C- WS-1mph- RH-55			
		AT-18.3C- WS-5.1mph- RH-55	0.0513383	2.77603	1.25986
		AT-18.3C- WS-10mph- RH-55	0.25018	2.78101	10.541
	UL9540A module (7-cell) Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C- WS-1mph- RH-55			
		AT-18.3C- WS-5.1mph- RH-55	0.0513383	2.77603	1.25986
		AT-18.3C- WS-10mph- RH-55	0.25018	2.78101	10.541
	UL9540A module (7-cell) Carbon Dioxide (CO ₂) 10-min release (IDLH)	AT-18.3C- WS-1mph- RH-55			
		AT-18.3C- WS-5.1mph- RH-55	0.0513383	2.77603	1.25986
		AT-18.3C- WS-10mph- RH-55	0.25018	2.78101	10.541
Study\MP2XL BESS\Post- Combustion\1-Tray Release (112-	1-Tray Total Vent Gas (TVG)	AT-18.3C- WS-1mph-			

cell propagation)	release (flammable)	RH-55			
		AT-18.3C- WS-5.1mph- RH-55			
		AT-18.3C- WS-10mph- RH-55			
	1-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C- WS-1mph- RH-55			
		AT-18.3C- WS-5.1mph- RH-55			
		AT-18.3C- WS-10mph- RH-55			
	1-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C- WS-1mph- RH-55			
		AT-18.3C- WS-5.1mph- RH-55			
		AT-18.3C- WS-10mph- RH-55			
	1-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C- WS-1mph- RH-55	1.05778	2.78585	591.455
		AT-18.3C- WS-5.1mph- RH-55	0.899518	2.78666	591.455
		AT-18.3C- WS-10mph- RH-55	0.804496	2.7875	591.454
	1-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C- WS-1mph- RH-55	1.05778	2.78585	591.455
		AT-18.3C- WS-5.1mph- RH-55	0.899518	2.78666	591.455
		AT-18.3C- WS-10mph- RH-55	0.804496	2.7875	591.454

	1-Tray Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	1.05778	2.78585	591.455
		AT-18.3C-WS-5.1mph-RH-55	0.899518	2.78666	591.455
		AT-18.3C-WS-10mph-RH-55	0.804496	2.7875	591.454
Study\MP2XL BESS\Post-Combustion\1-Module Release (336-cell propogation)	3-Tray Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	0.490126	2.77838	2.06769
		AT-18.3C-WS-5.1mph-RH-55	0.479155	2.77868	2.06769
		AT-18.3C-WS-10mph-RH-55	0.46231	2.77922	2.06769
	3-Tray Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.490126	2.77838	2.06769
		AT-18.3C-WS-5.1mph-RH-55	0.479155	2.77868	2.06769
		AT-18.3C-WS-10mph-RH-55	0.46231	2.77922	2.06769
	3-Tray Carbon Dioxide (CO2) release (IDLH)	AT-18.3C-WS-1mph-RH-55	0.490126	2.77838	2.06769
		AT-18.3C-WS-5.1mph-RH-55	0.479155	2.77868	2.06769
		AT-18.3C-WS-10mph-RH-55	0.46231	2.77922	2.06769
	3-Tray Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	1.4729	2.78219	591.453
		AT-18.3C-WS-5.1mph-RH-55	1.43013	2.78316	428.586
		AT-18.3C-WS-10mph-RH-55	1.36399	2.78471	591.449

		RH-55			
	3-Tray Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	1.4729	2.78219	591.453
		AT-18.3C-WS-5.1mph-RH-55	1.43013	2.78316	428.586
		AT-18.3C-WS-10mph-RH-55	1.36399	2.78471	591.449
	3-Tray Carbon Dioxide (CO ₂) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	1.4729	2.78219	591.453
		AT-18.3C-WS-5.1mph-RH-55	1.43013	2.78316	428.586
		AT-18.3C-WS-10mph-RH-55	1.36399	2.78471	591.449
Study\MP2XL BESS\Post-Combustion\1-MP2XL Release (8064-cell propogation)	24-Modules Total Vent Gas (TVG) release (flammable)	AT-18.3C-WS-1mph-RH-55	2.18628	2.76662	2555.73
		AT-18.3C-WS-5.1mph-RH-55	2.06766	2.7681	832.433
		AT-18.3C-WS-10mph-RH-55	1.92292	2.76973	270.681
	24-Modules Carbon Monoxide (CO) release (IDLH)	AT-18.3C-WS-1mph-RH-55	2.18628	2.76662	2555.73
		AT-18.3C-WS-5.1mph-RH-55	2.06766	2.7681	832.433
		AT-18.3C-WS-10mph-RH-55	1.92292	2.76973	270.681
	24-Modules Carbon Dioxide (CO ₂) release (IDLH)	AT-18.3C-WS-1mph-RH-55	2.18628	2.76662	2555.73
		AT-18.3C-WS-5.1mph-RH-55	2.06766	2.7681	832.433

		RH-55			
		AT-18.3C-WS-10mph-RH-55	1.92292	2.76973	270.681
	24-Modules Total Vent Gas (TVG) 10-min release (flammable)	AT-18.3C-WS-1mph-RH-55	6.17998	2.74615	591.544
		AT-18.3C-WS-5.1mph-RH-55	5.72443	2.75023	557.251
		AT-18.3C-WS-10mph-RH-55	5.13943	2.7561	591.519
	24-Modules Carbon Monoxide (CO) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	6.17998	2.74615	591.544
		AT-18.3C-WS-5.1mph-RH-55	5.72443	2.75023	557.251
		AT-18.3C-WS-10mph-RH-55	5.13943	2.7561	591.519
	24-Modules Carbon Dioxide (CO2) 10-min release (IDLH)	AT-18.3C-WS-1mph-RH-55	6.17998	2.74615	591.544
		AT-18.3C-WS-5.1mph-RH-55	5.72443	2.75023	557.251
		AT-18.3C-WS-10mph-RH-55	5.13943	2.7561	591.519

