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Project Management Manual

Q-Dance Australia

DEFQON.1 Festival

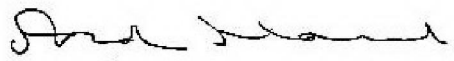
Saturday 17 September 2016

Sydney International Regatta Centre, Penrith

Contents

Acknowledgement

I have read and understood the information contained within the Howard & Sons Pyrotechnics Project Management Plan.

NAME	POSITION	SIGNATURE	DATE
Andrew Howard	Company Director		12-May-16
Christian Howard	Company Director		12-May-16
Stuart Bensley	Crew		12-May-16
Jorgen Enevoldsen	Crew		12-May-16
Cie Komene	Crew		12-May-16
Dean Barnett	Crew		12-May-16
Mitchell Robinson	Crew		12-May-16

NAME	POSITION	SIGNATURE	DATE
Thomas Crawford	Crew		12-May-16
Mark Hakaraia	Crew		12-May-16
Natalie Frew	Crew		12-May-16

Management Contacts

Howard and Sons Pyrotechnics (Displays) Pty Ltd
ABN: 25 001 297 481
PO Box 7118 Baulkham Hills NSW 2153
Phone: 61 2 9899 4096
Fax: 61 2 9899 4196
Email: bang@howardsfireworks.com.au

NAME	POSITION	MOBILE	EMAIL
Andrew Howard	Company Director	0419 270 535	andrew@howardsfireworks.com.au
Christian Howard	Company Director	0418 218 432	christian@howardsfireworks.com.au
Stuart Bensley	Producer	0417 264 989	stuart@howardsfireworks.com.au
Jorgen Enevoldsen	Project Manager	0450 463 574	jorgen@howardsfireworks.com.au
Cie Komene	Project Coordinator	0419 612 775	cie@howardsfireworks.com.au
Kelly Wood	Executive Assistant – Accounts	0414 745 796	kelly@howardsfireworks.com.au
Kayla King	Executive Assistant – Accounts	02 9899 4096	kayla@howardsfireworks.com.au

Crew Contacts – to be confirmed

NAME	POSITION	MOBILE	PYRO LICENCE
Stuart Bensley	Producer HSP6 Master Pyro	0417 264 989	04-100149-001
Jorgen Enevoldsen	Project Manager HSP6 Master Pyro	0450 463 574	04-100363-002
Cie Komene	Project Coordinator HSP6 Master Pyro	0419 612 775	XPYR 100 327
Dean Barnett	HSP5 Chief Pyro	0423 114 318	XPYR 200 047
Mitchell Robinson	HSP5 Chief Pyro	0420 645 161	XPYR 200 092
Thomas Crawford	HSP5 Chief Pyro	0438 808 078	XPYR 200 083
Mark Hakaraia	HSP5 Chief Pyro	+64 21 686 400	CSL 005 507
Natalie Frew	HSP3 Trained Pyro	+64 211 237 533	AHP 044

Transportation / Vehicle Details – to be confirmed

DRIVER	VEHICLE MAKE	VEHICLE MODEL	VEHICLE REGO
Stuart Bensley	Subaru	Forrester	CIG 23Y
Jorgen Enevoldsen	Ford	Mondeo	AY 97 GO
Cie Komene	Mitsubishi	Lancer	CIE 13K
Dean Barnett	Subaru	Outback	FDA 371
Mitchell Robinson	Holden	Commodore	AB 18 PP
Thomas Crawford	Volkswagen	Caddy	CRI 57R
Mark Hakaraia			
Natalie Frew			
	DAF	LF 55 6x2 Truck	FIREWK

DRIVER	VEHICLE MAKE	VEHICLE MODEL	VEHICLE REGO
	Iveco	Daily Van	PYRO
	Kenworth	Semi-trailer	HSPYRO

Event Contacts

NAME	POSITION	MOBILE	EMAIL
Matt Chromatic	Event Producer	0416 025 270	chromatic@q-dance.com.au
Craig De Vita	Event Site Manager	0404 995 625	craig@q-dance.com.au
Matthew Osborne	Production Manager	0412 556 440	matt.osborne@q-dance.com.au
Lynette Britten	Production Office	0432 254 193	productions.au@q-dance.com
Lyn Jones	Event Accounts	02 9280 0802	lyn@q-dance.com.au
			site.au@q-dance.com


A B C D E F G H I J K L M N O P Q R S T U V W X Y Z Za Zb
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
GRASS
WATER
RIVER ROCKS
WATER REEDS
TREE
LARGE STAGE
MEDIUM STAGE
SMALL STAGE
AUDIO
CCB
QUEUE CCB
1.8 MESH FENCE
ACCESS
PORTALOO
6X6
5X5
4X4
3X3
SHIPPING CONTAINER
TOKEN BOX
GENERATOR
PARK BENCH
ELEVATED WORK PLATFORM
HELI PAD
ART INSTALLATION
FIRE EXTINGUISHER A:B(E) POWDER
CO2
WATER
up lake
jet ski pick up
1.8 tonne
1.8 tonne
20m
20m
FOH
MAIN STAGE
BAR
FOOD 12m
water station
JET PACK
warm up lake
BAR B 36m
boat shed
TOILET BLOCK B
HELI SALES
water station
ECC
PIT
SAM
BAR C 12m
FOOD 12m
water station
sign & light
BAR A 12m
BAR A 42m
MARKETS
TOILET BLOCK A
sign & light
20w's
FOOD COURT
ATM
sign & light
access ramp
LOCKERS
water station
RIDE (SLINGSHOT)
BAR D 18m
Kiosk 2 12m
crew catering
Kiosk 1 6m
green room
grand stand
access ramp
30 tonne limit
COMPETITION LAKE
exclusion zone
PYRO BARGE
CLOAK
EMERGENCY VEHICLE ACCESS
VIP and CREW BAGGAGE CHECK WRISTBANDING
CREW ENTRANCE
VIP ENTRANCE TICKET CHECK
GENERAL ENTRANCE
COMPETITION LAKE
N
DEFQON.1 FESTIVAL
ISSUE:
DATE:
REVISION:
PROJECT
DEFQON.1 2016
CLIENT
Q-DANCE
DWG
DEFQON.1 2016 - Island Map
Q-DANCE AUSTRALIA
Suite 466 311-315 castlereagh ST Sydney 2000
W: Q-DANCE.COM.AU
T: 0412 556 440
E: MATT.OSBORNE@Q-DANCE.COM.AU
PROJECT #
DQ16
DATE #
DWG #
SCALE @ A4 1:2000
DRAWN Matt Osborne
CHKD Chromatic
REVISION
DRAFT only
not for event

List of special effects (fired from Red Stage set) – to be finalised

CATEGORY	DESCRIPTION	PRODUCT ID	QUANTITY	SAFETY EXCLUSION ZONES
Fire & Flame Special Effects				3metres (radius)
CO2 Special Effects				3metres (radius)
Flutter & Streamer Special Effects				3metres (radius)
Fountains / Gerbs				3metres(radius)
Special Effects (Pyro)				3metres (radius)
Stage Mines				10metres (radius)
Stage Comets				10metres (radius)

List of ground fireworks (fired from Red Stage scissor lifts) – to be finalised

CATEGORY	DESCRIPTION	PRODUCT ID	QUANTITY	SAFETY EXCLUSION ZONES
Mines				30metres (radius)
Roman Candles				30metres (radius)
Comets				30metres(radius)
Multi Shot Barrages				30metres (radius)

List of aerial fireworks (fired from pontoons) – to be finalised

CATEGORY	DESCRIPTION	PRODUCT ID	QUANTITY	SAFETY EXCLUSION ZONES
Aerial Shells – 50mm				50metres (radius)
Aerial Shells – 62mm				62metres (radius)
Aerial Shells – 75mm				75metres (radius)
Aerial Shells – 100mm				100metres (radius)
Aerial Shells – 125mm				125metres (radius)
Aerial Shells – 150mm				150metres (radius)

List of special effects (fired from stage 3) – to be finalised

CATEGORY	DESCRIPTION	PRODUCT ID	QUANTITY	SAFETY EXCLUSION ZONES
Fire & Flame Special Effects				10metres (radius)

Work Schedule – to be finalised

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Friday 09 September 2016							
0800 – 1600	Wang	Jorgen Mitch Tom Shane	Load FIREWK Equipment ONLY				

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Sunday 11 September 2016							
0900	Auckland > Sydney	Nat	Reservation No. ??? ??? Flight No. ??? Depart Auckland ??? Arrive Sydney ???				
		Nat	Accom with friends				

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Monday 12 September 2016							
0800			BOC Delivery to SIRC 2 x stillage of nitrogen 3 x stillage of CO2				Vehicle Access 1 x Forklift Required
0800					Tow and secure pontoons to start Marina		
0800	Wang > SIRC	Tom	Tom = FIREWK Wallerawang > SIRC Arrive on-site				
0800	SIRC	3 x Crew Jorgen Mitch Tom	Arrive on-site				
0800 – 1200	Main Stage	3 x Crew Jorgen Mitch Tom	Unload FIREWK Equipment ONLY				Vehicle Access 1 x Forklift Required
0800 – 1200	Main stage	3 x Crew Jorgen Mitch Tom	Set up work site				Forklift & Telehandler Req
1200		3 x Crew Jorgen Mitch Tom	Depart site				
1200	SIRC >	Tom	Tom = FIREWK				

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Monday 12 September 2016							
	Wang		Depart on-site SIRC > Wallerawang				
1400	Wang	Shane Tom	Load product (Dangerous Goods / Explosives) 1. Main Stage Pyro 2. Main Stage Scissor Lift 3. Camp Stage Pyro				
1900		Tom	Tom = FIREWK Wallerawang > Accom Arrive on-site				
1740	Wellington > Sydney	Mark	Reservation No. ??? ??? Flight No. ??? Depart Wellington ??? Arrive Sydney ???				
	Sydney Airport	Mark	Collect Hire Vehicle Europcar Reservation No. ??? 1Tonne Van				
	Accom	Tom Mark Nat	Check into Accom 3 x rooms				3 x Rooms Accom Req – 3 x PAX

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Tuesday 13 September 2016							
0800		Tom	Tom = FIREWK Accom > SIRC Arrive on-site				
0800	SIRC	6 x Crew Jorgen Cie Mitch Tom Mark Nat	Arrive on-site				
0800 – 1200	Main Stage	6 x Crew Jorgen Cie Mitch Tom Mark Nat	Unload FIREWK Unload product (Dangerous Goods / Explosives) 1. Main Stage Pyro 2. Main Stage Scissor Lift 3. Camp Stage Pyro				Vehicle Access 1 x Forklift Required
0800 – 1800	Main Stage Install	6 x Crew Jorgen Cie Mitch Tom Mark Nat	Install Backside of Main Stage Boom = Jorgen & Mark/Nat Transfers / Cables = Mitch, Tom, Mark/Nat Backstage Prep / Testing = Cie				25m Boom Lift Req
1200	Displays Warehouse	Shane Andrew Todd	Load trailer Equipment (from Adelaide)				Vehicle Access 1 x Forklift Required
1600	Wang >	Andrew	Andrew = MRPYRO + trailer				

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Tuesday 13 September 2016							
	SIRC	Todd	Wallerawang > SIRC Arrive on-site				
1600	Main Stage	2 x crew Andrew Todd	Unload trailer Equipment (from Adelaide)				Vehicle Access 1 x Forklift Required
1800		6 x Crew Jorgen Cie Mitch Tom Mark Nat	Depart site				
	Accom	Tom Mark Nat	Check into Accom 3 x rooms				3 x Rooms Accom Req – 3 x PAX

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Wednesday 14 September 2016							
0800	SIRC	6 x Crew Jorgen Cie Mitch Tom Mark Nat	Arrive on-site				
0800 – 1800	Main Stage Install	6 x Crew Jorgen Cie Mitch Tom Mark Nat	Install Front side of Main Stage Boom = Jorgen & Mark/Nat Transfers / Cables = Mitch, Tom, Mark/Nat Backstage Prep / Testing = Cie				25m Boom Lift Req
1200 – 1800	Start Marina	2 x Crew ??? ???	Load fireworks pontoon Pre-ignite racks				Van Access to Start Marina
1200 – 1800	Camp Stage Install	2 x Crew ??? ???	Install Camping Stage Pyro				Van Access to Camping Stage
1200 – 1800	Main Stage	2 x Crew ??? ???	Prep scissor lift 11way fan positions				Van Access to Camping Stage
1800		6 x Crew Jorgen Cie	Depart site				

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Wednesday 14 September 2016							
		Mitch Tom Mark Nat					
	Accom	Tom Mark Nat	Check into Accom 3 x rooms				3 x Rooms Accom Req – 3 x PAX

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Thursday 15 September 2016							
0800		6 x Crew Jorgen Cie Mitch Tom Mark Nat	Arrive on-site				
0800 – 1800	Main Stage Install	6 x Crew Jorgen Cie Mitch Tom Mark Nat	Complete Main Stage / Install FOH Boom = Jorgen & Mark/Nat Transfers / Cables = Mitch, Tom, Mark/Nat Backstage Prep / Testing = Cie				25m Boom Lift Req
1200 – 1800	Start Marina	2 x Crew ??? ???	Load fireworks pontoon Pre-ignite racks				Van Access to Start Marina
1200 – 1800	Camp Stage Install	2 x Crew ??? ???	Install Camping Stage Pyro				Van Access to Camping Stage
1200 – 1800	Main Stage	2 x Crew ??? ???	Prep scissor lift 11way fan positions				Van Access to Camping Stage
1200	SIRC > Wang	Tom	Tom = FIREWK Depart on-site SIRC > Wallerawang				
1400	Displays	Shane	Load product (Dangerous				

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Thursday 15 September 2016							
	Warehouse	Tom	Goods / Explosives): 1. Main Stage Shells 2. Camp Stage Ground Fireworks 3. Camp Stage Water Shells				
1600	Main Stage	Stuart Dean	Creative with Jonas				
1800		4 x Crew Cie Mitch Mark Nat	Depart site				
1900	Wang > SIRC	Tom	Tom = FIREWK Wallerawang > Accom Arrive on-site				
1700 – 2100	Main Stage	3 x Crew Stuart Dean Jorgen	Install FOH Flame Programming and Testing				
2100		3 x Crew Stuart Dean Jorgen	Depart site				
	Accom	Tom Mark Nat	Check into Accom 3 x rooms				3 x Rooms Accom Req – 3 x PAX

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Friday 16 September 2016							
0800		Tom	Tom = FIREWK Accom > SIRC Arrive on-site				
0800	SIRC	4 x crew Stuart Dean Cie Tom	Arrive on-site				
0800 – 1600		2 x crew Stuart Dean	Programming				Van Access to Camping Stage
0800 – 1000	Warm Up lake	2 x Crew Cie Tom	Install 2 x Watershell Positions			Security: Maintain exclusion zone	
1000 – 1400	Start Marina	2 x Crew Cie Tom	Load fireworks pontoon Load shells				Van Access to Start Marina
1200	SIRC	4 x crew Jorgen Mitch Mark Nat	Arrive on-site				
1400 – 1800	Camping Stage Fireworks Zone	2 x Crew Jorgen Mitch	Install fireworks behind Camping Stage Set Up FOH control			Security: Maintain exclusion zone	Van Access to Camping Stage

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Friday 16 September 2016							
1400 – 1800	Main Stage	2 x Crew Mark Nat	Load 2 x Scissor Lifts				Scissor Lift/Forklift Required
1500	Competition Lake	2 x Crew Cie Tom	SIRC to Tow and moor fireworks pontoon in Competition Lake		Tow & Moor		
1600 – 1800	Competition Lake	4 x Crew Stuart Dean Cie Tom	Cable & Test Fireworks Pontoon				
1800		4 x crew Stuart Dean Cie Tom	Depart site				
1800	Warm Up Lake	4 x Crew Jorgen Mitch Mark Nat	Intro Sequences – Watershells Jorgen = Pyro Control Mitch = Camping Stage pos Mark = Watershell 01 Nat = Watershell 02			Security: Maintain exclusion zone	Warm Up Lake - Aquatic Exclusion Zone
2200	Camping Stage & Fireworks Zone	4 x Crew Jorgen Mitch Mark Nat	End show Sequence – Stage & Fireworks Jorgen = Pyro Control Mitch = Camping Stage pos Mark = Fireworks pos Nat = Fireworks pos			Security: Maintain exclusion zone	Camping Stage - Fireworks exclusion Zone

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Friday 16 September 2016							
2200 – 0200	Camping Stage	4 x Crew Jorgen Mitch Mark Nat	Camping Stage Pyro/Fireworks Load Out				Van Access to Camping Stage
0200		4 x crew Jorgen Mitch Mark Nat	Depart site				
	Accom	Jorgen Mitch Tom Mark Nat	Accom 4 x rooms 1. Mark 2. Nat 3. Tom 4. Jorgen & Mitch				4 x Rooms Accom Req – 5 PAX

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Saturday 17 September 2016							
1400		3 x Crew Stuart Dean Tom	Arrive on-site				
1400 – 2230	Main Stage	3 x Crew Stuart Dean Mitch	Onsite for Flames and Streamers Stuart = Pyro Control Dean = FireJet Control Tom = Backstage				
1600		5 x crew Jorgen Cie Mitch Mark Nat	Arrive on-site				
2145				Clear backstage			Security – Clear backstage
2215	Mains Stage & Competition Lake	8 x crew	DefQon1 ENDSHOW Stuart = Pyro Control Dean = FireJet Control Cie = Shell Control Mitch = Safety Boat Tom = Safety Boat Jorgen = Back Stage Mark = Back Stage Nat = Back Stage		BOAT on Call from 21:30	Security: Maintain exclusion zone	Competition Lake - Aquatic Exclusion Zone
2245 – 2400	Competition Lake	2 x Crew Mitch Tom	Post Display Check - pontoon – de-rig as SIRC boat pushes pontoons back to Boat Ramp.		Boat on call from 21:30		

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Saturday 17 September 2016							
2230 – 0400	Main Stage	8 x Crew Stuart Dean Cie Mitch Tom Jorgen Mark Nat	Load Out Main Stage				1 x 25m Boom Req
	Accom	Stuart Dean Cie Mitch Tom Jorgen Mark Nat	Accom 4 x rooms / 8 x beds (Twin share) 1. Mark & Stuart 2. Nat & Cie 3. Tom & Dean 4. Jorgen & Mitch				4 x Rooms Accom Req – 8 PAX

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Sunday 19 September 2016							
0815		Mark Nat	Return hire vehicle				
0945	Sydney > Wellington	Mark	Reservation No. SWM XLX Flight No. VA 7516 Depart Sydney 9:45am Arrive Wellington 3:00pm				
1035	Sydney > Auckland	Nat	Reservation No. VKI LZK Flight No. VA 144 Depart Sydney 10:35am Arrive Auckland 3:40pm				
1000	SIRC	6 x Crew Stuart Dean Jorgen Cie Mitch Tom	Arrive on-site				
1000 – 1400	Main Stage	6 x Crew Stuart Dean Jorgen Cie Mitch Tom	Load Truck Tom = FIREWK				Truck Access 1 x Forklift Required
1400	SIRC > Wang	Tom	Tom = FIREWK Depart on-site SIRC > Wallerawang				
1400		6 x Crew Stuart	Depart site				

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Sunday 19 September 2016							
		Dean Jorgen Cie Mitch Tom					

TIME	LOCATION	H&S Crew	WORK ACTIVITY H&S	Q-dance	SIRC	Others	Requirements
Monday 20 September 2016							
1000 – 1400	Bone Yard		BOC Collection				

Airservices Australia and Civil Aviation Safety Authority – Fireworks display conditions

Due to the proximity of the display location to Sydney Airport departure and arrival paths, the fireworks display must not take place unless the following conditions are met:

1. At least 30 minutes prior to each display, the operator must conduct Sydney Air Traffic Control on 1800 020 626 (select option #2) or secondary (02) 9556 6636. The Traffic manager will advise the disposition of traffic management at Sydney and likelihood of any delays to the display.
2. The operator shall abide by any additional direction issued by the Traffic manager, including re-contacting Airservices Australia prior to each display commencement.
3. The operator shall only commence each display with the explicit permission of the Sydney Traffic Manager.
4. The operator shall provide a telephone number for emergency contact during the display.
5. On completion of all fireworks, the operator shall notify Sydney Air Traffic Control via the number(s) in Condition 1.

We hope you appreciate that aviation safety is paramount and *the approval is conditional on the traffic flow and runway configuration at the time.*

CIVIL AVIATION SAFETY AUTHORITY

T 02 9780 3037

Wet Weather Contingency Plan

It should be noted that Howard & Sons Pyrotechnics ensures that each and every display is designed with bad weather in mind. As a result, H&S crew have been trained and are experienced in managing the weather conditions on-site throughout each phase of the bump in, firing and bump out.

Wet Weather Terms (referenced from Australia Bureau of Metrology):
Please refer to the following "Wet Weather Descriptions and Action" table

Wet Weather Contingency:
Please refer to the following "Wet Weather Description and Action" table

In the case of Thunderstorms, the pyrotechnics and flames display must be postponed until conditions improve. Potential lighting strikes present a risk to the pyrotechnics and H&S crew. H&S Crew will use the flash bang 30second rule (time from flash of lightning until the sound of thunder).

If the flash to bang count is 30seconds or less the following actions will take place:

1. Work/display to cease and postponed until conditions improve
2. H&S Crew will ensure all products are covered in a heavy durable tarp to further protect the pyrotechnics
3. H&S Crew and security will ensure the maximum safety exclusion zone is maintain around each firing position
4. Monitor the Bureau of Meteorology for information updates
5. Conditions to be monitored and assessed every 5minutes
6. If conditions persist, display to be postponed another 5minutes
7. Safety exclusion zone must be maintained until the storm has passed and there is more than 30seconds between the flash of lightning and then clap of thunder
8. A further 5minute delay / standby should be observed before returning to work/display

Wet Weather Descriptions and Action

Term	Description	Action
Drizzle	Fairly uniform precipitation composed exclusively of very small water droplets (less than 0.5 mm in diameter) very close to one another.	No adverse effect on the display; as a result the display can precede in these conditions.
Rain	In contrast to showers, rain is steadier and normally falls from stratiform (layer) cloud. Liquid water drops greater than 0.5 mm in diameter. Rain can range in intensity from light to very heavy.	No adverse effect on the display; as a result the display can precede in these conditions.
Showers	Usually begin and end suddenly. Relatively short-lived, but may last half an hour. Fall from cumulus clouds, often separated by blue sky. Showers may fall in patches rather than across the whole forecast area. Range in intensity from light to very heavy.	No adverse effect on the display; as a result the display can precede in these conditions.
Thunderstorm	Thunderstorms are one or more convective clouds in which electrical discharge can be seen as lightning and heard as thunder by a person on the earth's surface. A severe thunderstorm produces one or more of:- • hail at the ground with diameter of 2 cm or more; • wind gusts at the ground of 90 km/h or more; • tornadoes; or • very heavy rain likely to cause flash flooding	Work/Display must be postponed until conditions improve.

Windy Weather Contingency Plan

It should be noted that Howard & Sons Pyrotechnics ensures that each and every display is designed with bad weather in mind. As a result, H&S crew have been trained and are experienced in managing the weather conditions on-site throughout each phase of the bump in, firing and bump out.

Wind Terms (referenced from Australia Bureau of Metrology):
Please refer to the following "Wind Risk Chart and Procedures" table

Wind Contingency:
Please refer to the following "Wind Risk Chart and Procedures" table

In the case of wind speed readings of 40km/hr or more, the display must be postponed until conditions improve.

The following actions will take place:

1. Work/display to cease and postponed until conditions improve
2. H&S Crew will ensure all products are covered in a heavy durable tarp to further protect the pyrotechnics
3. H&S Crew and security will ensure the maximum safety exclusion zone is maintain around each firing position
4. Monitor the Bureau of Meteorology for information updates
5. Conditions to be monitored and assessed every 5minutes
6. If conditions persist, display to be postponed another 5minutes
7. Safety exclusion zone must be maintained until the wind speed readings reduce below 40km/hr
8. A further 5minute delay / standby should be observed before returning to work/display

Wind Risk Table and Actions

Term	Units in km/hr	Units in knots	Description on Land	Description on Sea	North/ South Direction Consequence	North/ South Direction Action	East/ West Direction Consequence	East/ West Direction Action
Calm	0	0	Smoke rises vertically	Sea like a mirror	Unlikely for debris to fall outside safety exclusion zone	Continually monitor wind speed	Unlikely for debris to fall outside safety exclusion zone	Continually monitor wind speed
Light winds	19 km/hr or less	10 knots or less	Wind felt on face; leaves rustle; ordinary vanes moved by wind.	Small wavelets, ripples formed but do not break: A glassy appearance maintained.	Unlikely for debris to fall outside safety exclusion zone	Continually monitor wind speed	Unlikely for debris to fall outside safety exclusion zone	Continually monitor wind speed
Moderate winds	20-29 km/hr	11-16 knots	Raises dust and loose paper; small branches are moved.	Small waves - becoming longer; fairly frequent white horses.	Possibility of debris falling outside safety exclusion zone	Downwind observation of effects	Possibility of debris falling outside safety exclusion zone	Downwind observation of effects
Fresh winds	30-39 km/hr	17-21 knots	Small trees in leaf begin to sway; crested wavelets form on inland water	Moderate waves, taking a more pronounced long form; many white horses are formed - a chance of some spray	Probable case of debris falling outside exclusion zone. Exclusion zone to be extended.	Downwind observation of effects. Possible priority cancellation of some effects	Probable case of debris falling outside exclusion zone. Exclusion zone to be extended	Downwind observation of effects. Possible priority cancellation of some effects
Strong winds	40-50 km/hr	22-27 knots	Large branches in motion; whistling heard in	Large waves begin to form; the white foam crests are more	Certain possibility of debris falling outside exclusion	Display must be postponed until conditions improve	Certain possibility of debris falling outside exclusion	Display must be postponed until conditions improve

Term	Units in km/hr	Units in knots	Description on Land	Description on Sea	North/ South Direction Consequence	North/ South Direction Action	East/ West Direction Consequence	East/ West Direction Action
			telephone wires; umbrellas used with difficulty.	extensive with probably some spray	zone. Exclusion zone to be extended.		zone. Exclusion zone to be extended.	
	51-62 km/hr	28-33 knots	Whole trees in motion; inconvenience felt when walking against wind.	Sea heaps up and white foam from breaking waves begins to be blown in streaks along direction of wind.	Definitely likely for debris to fall outside exclusion zone. Exclusion zone to be extended.	Display must be postponed until conditions improve	Definitely likely for debris to fall outside exclusion zone. Exclusion zone to be extended.	Display must be postponed until conditions improve
Gale	63-75 km/hr	34-40 knots	Twigs break off trees; progress generally impeded.	Moderately high waves of greater length; edges of crests begin to break into spindrift; foam is blown in well marked streaks along the direction of the wind.	High proportion of debris to fall outside exclusion zone. Exclusion zone to be extended.	Display must be postponed until conditions improve	High proportion of debris to fall outside exclusion zone. Exclusion zone to be extended.	Display must be postponed until conditions improve
	76-87 km/hr	41-47 knots	Slight structural damage occurs - roofing dislodged; larger	High waves; dense streaks of foam; crests of waves begin to topple, tumble and roll over; spray may	High proportion of debris to fall outside exclusion zone. Exclusion zone	Display must be postponed until conditions improve	High proportion of debris to fall outside exclusion zone. Exclusion zone	Display must be postponed until conditions improve

Term	Units in km/hr	Units in knots	Description on Land	Description on Sea	North/ South Direction Consequence	North/ South Direction Action	East/ West Direction Consequence	East/ West Direction Action
			branches break off.	affect visibility.	to be extended.		to be extended.	
Storm	88-102 km/hr	48-55 knots	Seldom experienced inland; trees uprooted; considerable structural damage.	Very high waves with long overhanging crests; the resulting foam in great patches is blown in dense white streaks; the surface of the sea takes on a white appearance; the tumbling of the sea becomes heavy with visibility affected.	Display/work must be abandoned	Display/work must be abandoned	Display/work must be abandoned	Display/work miust be abandoned
	103-117 km/hr	56-63 knots	Very rarely experienced - widespread damage	Exceptionally high waves; small and medium sized ships occasionally lost from view behind waves; the sea is	Display/work must be abandoned	Display/work must be abandoned	Display/work must be abandoned	Display/work must be abandoned

Term	Units in km/hr	Units in knots	Description on Land	Description on Sea	North/ South Direction Consequence	North/ South Direction Action	East/ West Direction Consequence	East/ West Direction Action
				completely covered with long white patches of foam; the edges of wave crests are blown into froth.				
Hurricane	118 km/hr or more	64 knots or more		The air is filled with foam and spray. Sea completely white with driving spray; visibility very seriously affected.	Display/work must be abandoned	Display/work must be abandoned	Display/work must be abandoned	Display/work must be abandoned

Referenced from Australian Bureau of Meteorology. Derived from the Beaufort Wind Scale. Wind speeds are given as the equivalent speed, averaged over 10minutes at a standard height of 10metres above open flat ground.

Safety Exclusion Zones

The minimum exclusion zone for a fireworks display must comply with AS 2187.4:

Type	Calibre/Size	Minimum Exclusion Zones
Aerial Shells	50mm	50metres
	62mm	62metres
	75mm	75metres
	100mm	100metres
	125mm	125metres
	150mm	150metres
Multi Shot Barrages	< 30mm	*30metres
	> 30mm	*30metres
Roman Candles	< 30mm	30metres
	38mm	38metres
	50mm	50metres
	62mm	62metres
Mines	< 30mm	30metres
	50mm	50metres
	75mm	75metres
	100mm	100metres
Comets	50mm	50metres
	75mm	75metres
	100mm	100metres
Fountains	< 25mm	20metres
	> 25mm	30metres
Set Pieces	NA	10metres
Special Effects (Pyro)	NA	*3metres
Fire & Flame Special Effects	NA	*3metres
CO2 Special Effects	NA	*Not required
Flutter & Streamer Special Effects	NA	*Not required

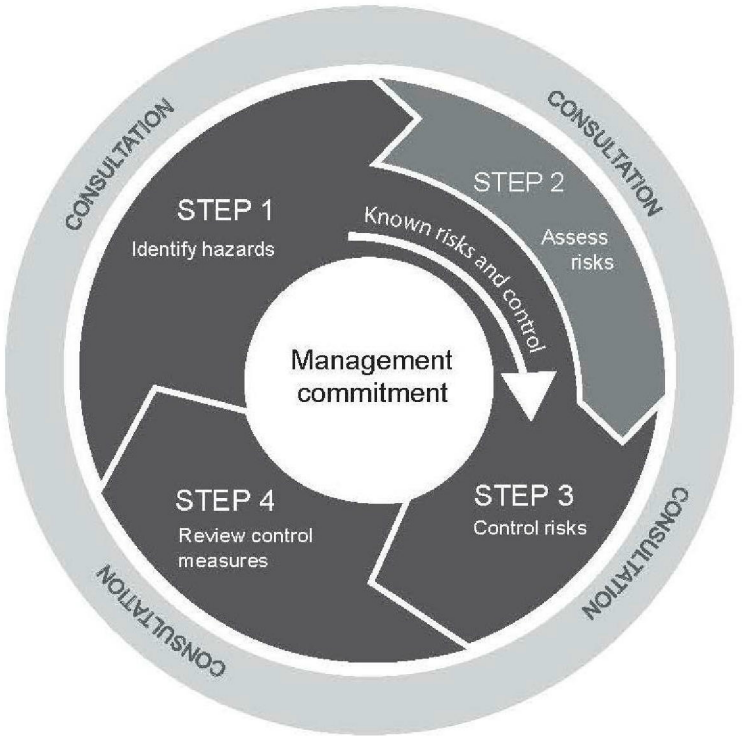
*Subject to product testing and/or display design
Adapted from the Work Cover NSW "Fireworks Operational Conditions– Oct 08" and the QLD Code of Practice "Control of Outdoor Fireworks displays – Dec 03"

Risk Assessment / Safe Work Method Statement

Howard & Sons Pyrotechnics knows that a safe and healthy workplace does not happen by chance or guesswork. We will look at what could go wrong and what the consequences could be, then do whatever we can to eliminate or minimise the health and safety risks.
This risk management process will involve four steps (see Figure 1)

1. identify hazards – find out what could cause harm
2. assess risks if necessary – understand the nature of the harm that could be caused by the hazard, how serious the harm could be and the likelihood of it happening
3. control risks – implement the most effective control measure that is reasonably practicable in their circumstances
4. review control measures – to ensure they are working as planned

FIGURE 1: The risk management process



Risk management is proactive processes that will help us respond to change and facilitate continuous improvement. It will be planned, systematic and cover all reasonably foreseeable hazards and associated risks.

How to identify hazards
Identifying hazards in the workplace involves finding things and situations that could potentially cause harm to people. Hazards generally arise from the following aspects of work and their interaction:

- physical work environment
- equipment, materials and substances used
- work tasks and how they are performed
- work design and management

How to assess risks

A risk assessment involves considering what could happen if someone is exposed to a hazard and the likelihood of it happening. A risk assessment will help determine:

- how severe a risk is
- whether any existing control measures are effective
- what action should be taken to control the risk
- how urgently the action needs to be taken

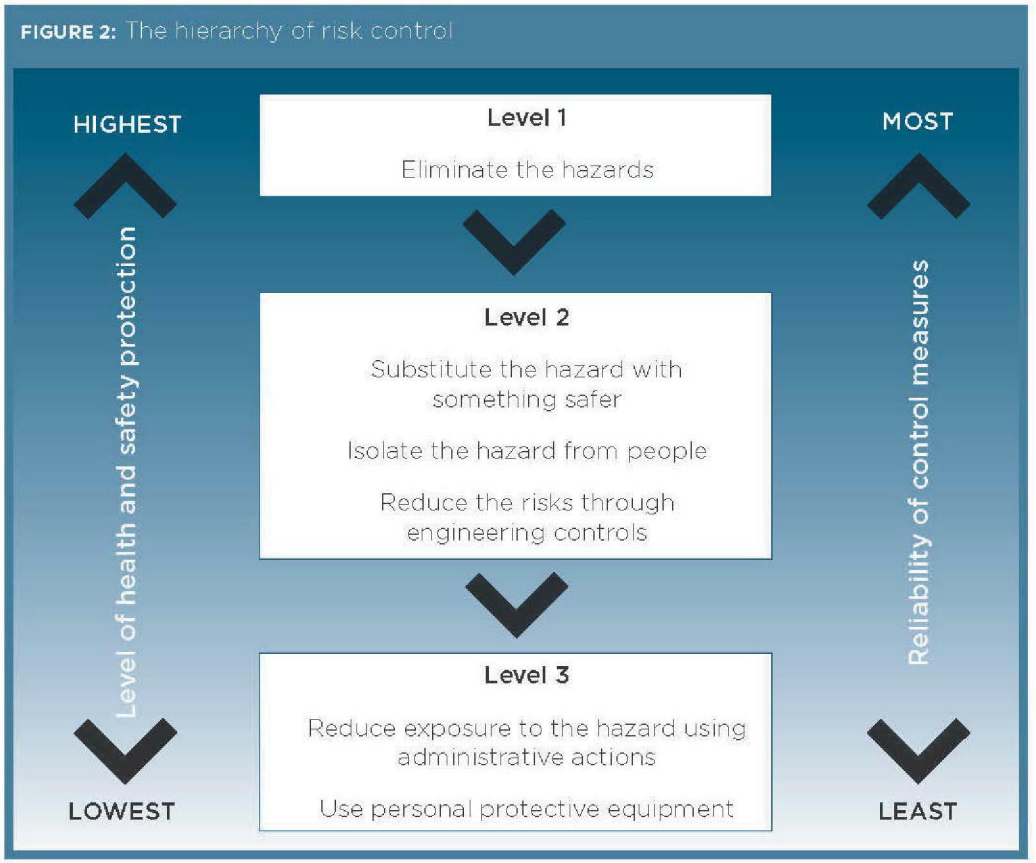
How to control risks

The most important step in managing risks involves eliminating them so far as is reasonably practicable, or if that is not possible, minimising the risks so far as is reasonably practicable.

The ways of controlling risks are ranked from the highest level of protection and reliability to the lowest as shown in Figure 2. This ranking is known as the hierarchy of risk control. The WHS Regulations require duty holders to work through this hierarchy when managing risk under the WHS Regulations.

Howard & Sons Pyrotechnics must always aim to eliminate a hazard, which is the most effective control. If this is not reasonably practicable, we must minimise the risk by working through the other alternatives in the hierarchy.

FIGURE 2: The hierarchy of risk control



How to review controls

The control measures that Howard & Sons Pyrotechnics put in place will be reviewed regularly to make sure they work as planned. We will not wait until something goes wrong.

There are certain situations where we must review our control measures under the WHS Regulations and, if necessary, revise them. A review is required:

- when the control measure is not effective in controlling the risk

- before a change at the workplace that is likely to give rise to a new or different health and safety risk that the control measure may not effectively control
- if a new hazard or risk is identified
- if the results of consultation indicate that a review is necessary
- if a health and safety representative requests a review

Keeping records

Keeping records of the risk management process demonstrates potential compliance with the WHS Act and Regulations. It also helps when undertaking subsequent risk assessments.

Howard & Sons Pyrotechnics will keep information on:

- the identified hazards, assessed risks and chosen control measures (including any hazard checklists, worksheets and assessment tools used in working through the risk management process)
- how and when the control measures were implemented, monitored and reviewed
- who we consulted with
- relevant training records
- any plans for changes

Qualitative Measures of Likelihood
Table 1

Level	Descriptor	Example of Descriptor
A	Almost Certain	Is expected to occur in most circumstances
B	Likely	Will probably occur in most circumstances
C	Possible	Might occur at some time
D	Unlikely	Could occur at some time
E	Rare	May occur only in exceptional circumstances

Qualitative Measures of Consequence on Impact
Table 2

Level	Descriptor	Example of Descriptor
5	Catastrophic	Death, toxic release off-site with detrimental effect, huge financial loss
4	Major	Extensive injuries, loss of production capability, off-site release with no detrimental effects, major financial loss
3	Moderate	Medical treatment required, on-site release contained with outside assistance, high financial loss
2	Minor	First aid treatment, on-site release immediately contained, medium financial loss
1	Insignificant	No injuries, low financial loss

Qualitative Risk Analysis Matrix – Level of Risk
Table3

Likelihood		Consequence Label				
		1	2	3	4	5
		Insignificant	Minor	Moderate	Major	Catastrophic
A	Almost Certain	High	High	Extreme	Extreme	Extreme
B	Likely	Medium	High	High	Extreme	Extreme
C	Possible	Low	Medium	High	Extreme	Extreme
D	Unlikely	Low	Low	Medium	High	High
E	Rare	Low	Low	Medium	High	High

Appendix

1. Public Liability Insurance
2. Workers Compensation Insurance
3. Risk Assessment Table
4. Fireworks Checklist
5. Toolbox Talk
6. Post Display Report
7. Incident Report

LIU Certificate of Currency

LIU
Certificate of Currency

Primary Liability Insurance Certificate of Currency

This Certificate:

- Is issued as a matter of information only and confers no rights upon the holder.
- Does not amend, extend or alter the coverage afforded by the Policy(ies) listed.
- Is only a summary of the cover provided.
- Reference must be made to the current Policy wording for full details.
- Is current at the date of issue only.

This certificate confirms that the under mentioned Policy is effective in accordance with the details shown:

Insured:	Howard & Sons Pyrotechnics Displays Pty Ltd; Howard & Sons Pyrotechnics (Manufacturing) Pty Ltd; Howard & Sons Pyrotechnics (Australia) Pty Ltd; Light Motion; Whizz Bang Whoosh; Fusion Entertainment
Policy Number:	BN-CAS-15-400250F4
Period of Insurance:	From: 31st March 2016 To: 31st March 2017 Both dates 4:00pm local standard time
Limit of Indemnity:	AUD20,000,000 any one Occurrence in respect of public liability and in the aggregate during the Period of Insurance in respect of Product liability.
Remarks:	**This Policy includes a USA – Canada (incl. Domiciled Operations & Jurisdiction) Endorsement.**

LIBERTY MUTUAL INSURANCE COMPANY
A.B.N. 61 086 083 605

1 April 2016
Date

For and on behalf of
Liberty International Underwriters

Liberty International Underwriters is a trading name of Liberty Mutual Insurance Company (ABN 086 083 605). Incorporated in Massachusetts, U.S.A. (The liability of members is limited).

Liberty International Underwriters | Liberty Mutual | LIU THE PEOPLE, THE PRODUCTS, THE CAPACITY.™ | Liberty | LIU | Liberty Mutual

Employers Mutual NSW Limited
GPO Box 4143
Sydney NSW 2001

DX 10175
Sydney Stock Exchange

P: 02 8251 9000
P: 1800 469 931 (toll free)
F: 02 8251 9495 Claims
F: 02 8251 9496 Underwriting

www.employersmutual.com.au

Employers Mutual
Since 1910

CERTIFICATE OF CURRENCY

30/06/2015

HOWARD & SONS PYROTECHNICS
(DISPLAYS) PTY LTD
PO BOX 7118
BAULKHAM HILLS NSW 2153

1. STATEMENT OF COVERAGE

The following policy of insurance covers the full amount of the employer's liability under the Workers Compensation Act 1987.

This Certificate is valid from **30/06/2015** **to** **30/06/2016**

The information provided in this Certificate of Currency is correct at: 30/06/2015

2. EMPLOYERS INFORMATION

POLICY NUMBER	98603016
LEGAL NAME	HOWARD & SONS PYROTECHNICS (DISPLAYS) PTY LTD
TRADING NAME	
ABN	25 001 297 481
ACN	001 297 481

WIC #	Industry	Numbers of Workers+	Wages*
254100	Explosive Manufacturing	40	879,531.00

WorkCover Industry Classification number
+ Number of workers includes contractors/deemed workers
* Total wages estimated for the current period

3. IMPORTANT INFORMATION

Principals relying on this certificate should ensure it is accompanied by a statement under *section 175B* of the *Workers Compensation Act 1987*. Principals should also check and satisfy themselves that the information is correct and ensure that the proper workers compensation insurance is in place ie. Compare the number of employees on site to the average number of employees estimated; ensure that the wages are reasonable to cover the labour component of the work being performed; and confirm that the description of the industry/industries noted is appropriate.

A Principal contractor may become liable for any outstanding premium of the sub-contractor if the principal has failed to obtain a statement or has accepted a statement where there was reason to believe it was false.

Yours Faithfully,

.....
Underwriting Department
Employers Mutual
UW Group 5

NSW WorkCover Scheme

UW032G.doc

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of R
On-site Risk Assessment								

HOWARD SONS PYROTECHNICS
Ph.: +61 2 9899 4096 Fax: +61 2 9899 4196
www.howardsfireworks.com.au

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
Loading & Unloading of Product & Equipment								
Loading/unloading area	C	4	Extreme	Area clear of pedestrians and should occur away from traffic and/or vehicle movements	Howard & Sons Pyrotechnics	D	2	Low
				To occur on even stable surface with brake applied appropriately				
				Safety vests to be worn when moving in and around area				
				First Aid Staff on work site at all times				
				Emergency services contacted if necessary				
Manual Handling	C	3	High	Training in good lifting technique	Howard & Sons Pyrotechnics	D	2	Low
				Actions & movement to be performed so they won't cause undue discomfort or pain, smoothly & with control, in a balanced & comfortable position, without extreme ranges of joint movement, without repetitive bending, twisting, & overreaching				
				Posture & position to adopt safe & healthy working posture & have periodic rest breaks				
				Minimal manual handling of product				
				Minimal lifting &/or movement with product &/or equipment				
				Loading into & out of vehicle occurs as close as possible to the warehouse				
				Clear access from in loading area at all times				
				Instruction to exercise care in such circumstances				
				To seek assistance when necessary				
				Trolleys, Forklifts, Cranes etc. used where necessary				
				Unnecessary personnel kept clear of loading area				
Premature ignition of Pyrotechnics Products	C	4	Extreme	No smoking, naked flames, hot works, & static electricity, is to be conducted within loading area	Howard & Sons Pyrotechnics	D	2	Low
				Product is packaged in UN certified dangerous goods packaging with appropriate signage and labelling				
				Trained in the appropriate handling of pyrotechnics				
				Products never to be left unattended and to be supervised at all times				
				Only the product required should be in the loading area				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				Minimal manual handling of product				
				Unnecessary personnel kept clear of loading area				
Fire, Explosion	C	3	High	No sources of ignition in loading area	Howard & Sons Pyrotechnics	D	2	Low
				Removal of combustible material from the loading area				
				PPE provided to all H&S Crew				
				No smoking, naked flames, hot works, & static electricity, is to be conducted within loading area				
				Water extinguishers positioned at loading area				
				Dry chemical or CO2 extinguishers positioned at loading area				
				Products must be packaged in UN certified dangerous goods packaging with appropriate signage and labelling				
				Trained in the appropriate handling of pyrotechnics				
				Escape facilities / means of escape from loading area				
				Regular fire drills & practice of emergency evacuation procedures				
				Work suspended or abandoned if necessary due to fire				
				Evacuation procedures carried out if necessary				
				Emergency Services contacted if necessary				
Faulty Equipment	C	4	Extreme	Electrical Equipment is regularly inspected & tested in accordance with the requirements of the Australian Standards AS/NZS 3760 prior to the equipment being placed into service at the workplace	Howard & Sons Pyrotechnics	D	2	Low
				Hired Electrical equipment requires that the person who hires or leases equipment to another person must ensure that the equipment is regularly inspected				
				Routine visual checks are carried out by all equipment users				
				Use of fixed or portal residual current devices				
				Training & instruction undertaken by crew in the safe use of equipment				
				Crew document any faults or malfunctions				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
Dangerous Goods Transportation								
Premature ignition of Pyrotechnics Products	C	4	Extreme	No smoking, naked flames, hot works, & static electricity within vehicle	Howard & Sons Pyrotechnics	D	2	Low
				Total quantity of fireworks transported is restricted to 50kg NEQ for fireworks classified 1.3G, and 100kg NEQ for fireworks classified 1.4G or 1.4S				
				Comply with AS 2187.1 Explosives – Storage, transport and use				
				Comply with Australian Explosives Code for transport				
				No preloaded shells in mortar tubes				
				Products must be packaged in UN certified dangerous goods packaging with appropriate signage and labelling				
				Products packed in accordance to State Regulations for transportation				
				Loads to be secured to minimise movement during transport				
				Trained in the appropriate handling or pyrotechnics				
				Products never to be left unattended and to be supervised at all times				
				H&S licenced dangerous goods vehicle (where applicable)				
				Appropriate Dangerous Goods Placards displayed				
Vehicle Accident	C	5	Extreme	Appropriate valid Drivers Licence	Howard & Sons Pyrotechnics	D	3	Medium
				Traffic laws and regulations followed				
				Regularly attend Transportation of Dangerous Goods and Explosives driving course				
				Products packed in accordance to State Regulations for transportation				
				Comply with AS 2187.1 Explosives – Storage, transport and use				
				Comply with Australian Explosives Code for transport				
				Appropriate Dangerous Goods Placards to be displayed				
				Emergency Procedure Guide onboard vehicle				
				Dangerous Goods Shipping documents onboard vehicle				
				Vehicles do not use roadways where placard loads are prohibited				
				Appropriate fire extinguishers are fitted to vehicle				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				Appropriate First Aid Kits are fitted to vehicle				
				Fire Brigade to be contacted and informed of the net amount of explosives onboard				
				Area is to be evacuated minimum of 100 metres (refer to Australian Explosives Code)				
Fire, Explosion	C	4	Extreme	No sources of ignition within vehicle	Howard & Sons Pyrotechnics	E	3	Medium
				PPE provided to all H&S Crew				
				No smoking, naked flames, hot works, & static electricity within vehicle				
				Appropriate fire extinguishers are fitted to vehicle				
				Products must be packaged in UN certified dangerous goods packaging with appropriate signage and labelling				
				Products packed in accordance to State Regulations for transportation				
				Comply with AS 2187.1 Explosives – Storage, transport and use				
				Comply with Australian Explosives Code for transport				
				Trained in the appropriate handling of pyrotechnics				
				Emergency Procedure Guide onboard vehicle				
				Dangerous Goods Shipping documents onboard vehicle				
				Appropriate fire extinguishers are fitted to vehicle				
				Appropriate First Aid Kits are fitted to vehicle				
				Evacuation procedures carried out if necessary				
				Fire Brigade to be contacted and informed of the net amount of explosives onboard				
				Area is to be evacuated (refer to Australian Explosives Code)				
Stolen vehicle, Hijacking	D	5	High	Comply with AS 2187.1 Explosives – Storage, transport and use	Howard & Sons Pyrotechnics	E	3	Medium
				Comply with Australian Explosives Code for transport				
				Police to be contacted immediately				
				State Explosives Authority to be contacted immediately				
				H&S to cooperate in tracking stolen property				
				Authorities to be provided with a full list of products				
				Emergency Procedure Guide onboard vehicle				
				Dangerous Goods Shipping documents onboard vehicle				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
Vehicle movements at Work Site	C	3	High	Event Management &/or Venue Management informed of Dangerous Goods vehicle estimated time of arrival	Howard & Sons Pyrotechnics	D	2	Low
				Vehicle movement plan to be developed with consultation with Event Management &/or Venue Management				
				Work activities should function away from traffic and/or vehicle movements				
				Appropriate parking designated for Dangerous Goods vehicle				
				Hazard lights to be used whilst moving in and around work site				
				Safety vests to be worn when moving in and around work site				
				Vehicles to be escorted while moving in and around work site				
				Security contracted where possible to manage traffic and people movements around traffic and/or vehicle movements				
				First Aid Staff on work site at all times				
				Emergency services contacted if necessary				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
Working On-Site (Bump In/Set Up, Bump Out/Pack up)								
Inadequate &/or inappropriate work &/or firing site	B	4	Extreme	Trained to identifying, assessing, eliminating or controlling, and monitoring risks	Howard & Sons Pyrotechnics	D	2	Low
				Trained in ways to deal with risks by substituting, isolating, minimising, implementing change, and use of personal protective equipment				
				Comply with AS 2187.4 minimum exclusion zone for an outdoor fireworks display				
				Licenced Pyrotechnician must establish an exclusion zone				
				Comply with AS 2187.4 minimum exclusion zone for an outdoor fireworks display				
				Security to be contracted to maintain exclusion zones where necessary				
				Work to be suspended &/or abandoned until exclusion zone is secured & maintained				
Unauthorised Personnel	B	3	High	Only H&S Pyrotechnicians & Assistants directly associated with the display are allowed within the exclusion zone	Howard & Sons Pyrotechnics	D	1	Low
				No spectators are to be located within the exclusion zones				
				Site sign in to be completed if required				
				Work to be suspended &/or abandoned until exclusion zone is secured & maintained				
Premature ignition of Pyrotechnics Products	C	4	Extreme	Setting up of a display at the site is only permitted on the day of the display, unless WorkCover has been specifically notified of a longer setting up time	Howard & Sons Pyrotechnics	D	2	Low
				Products to be prepared in accordance with the manufacture's &/or supplier's operating & safety instructions				
				No sources of ignition within site				
				No smoking, naked flames, hot works, & static electricity within area				
				Products must be packaged in UN certified dangerous goods packaging with appropriate signage and labelling				
				Minimal product unpacked at one time				
				Avoid unnecessary handling of product				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				Trained in the appropriate handling of products				
				All unnecessary personnel kept clear of area				
				Products never to be left unattended and to be supervised at all times				
				Trained in all H&S policies and procedures				
				Products are not to be altered in any way				
				Product labels and instructions must be read and adhered to for each product				
				All products are placed in plastic mortars and covered with fire and water resistant tape to prevent prematurely igniting from flames or sparks				
Manual Handling	C	3	High	Training in good lifting technique	Howard & Sons Pyrotechnics	D	2	Low
				Actions & movement to be performed so they won't cause undue discomfort or pain, smoothly & with control, in a balanced & comfortable position, without extreme ranges of joint movement, without repetitive bending, twisting, & overreaching				
				Posture & position to adopt safe & healthy working posture & have periodic rest breaks				
				Minimal manual handling of product				
				Minimal lifting &/or movement with product &/or equipment				
				Clear access in loading area at all times				
				Instruction to exercise care in such circumstances				
				To seek assistance when necessary				
				Trolleys, Forklifts, Cranes etc. used where necessary				
				Unnecessary personnel kept clear of loading area				
Rubbish, broken glass	B	2	High	Sufficient enclosed rubbish bins available on work site	Howard & Sons Pyrotechnics	D	1	Low
				All rubbish created by display to be removed from the firing and work sites				
				Crew are to minimise rubbish and litter where possible				
				First Aid Kit present at all work sites				
				Crew are to ensure that all rubbish and litter is picked up and disposed of immediately				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				Glass is not be brought onto the work or firing sites by crew or any other personnel and must not be used in the display				
Trip/Slip hazards &/or electrocution from e.g. leads, cables, wires etc.	B	4	Extreme	Electrical Equipment is regularly inspected & tested in accordance with the requirements of the Australian Standards AS/NZS 3760 prior to the equipment being placed into service at the workplace	Howard & Sons Pyrotechnics	D	2	Low
				Hired Electrical equipment requires that the person who hires or leases equipment to another person must ensure that the equipment is regularly inspected				
				Routine visual checks are carried out by all equipment users				
				Use of fixed or portal residual current devices				
				Training & instruction undertaken by crew in the safe use of equipment				
				Crew document any faults or malfunctions				
				Earth leakage protection tested and fitted				
				Electrical equipment to be used in accordance to instructions				
				Cables and wires flown overhead where possible				
				Rubber mats, cable runs, cable protectors etc. used where necessary				
				Adequate lighting in area				
				Wear appropriate footwear				
Weather Extremes	B	3	High	Weather conditions monitored leading up to event date, throughout Bump In / Set Up, firing & Bump Out / Pack up	Howard & Sons Pyrotechnics	D	2	Low
				Where applicable, release helium balloon to test wind speed and direction				
				Reposition firing site &/or audience based on weather particularly mindful of debris fallout zones				
				Appropriate protection packed in line with reported weather conditions				
				Protective clothing provided and worn as required				
				Individuals to take appropriate action to prevent exposure				
				Adequate work site shelters provided appropriate for the conditions				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				Adequate water supply provided				
				Display layout reviewed on site based on weather conditions				
				Display to be downsized and larger products abandoned if required				
				Head Pyrotechnician to cancel display due to extreme conditions where health and safety will be compromised				
Fire, Explosion	C	4	Extreme	No sources of ignition within site	Howard & Sons Pyrotechnics	E	3	Medium
				PPE provided to all H&S Crew				
				No smoking, naked flames, hot works, & static electricity within area				
				Removal of combustible material from the work site				
				Water extinguishers positioned at area				
				Dry chemical or CO2 extinguishers positioned at area				
				Products must be packaged in UN certified dangerous goods packaging with appropriate signage and labelling				
				Trained in the appropriate handling of pyrotechnics				
				Display layout and design carefully considered with relation to potential fires at firing positions				
				Escape facilities / means of escape from area				
				Products are loaded they are placed in tubes & covered with fire and water resistant tape to prevent flames &/or sparks prematurely igniting products				
				Work suspended &/or abandoned if necessary				
				Emergency Evacuation procedures prepared with consultation from Event Management & Venue Management				
				Fire Brigade to be contacted and informed of the net amount of explosives onboard				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
Howard & Sons Firing System Test Procedures								
Premature ignition of Pyrotechnics Products	C	4	Extreme	No sources of ignition within site	Howard & Sons Pyrotechnics	D	2	Low
				No smoking, naked flames, hot works, & static electricity within area				
				All Crew & personnel made aware of the intended test				
				All rubbish and excess equipment to be removed from the display area				
				Communication system to be in place between Head Pyrotechnician and all crew				
				No crew to be in the immediate area of product				
				Minimal crew required during testing				
				All unnecessary personnel kept clear				
				Products never to be left unattended and to be supervised at all times				
				Trained in all H&S policies and procedures				
				Arming activation key or button should not be armed/engaged at any time during testing				
				All products are placed in plastic mortars and covered with fire and water resistant tape to prevent prematurely igniting from flames or sparks				
Exclusion Zone breach, Loss of crowd control	B	3	High	Comply with AS 2187.4 minimum exclusion zone for an outdoor fireworks display	Howard & Sons Pyrotechnics	D	1	Low
				Licenced Pyrotechnician must establish an exclusion zone				
				Appropriate safety tape / barriers / fences in place upon H&S Crew arrival on-site				
				Comply with AS 2187.4 minimum exclusion zone for an outdoor fireworks display				
				Security to be contracted to maintain exclusion zones where necessary				
				Minimal crew required during testing				
				All unnecessary personnel kept clear				
				Work to be suspended &/or abandoned until exclusion zone is secured & maintained				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				Emergency Services contacted if necessary				
Faulty Firing System	C	3	High	Equipment is regularly inspected & tested in accordance with the requirements of the Australian Standards AS/NZS 3760 prior to the equipment being placed into service at the workplace	Howard & Sons Pyrotechnics	E	1	Low
				Routine visual checks are carried out by all equipment users				
				Crew document any faults or malfunctions				
				All Crew & personnel made aware of the intended test				
				All rubbish and excess equipment to be removed from the display area				
				Communication system to be in place between Head Pyrotechnician and all crew				
				No crew to be in the immediate area of product				
				Minimal crew required during testing				
				All unnecessary personnel kept clear				
				No person is to cover any part of their body over any products				
				Firing systems contains a disarm sequence and safety key				
				Arming activation key or button should not be used at any time during testing				
				Head Pyrotechnician to switch firing system off while crew diagnosis any missing shots				
Fire, Explosion	C	4	Extreme	No sources of ignition within site	Howard & Sons Pyrotechnics	E	3	Medium
				PPE provided to all H&S Crew				
				No smoking, naked flames, hot works, & static electricity within area				
				Removal of combustible material from the work site				
				Water extinguishers positioned at area				
				Dry chemical or CO2 extinguishers positioned at area				
				Trained in the appropriate handling of pyrotechnics				
				Display layout and design carefully considered with relation to potential fires at firing positions				
				Escape facilities / means of escape from area				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of R
				Products are loaded they are placed in tubes & covered with fire and water resistant tape to prevent flames &/or sparks prematurely igniting products				
				Work suspended &/or abandoned if necessary				
				Emergency Evacuation procedures prepared with consultation from Event Management & Venue Management				
				Fire Brigade to be contacted and informed of the net amount of explosives onboard				

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Moving Preloaded display from Work Site to Firing Site/Area								
Sleeping display i.e. loaded show set up & ready for firing time	C	4	Extreme	Unauthorised persons are not permitted to enter the exclusion zone during sleeping display	Howard & Sons Pyrotechnics	D	2	Low
				Pyrotechnician dedicated to security duties until the display				
				Security to be contracted where applicable				
				The area has a barrier which is not easily traversed				
				The immediate area is posted with appropriate hazard and warning signs				
				The product and Pyrotechnicians are fully protected from the external hazards				
				Only H&S Pyrotechnicians & Assistants directly associated with the display are allowed within the exclusion zone				
				All unnecessary personnel kept clear of area				
Transporting preloaded display e.g. with trolleys & trailers	B	4	Extreme	An exclusion zone around trailers & trolleys to be maintained throughout movement	Howard & Sons Pyrotechnics	D	2	Low
				Isolation of the product by fixed barriers such as tarpaulins over the trailers and fireworks				
				Security to be contract where applicable				
				Exclusion of ignition sources within exclusion zone				
				Provision of suitable fire extinguishers				

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Firing of display								
Pyrotechnics Products	C	4	Extreme	No sources of ignition within site	Howard & Sons Pyrotechnics	D	2	Low
				No smoking, naked flames, hot works, & static electricity within area				
				Head Pyrotechnician to keep all Crew & personnel updated of time to firing				
				All rubbish and excess equipment to be removed from the display area				
				Communication system to be in place between Head Pyrotechnician and all crew				
				No crew to be in the immediate area of product				
				Minimal crew required during display				
				All unnecessary personnel kept clear				
				Products never to be left unattended and to be supervised at all times				
				Trained in all H&S policies and procedures				
				All products are placed in plastic mortars and covered with fire and water resistant tape to prevent prematurely igniting from flames or sparks				
				Head Pyrotechnician to report time remaining of display				
Aviation	B	5	Extreme	CASA and ASA notified by H&S of all outdoor pyrotechnic display at least 7 working days prior to the display	Howard & Sons Pyrotechnics	E	3	Medium
				H&S Crew to monitor the skies throughout standby mode				
				H&S Crew to delay start if any aviation is spotted in the immediate area				
				When specified by CASA, H&S to contact CASA 30mins prior to				
				Display to be suspended or abandoned if aviation is spotted in the immediate area				
Exclusion Zone breach, Loss of crowd control	B	3	High	Comply with AS 2187.4 minimum exclusion zone for an outdoor fireworks display	Howard & Sons Pyrotechnics	D	1	Low
				Licenced Pyrotechnician must establish an exclusion zone	Howard & Sons Pyrotechnics			
				Appropriate safety tape / barriers / fences in place upon H&S Crew arrival on-site				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				Comply with AS 2187.4 minimum exclusion zone for an outdoor fireworks display				
				Security to be contracted to maintain exclusion zones where necessary				
				Minimal Crew required during display				
				All unnecessary personnel kept clear				
				Display to be suspended &/or abandoned until exclusion zone is secured & maintained				
				Emergency Services contacted if necessary				
Debris, Burning fallout	B	3	High	Site Inspection conducted prior to final display design and layout to determine appropriate products and size as well as determining Fallout zones	Howard & Sons Pyrotechnics	D	2	Low
				Research conducted with regards to weather conditions and taken into account with final display design and layout				
				Comply with AS 2187.4 minimum exclusion zone for an outdoor fireworks display				
				Licenced Pyrotechnician must establish an exclusion zone				
				Appropriate safety tape / barriers / fences in place upon H&S Crew arrival on-site				
				Comply with AS 2187.4 minimum exclusion zone for an outdoor fireworks display				
				Weather and wind conditions to be constantly monitored throughout the display day and leading up to firing time				
				PPE provided to all H&S Crew				
				Display to be suspended or abandoned if exclusion zone is breached				
				Display layout to be adjusted where necessary				
				Specially designed trailers with adjustable firing platforms used where necessary so that the angle of the firing platforms can be adjusted according to wind conditions				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				Display designing allows larger calibre and high risk products to be safety priorities. Firing system program allows these prioritized products to be eliminated. Once the display has begun, the Head Pyrotechnician can de-select these prioritized products from highest to lowest depending on the conditions during the display				
				Head Pyrotechnician to cancel display due to extreme conditions where health and safety will be compromised				
				First Aid Staff & Kits to be available throughout display and immediately after				
				Emergency services to be contacted if necessary				
Fire, Explosion	C	4	Extreme	Display layout and design carefully considered with relation to potential fires at firing positions	Howard & Sons Pyrotechnics	E	3	Medium
				PPE is provided to all H&S Crew				
				No smoking, naked flames, hot works, & static electricity within area				
				Removal of combustible material from the work site				
				Water extinguishers positioned on all work sites for outdoor displays				
				Dry chemical or CO2 extinguishers positioned on all work sites for indoor displays				
				Products are loaded they are placed in tubes & covered with fire and water resistant tape to prevent flames &/or sparks prematurely igniting products				
				Display suspended or abandoned if necessary due to fire				
				Escape facilities / means of escape from area				
				Emergency Evacuation procedures prepared with consultation from Event Management & Venue Management				
				Evacuation procedures carried out if necessary				
				Specified exclusions zones are to be maintained throughout display				
				Security to be contracted to maintain exclusions zones				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				Display to be downsized and larger calibre products abandoned if required				
				Head Pyrotechnician to suspend &/or cancel display due to extreme conditions where health and safety will be compromised				
				First Aid Staff available throughout display and immediately after				
				First Aid Kits on site throughout the display and immediately after				
				Emergency services to be contacted if necessary				
				Fire Brigade to be contacted and informed of the net amount of explosives				
Noise	B	2	High	Provide hearing protection which must be worn by all H&S Crew	Howard & Sons Pyrotechnics Event Management	D	1	Low
				H&S Crew located sufficient distance away from firing positions				
				Display design to ensure all pyrotechnics used are of acceptable noise ratings				
				State Explosive Authority, Local Council, Local Fire Brigade and Local Police are notified by Howard & Sons of a proposed pyrotechnic display at least 7 working days prior to the display				
				Immediate neighbouring residence are notified by Event Management in writing at least 48hours prior to the display and given instructions to care for pets, animals, livestock				
				For specific pyrotechnic categories, the following decibel readings have been recorded:				
				Special Effects = Low < 90db				
				Ground Effect = Medium < 100db				
				Aerial Shells = High > 100db				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
Firing of Close Proximity display								
Pyrotechnics Products placed in firing position	C	4	Extreme	No sources of ignition within site	Howard & Sons Pyrotechnics	D	2	Low
				Warning signs at all egress points of the stage				
				No smoking, naked flames, hot works, & static electricity within area				
				Head Pyrotechnician to keep all Crew & personnel updated of time to firing				
				All rubbish and excess equipment to be removed from the display area				
				Communication system to be in place between Head Pyrotechnician and all crew				
				All unnecessary personnel kept clear				
				Products never to be left unattended and to be supervised at all times				
				Crew trained in all H&S policies and procedures				
				Minimise the exposure time of pyrotechnics on a stage environment				
				Double check pyrotechnic positions integrity once all stage work on stage has ceased				
				Have fire extinguishers at agreed positions				
				Carry out checklist prior to firing				
Talent/Performers/Stage Crew breach of exclusion zones during performance	B	5	Extreme	Chief Operator to have visual sight of all talent/performers and all pyrotechnic positions OR if not possible, the operator is to be in direct communication with dedicated safety observers who can communicate safety clearances	Howard & Sons Pyrotechnics	E	3	Medium
				Chief Operator must perform an induction process with all personal required on stage during performance.				
				Clear agreed communications must be established between stage crew and Pyrotechnicians				
				All pyrotechnic positions to be clearly marked, so they are visible in all lighting conditions				
Exclusion Zone breach, Loss of crowd control	B	3	High	Comply with AS 2187.4 minimum exclusion zone for an outdoor fireworks display	Howard & Sons Pyrotechnics	D	1	Low

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				Licenced Pyrotechnician must establish an exclusion zone				
				Appropriate safety tape / barriers / fences in place upon H&S Crew arrival on-site				
				Security to be contracted to maintain exclusion zones where necessary				
				All unnecessary personnel kept clear				
				Display to be suspended &/or abandoned until exclusion zone is secured & maintained				
				Emergency Services contacted if necessary				
Debris, Burning fallout	B	3	High	Site Inspection conducted prior to final display design and layout to determine appropriate products and size as well as determining Fallout zones	Howard & Sons Pyrotechnics	D	2	Low
				Ensure any fans or ventilation cannot alter the smoke /fallout dispersion				
				Only use high quality Close Proximity/Theatrical pyrotechnic effects that produce minimum fallout, debris and smoke				
				Ensure pyrotechnic installation complies with manufacturer's recommended exclusion zone and or compliance data of product				
				Licenced Pyrotechnician must establish an exclusion zone				
				Appropriate safety tape / barriers / fences in place upon H&S Crew arrival on-site				
				PPE provided to any personal within the exclusion zone				
				Display to be suspended or abandoned if exclusion zone is breached				
				Display layout to be adjusted where necessary				
				First Aid Staff & Kits to be available throughout display and immediately after				
				Ensure any flammable material near the exclusion zone has current fire protection tags				
				Fire Fighting Equipment to be in position				
				Emergency services to be contacted if necessary				
Fire, Explosion	C	4	eme	Display layout and design carefully considered with relation to potential fires at firing positions	Howard & Sons Pyrotechnics	E	3	dium

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			Extr	PPE is provided to all H&S Crew				Med
				No smoking, naked flames, hot works, & static electricity within area				
				Removal of combustible material from the work site				
				Water extinguishers positioned on all work sites for outdoor displays				
				Dry chemical or CO2 extinguishers positioned on all work sites for indoor displays				
				Products are loaded they are placed in tubes & covered with fire and water resistant tape to prevent flames &/or sparks prematurely igniting products				
				Display suspended or abandoned if necessary due to fire				
				Escape facilities / means of escape from area				
				Emergency Evacuation procedures prepared with consultation from Event Management & Venue Management				
				Evacuation procedures carried out if necessary				
				Specified exclusions zones are to be maintained throughout display				
				Security to be contracted to maintain exclusions zones				
				Display to be downsized and larger calibre products abandoned if required				
				Head Pyrotechnician to suspend &/or cancel display due to extreme conditions where health and safety will be compromised				
				First Aid Staff available throughout display and immediately after				
				First Aid Kits on site throughout the display and immediately after				
				Emergency services to be contacted if necessary				
				Fire Brigade to be contacted and informed of the net amount of explosives				
				Ensure any flammable material in the venue is located outside exclusion zones and has current fire protection tags.				

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Noise	B	2	High	All stage personal to be briefed on all noise levels of effects	Event Management	D	1	Low
				Hearing protection to be worn if required				
				Display design to ensure all pyrotechnics used are of acceptable noise ratings				
				State Explosive Authority, Local Council, Local Fire Brigade and Local Police are notified by Howard & Sons of a proposed pyrotechnic display at least 7 working days prior to the display				
				Immediate neighbouring residence are notified by Event Management in writing at least 48hours prior to the display and given instructions to care for pets, animals, livestock				
				For specific pyrotechnic categories, the following decibel readings have been recorded:				
				Special Effects = Low < 90db				
				Concussion = High > 100db				

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Howard & Sons Post-Display Procedures								
Live Pyrotechnics Products after display	C	3	High	Post display inspection is to be conducted no sooner than 15 minutes after the concluded display	Howard & Sons Pyrotechnics	D	2	Low
				Live Products are to be handled with care, removed from mortars and re-packaged in UN certified dangerous goods packaging with appropriate signage and labelling				
				Trained in the appropriate handling or pyrotechnics				
				Trained in all H&S policies and procedures				
				Products are not to be altered in any way				
				Safety Exclusion Zones are to be maintained until H&S Head Pyrotechnician gives the all clear				
Manual Handling	C	3	High	Training in good lifting technique	Howard & Sons Pyrotechnics	D	2	Low
				Actions & movement to be performed so they won't cause undue discomfort or pain, smoothly & with control, in a balanced & comfortable position, without extreme ranges of joint movement, without repetitive bending, twisting, & overreaching				
				Posture & position to adopt safe & healthy working posture & have periodic rest breaks				
				Minimal manual handling of product				
				Minimal lifting &/or movement with product &/or equipment				
				Loading to occurs as close as possible to the worksite				
				Clear access in loading area at all times				
				Instruction to exercise care in such circumstances				
				To seek assistance when necessary				
				Trolleys, Forklifts, Cranes etc. used where necessary				
				Unnecessary personnel kept clear of loading area				
Fire, Explosion	C	4	Extreme	PPE is provided to all H&S Crew	Howard & Sons Pyrotechnics	E	3	Medium
				No hot works or smoking is to be conducted within 30m of products and work site				
				Water extinguishers positioned on all work sites for outdoor displays				

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				Dry chemical or CO2 extinguishers positioned on all work sites for indoor displays				
				Water extinguishers positioned with H&S Crew during displays				
				Display layout and design carefully considered with relation to potential fires at firing positions				
				Products placed in tubes, then covered with fire and water resistant tape to prevent flames and/or sparks prematurely igniting products				
				Display suspended or abandoned if necessary due to fire				
				Evacuation procedures carried out if necessary				
				Emergency Services contacted if necessary				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
General Risks Associated								
Inappropriate Personal Protection Equipment	C	3	High	Appropriate PPE in clothing, equipment or substance designed to be worn by someone to protect them from risks of injury or illness	Howard & Sons Pyrotechnics	D	2	Low
				Gearing protection devices such as ear huffs, ear plugs				
				Respirators				
				Eye and face protection such as goggles				
				Safety helmets and sun hats				
				Glovers and safety boots				
				Clothing such as high visibility vest, life jackets, fire retardant coveralls				
Temporary structures, Damaged, overloaded, unstable, incomplete, exceeds height, close proximity to electricity, slips & falls, falling objects	B	4	Extreme	Structures to be constructed by contractors with relevant qualifications	Structural Contractor	D	2	Low
				Structures must be fit for purpose, erected, modified, inspected and dismantled by a certified and competent person	Event Management			
				Use materials within manufacturers specifications				
				Structures tested by appropriate contractors before use				
				Structures must be erected on a firm and stable base				
				First Aid Kit at all work sites				
				H&S Crew trained in First Aid				
				Emergency Services contacted when necessary				
Heights, edges and changes in height	C	3	High	Secure form of structure or access system to be implemented	Event Management	D	2	Low
				Use engineering controls such as edge protection, containment sheeting barriers, toe boards, fencing, tool lanyards, catch platforms, and netting etc.				
				Implement administrative controls such as safe work methods statements, and establish exclusion zones, to prevent access by unauthorised persons				
				Use fall protection, fall arrest systems, and PPE such as				
				H&S Crew trained in recognition and prevention				
				Hazards identified and removed where possible				
				Appropriate signage used to inform personnel of hazard				
				Sufficient lighting used in these areas				

Area of Risk	Likelihood	Consequence	Level of Risk	Mitigation / Existing Risk Controls	Responsible to Implement & Monitor/Supervise	Residual Likelihood	Residual Consequence	Residual Level of Risk
				First Aid Kits available on work site				
				First Sid Staff on work site at all time				
				Emergency services contacted when necessary				
Emergency Evacuation	B	4	Extreme	Howard & Sons to be briefed and consulted in relation to on-site emergency plans	Venue Management	E	1	Low
				H&S Crew to follow and assist Venue Management & Event Management to carry out their emergency procedures				
				Emergency Service contacted immediately				
				Adequate communication system between event personnel				
				Adequate communication to participants and spectators				
				Once threat has subsided and re-entry is granted, H&S Crew to be given initial access to check pyrotechnics before all other event personnel, participants, spectators access the site				
				Event Personnel, participants and spectators are only granted access after H&S Crew give the all clear				
Other Neighbouring Events	C	3	High	Road and Traffic management put in place where necessary	Event Management	E	1	Low
				Disclosure of event details to effected stakeholders				
				Neighbour notification of event details				
				Community awareness of event details				
Medical Emergency	C	3	High	Designated emergency services accesses	Emergency Services	D	2	Low
				Strategically placed First Aid Stations with accessibility for emergency services				
				First Aid Staff onsite a all times				
				Communication methods readily available to contact Emergency Services				
				Crowd management plans for guiding emergency vehicles				
Ill-informed Event Personnel	B	3	High	To be informed prior to arriving onsite of all work occurring on the work site	Event Management	D	2	Low
				Notified and warned about products on the work site and the safety zone in place				
				During stand-by mode, H&S Crew to inform all immediate personnel of the intended display, firing positions and safety zone				

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Use of Forklifts	B	4	Extreme	Trained and qualified operator holding a valid Certificate of Competency for forklift operating	Forklift Contractor	D	2	Low
				Pre-operation check to be conducted before use				
				Service log book checked to ensure all service requirements have been met				
				Assess equipment for evidence of damage, structural weaknesses, etc.				
				Assess work site with regards to layout, surfaces, traffic, ventilation, uneven ground, interferences etc.				
				Forklift traffic management plan prepared & documented with consultation with Event Management & Venue Management				
				Detailed site map show layout, traffic flow, speed limits, hazardous areas & specific safety instructions provided				
				Arrangement & marking of roads, intersections, pedestrian walkways & vehicle parking/loading areas				
				Movement of forklifts controlled with particular forklifts operating in designated areas				
				Signs confirming to Australian Standard AS 1319 prominently displayed				
				Speed limits applied taking into account of stability under braking & stopping distances				
				Physical barriers used where necessary to mark pedestrian walkways				
				Clearly defined safety zones designated around area				
				Competent forklift operators only have access to keys & forklift				

Fireworks display checklist

The checklist is a guidance document only and may be used to identify areas of potential risk for fireworks displays and to assist licence holders when developing a written risk assessment required by WorkCover NSW. Some of the content may not be applicable to fireworks (single use) licence holders, particularly in relation to the use of aerial display shells and aerial salutes. Authorities when notified of a fireworks display may also request the completed checklist and/or the separate risk assessment. More information about fireworks display requirements is contained in Australian Standard AS 2187.4 and the Operational Conditions Fireworks.

1. SITE/LOCATION

1.1 Type of firing site (tick appropriate box):

☐ Public park	☐ School	☐ Barge	☐ Sports oval	☐ Entertainment centre
☐ Pontoon	☐ Arena	☐ Theatre	☐ Building roof	☐ Reception centre
☐ Showground	☐ Jetty	☐ Film set	☐ Private property	☐ Exhibition centre
☐ TV studio	☐ Other			

1.2 Name of the owner of the firing site:

1.3 Address of the firing site:

1.4 Phone number of the owner of the firing site:

☐☐☐☐☐☐☐☐☐☐

If you answer **YES** to either of the following questions the fireworks display **MUST NOT** proceed.

1.5 Has the owner refused permission for the site to be used for a fireworks display?

☐ Yes ☐ No

1.6 Is the firing point less than 250 metres from a dangerous goods store, such as an explosives magazine, petrol station, LPG storage or other fuel storage facility?

☐ Yes ☐ No

Refer to section 3 AS 2187.4

If you answer **YES** to the following questions your proposed fireworks display has a high level of risk.

Use the hints to reduce the risk.

1.7 What are the dimensions of the firing site?

☐☐☐☐ m X ☐☐☐☐ m

1.8 Is the firing site too small to comply with the minimum clearance distance required in section 3 AS 2187.4?

☐ Yes ☐ No

Hint: Reduce the size/calibre of the aerial shells to be used.

1.9 Are powerlines or a telecommunications installation – eg mobile phone tower – likely to interfere with the fireworks display?

☐ Yes ☐ No

Hint: Use ground display fireworks with effects that are limited to a safe height.

1.10 Is there inadequate water – eg no tap or fire hose – on the site?

☐ Yes ☐ No

Hint: Develop a written plan to provide adequate water for fire fighting in consultation with the local fire service.

1.11 Is there any combustible material – eg dry grass, dead undergrowth, fuels, or a temporary structure such as a marquee – on the site or in the drop zone?

☐ Yes ☐ No

Hint: Remove or wet down combustible materials prior to the display. Consult with the local fire service.

1.12 Is the firing site difficult to access for emergency services, such as the fire brigade or ambulance?

☐ Yes ☐ No

Hint: Develop a written plan to provide adequate water for fire fighting in consultation with the local fire service and ambulance service. Allow them seven days to comment.

1.13 Are neighbouring buildings likely to be affected by smoke from the fireworks display and therefore have their fire alarms activated?

☐ Yes ☐ No

Hint: Provide a copy of this completed checklist and the completed fireworks notification form to building owners so that they can make an informed decision about how to respond.

1.14 Is the firing site poorly lit?

☐ Yes ☐ No

Hint: Consider directional floodlights that can be fixed to a vehicle and provide staff with torches for searching the site during clean-up.

2. NEIGHBOURS

2.1 Description of the firing site (tick the appropriate box)

☐ Residential area ☐ Rural area ☐ Industrial area ☐ Indoor

If you answer **YES** to any of the following questions, refer to the hints given below, consider **STARTING THE DISPLAY EARLIER AND/OR REDUCING NOISE DURING THE DISPLAY** – eg do not use salutes or fireworks that produce loud reports or ear-piercing screeches.

Note: If you change the start time you will need to amend your notification to the authorities and those likely to be affected – eg stables, kennels and veterinary clinics.

2.2 Are neighbours likely to be disturbed by the noise from the fireworks?

☐ Yes ☐ No

Hint: Notify those likely to be affected by advertising in the local paper and dropping leaflets in letterboxes, outlining display times and vantage points. There are those who like and those who dislike firework displays. Most children will be keen to watch and take the best vantage points. Others may take the opportunity to get away and avoid the spectacle. Forewarned is forearmed.

2.3 Is there a hospital within 250 metres of the firing site? (250 metres is the minimum distance as outlined in AS 2187.4)

☐ Yes ☐ No

Hint: You must obtain the written approval the manager of the hospital (they may request that noise be minimised after 9pm).

Always consider weather conditions and noise.

2.4 Is there a nursing home or aged-care facility within 250 metres of the firing site?

☐ Yes ☐ No

Hint: You must obtain the written approval of the manager of the nursing home or aged-care facility (they may request that noise be minimised after 9pm). The manager may wish to inform their residents about the display and about best vantage points and proposed times.

2.5 Is there a racetrack or other public assembly within 250 metres of the firing site?

☐ Yes ☐ No

Hint: Consult those likely to be affected. Coordinate your display times to avoid race days or other public assemblies.

2.6 Are there stables, kennels, or veterinary clinics within 500 metres of the firing site?

☐ Yes ☐ No

Hint: You must obtain the written approval of those likely to be affected within the 500 metres. Depending on the site and the surrounding landforms, owners of animal and bird sanctuaries, horses and dogs, beyond 500 metres and up to 1000 metres of the firing site, should also be notified of the event.

2.7 Who has the responsibility to notify or consult with those living near the firing site? (Tick appropriate box)

☐ Event organiser ☐ Client ☐ Venue manager ☐ Pyrotechnician

Note: The pyrotechnician is ultimately responsible for notification in accordance with the NSW Explosives Regulation.

Hint: If you give this responsibility to someone else you should obtain written confirmation that it has been done prior to the display.

2.8 How will the neighbours be notified of the display? (Tick appropriate box)

☐ Letterbox drop ☐ Door knock ☐ Newspaper ☐ TV ☐ Radio

3. NOTIFICATION DETAILS

3.1 Is the site on water?

☐ Yes ☐ No

If **YES**, apply to NSW Roads and Maritime Services (RMS) for an aquatic licence. NSW Water Police may also need to be notified.

3.2 Is the firing site within three nautical miles (6km) of an airport?

☐ Yes ☐ No

3.3 Will the highest aerial shell rise more than 400 feet (122 metres) above the ground? (If firing from a roof top add the height of the building)

☐ Yes ☐ No

3.4 Is the firing site under a regular flight path?

☐ Yes ☐ No

If you answered **YES** to 3.2, 3.3 or 3.4 **notify the Civil Aviation Safety Authority (CASA) and Air Services Australia**. See Part 101.500 of the *Civil Aviation Safety Regulation 1998*. If the firing site is near an airbase the RAAF should also be informed.

3.5 Is the fireworks display occurring between October and March?

☐ Yes ☐ No

If **YES**, notify the local Rural Fire Service or local NSW Fire and Rescue.

3.6 Is there a total fire ban in place?

☐ Yes ☐ No

If **YES**, notify the local Rural Fire Service Control Centre or local NSW Fire and Rescue.

3.7 What is the local council area covering the firing site?

4. AUTHORITIES TO BE NOTIFIED

☐ WorkCover NSW ☐ Council ☐ NSW Police ☐ NSW Fire and Rescue ☐ NSW Rural Fire Service

☐ NSW Water Police ☐ NSW RMS ☐ CASA ☐ Air Services Australia

☐ Other – please provide details

5. INSURANCE DETAILS

5.1 Does the pyrotechnician have public liability insurance?

☐ Yes

Condition 4.6 of the Operational Conditions Fireworks requires the licence holder to obtain liability insurance, even if the event is for charity.

5.2 Is a certificate of currency available?

☐ Yes ☐ No

Catalogue No. **WC05629** WorkCover Publications Hotline **1300 799 003**
WorkCover NSW, 92–100 Donnison Street, Gosford, NSW 2250
Locked Bag 2906, Lisarow, NSW 2252 | WorkCover Assistance Service **13 10 50**
Website **workcover.nsw.gov.au**

ISBN 978 1 74341 356 2

Site Toolbox Talk (Outdoor Pyrotechnics Display)

Business Name:	
Display Date:	
Event Name:	
Event Location:	
Firing Site:	

Item	List items / Notes	Identified hazards	Notes
What is in the display today	Land/Barge Display		
	Lancework/Set Piece		
	Gerbs/Fountains		
	Close Proximity SFX		
	Comets, Minebags, Multi-Shot Barrages & Roman Candles		
	Aquatic Effects		
	Aerial Shells (inc. Salutes)		
	Firejet (Isopar)		
	Firejet (LPG)		
	Special Manufactured/Equip		

Item	Where	Who / how to contact	Notes
Fireworks Display Site (Exclusion Zone/Fencing)			
Fireworks Display Site Crowd Security Plan			
Evacuation procedures & assembly area			
Vehicle Parking/Use Point with Dangerous Goods			
First Aid provisions (Kits, Ambulance or Centre)			
First Aid provisions (Person)			
Fire extinguishers, fire appliances truck/installed fire hoses etc			
Site & Area Emergency Contact Numbers			
Toilets and amenities			
Weather forecast, Wind Direction, Fallout Zones			
Sun protection, Wet weather protection			
Use of power tools, use of machinery			
Manual handling reminder			
PPE – Check shoes & clothing			
No Smoking & smoking areas			
Special warnings: trip hazards, slip hazards, etc.			

Confirmation that all information was provided and understood

Name	Position	Signature

Toolbox talk conducted by:

Date: Signature

Site Toolbox Talk (Indoor Pyrotechnics Display)

Business Name:
Display Date:
Event Name:
Event Location:
Firing Site:

Item	List items / Notes	Identified hazards	Notes
What is in the display today	Indoor Display		
	Concussion/Maroons		
	Gerbs, Silver Jets		
	Close Proximity SFX		
	Comets, Mines		
	Flutter Effects		
	Waterfall, Airburst		
	Firejet (Isopar)		
	Firejet (LPG)		
	Special Manufactured/Equip		

HOWARD SONS PYROTECHNICS
Ph: 02 9899 4096 Fax: 02 9899 4196
www.howardsfireworks.com.au

Document Set ID: 7193241
Version: 1, Version Date: 07/06/2016

Item	Where	Who / how to contact	Notes
Pyrotechnics Display Site (Exclusion Zone/Barriers)			
Pyrotechnics Display Site Crowd Security Plan			
Evacuation procedures & assembly area			
Vehicle Parking/Loading Point with Dangerous Goods			
First Aid provisions (Kits, Ambulance or Centre)			
First Aid provisions (Person)			
Fire extinguishers, fire appliances/installed fire hoses etc			
Site & Area Emergency Contact Numbers			
Toilets and amenities			
Work by others-staging, audio, lighting, riggers etc			
Performers/Band/Talent/Camera/Security Crew to be brief of effects, visual and noise levels and safety distances-safe zones			
Use of power tools, use of machinery			
Manual handling reminder			
PPE – Check shoes & clothing			
No Smoking & smoking areas			
Special warnings: trip hazards, slip hazards, etc.			
Venue ventilation for smoke/fumes			
Venue fire system smoke or heat system isolated			
Secure storage in venue & security (key system)			
Safe use and spillage prevention of Isopar Liquid or Pyrotechnic powder or LPG, CO2 Gas			
Performers/Band/Talent/Camera/Security Crew to be brief of effects, visual and noise levels and safety distances-safe zones			
Time schedule for contracted supplies delivery such as Isopar, LPG, CO2 etc			
Time schedule for contracted services; rigging work, forlift, scissor lift use etc			

Time schedule for audio, lighting or performance tests or rehearsals that may impact work schedule, communication and PPE must be used			
Time schedule for rehearsal/test firing			
Firing control location personnel and communications			
Safety spotter & location, personnel and communications			
Safety or Emergency Situation Response Plan			
Time schedule for bump out			
Check Rigging Slings Steel/Synthetic			

Confirmation that all information was provided and understood

Name	Position	Signature

Toolbox talk conducted by:

Date:

Signature

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POST DISPLAY REPORT			PF Build Date 10/06/14
EVENT MANAGEMENT	EVENT NAME	DISPLAY DATE	
DISPLAY EXACT FIRING TIME:		EXACT DURATION OF DISPLAY:	
WEATHER CONDITIONS:		WIND SPEED AND DIRECTION:	
REPORT OF ANY INCIDENTS AS A RESULT OF PRODUCT(S) OR EQUIPMENT:			
ELECTRICAL EQUIPMENT REPORTS:(DAMAGED OR FAULTY EQUIPMENT/ TECHNICAL PROBLEMS ETC.):			
FIRING EQUIPMENT -			
C02 -		FLAME SYSTEM -	
OTHER -			
REPORT OF ANY PRODUCT / QUALITY / HEIGHT / FALLOUT / PERFORMANCE ISSUES / MALFUNCTIONS ETC.: (POSITIVE OR NEGATIVE)			
SFX PRODUCTS -		LANCES / LOGOS / SET PIECES -	
CLOSE PROXIMITY PRODUCTS -		ROMAN CANDLES -	
MINES -		COMETS -	
MULTI SHOT BARRAGES -		AERIAL SHELLS -	
OTHER -			
RECOMMENDATIONS FOR NEXT DISPLAY AT THIS SITE:			
PRODUCT NOT SUITABLE FOR SITE:			
CLIENTS COMMENTS:			
Post Display Report completed by :			

Print Name :	0	Signature :		Date :	26/09/2014 10:29

PRODUCT RETURNS REPORT				
EVENT MANAGEMENT		EVENT NAME		DISPLAY DATE
CATEGORY	PRODUCT DESCRIPTION	PRODUCT ID	QUANTITY	REASON
e.g. Shell	*100mm Gold Twice Gold*	*210.11*	*1*	*faulty igniter*

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TIME SHEET

EVENT MANAGEMENT							EVENT NAME					DISPLAY DATE		
PYRO'S NAME	CLASSIF.	DATE	TRANSPORT / TRAVEL TIMES				ON-SITE			BREAK	TRANSPORT / TRAVEL TIMES			
			Transport OR Travel	Start Time	Finish Time	SUB TOTAL	Start Time	Finish Time	SUB TOTAL	SUB TOTAL	Transport OR Travel	Start Time	Finish Time	SUB TOTAL
e.g. Andrew Howard	*HSP6*	*01-Jan-13*	*Transport*	*12:00 PM*	*2:00 PM*	*2.00*	*2:00 PM*	*10:00 PM*	*8.00*	*0.50*	*Travel*	*10:00 PM*	*12:00 AM*	*2.00*
0	0	00-Jan-00												
0	0	00-Jan-00												
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CREW REPORT				
EVENT MANAGEMENT		EVENT NAME	DISPLAY DATE	
PYROTECHNICIAN'S NAME	CLASSIF.	DATE	DUTIES & RESPONSIBILITIES COMPLETED	COMMENTS
e.g. Andrew Howard	*HSP6*	*01-Jan-13*	*e.g. Managed crew and site, liaise with client, allocated shells, loaded shells, loaded ground product, FireOne testing, Fired display via FireOne Timecode, Bump out*	*e.g. good work*
0	0	00-Jan-00		
0	0	00-Jan-00		
0	0	00-Jan-00		
0	0	00-Jan-00		
0	0	00-Jan-00		
0	0	00-Jan-00		
0	0	00-Jan-00		
0	0	00-Jan-00		
0	0	00-Jan-00		
0	0	00-Jan-00		
0	0	00-Jan-00		

EXPENSES REPORT					
EVENT MANAGEMENT			EVENT NAME		DISPLAY DATE
PYROTECHNICIAN'S NAME	CLASSIF.	DATE	RECEIPT FROM	EXPENSE FOR	Amount $
e.g. Andrew Howard	*HSP6*	*01-Jan-13*	*e.g. Bunnings*	*e.g. Cable Ties*	*$10.00*
0	0	00-Jan-00			
0	0	00-Jan-00			
0	0	00-Jan-00			
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NSW WorkCover

Notifying and recording an incident or injury

If there is a serious injury or illness, a death or a dangerous incident, you must report it to us immediately and notify your insurer within 48 hours.

You must also:

- provide first aid and make sure the worker gets the right care
- record it in the register of injuries
- help the worker recover at work by identifying and offering suitable employment, staying connected and planning with your worker, their doctor, and your insurer

Problems reporting a workplace injury

If you are a worker and your employer has not notified your workplace injury to the insurer or will not provide you with their workers compensation insurance policy number, our Customer Service Centre (call 13 10 50) can look up the employer details so you can call the insurer direct.

Notifying us

If a notifiable incident occurs, you must notify us immediately on 13 10 50 as an urgent investigation may be needed. The incident site must be preserved until an Inspector attends (or the inspector or regulator directs otherwise).

A "notifiable incident" under the work health and safety legislation relates to:

- the death of a person
- a serious injury or illness of a person
- a potentially dangerous incident

Significant penalties apply if you fail to notify an incident.

We have a notifying us fact sheet with more information about what constitutes a serious injury or illness or a dangerous incident.

Other incidents where workers compensation is payable

You must notify your insurer within 48 hours of becoming aware a worker has received a workplace injury if workers compensation is payable or may be payable (such as for time lost and/or medical expenses). You may avoid paying a claims excess if there is an injury by notifying your insurer within 48 hours.

Further information

How to make a claim

There are a number of steps you have to take after notifying us of an injury or incident if you want to make a claim.

Some of these include:

- if time off work is needed, see a doctor and have them complete a WorkCover certificate of capacity
- provide that certificate of capacity with the worker's declaration completed to your employer or their insurer (attach any bills or receipts for treatment)
- have an injury management plan
- make all reasonable efforts to return to work as soon as possible

For more detailed information, see our making a claim section.

WHS incident notification: Fact sheet

INCIDENT NOTIFICATION FACT SHEET

Overview

This fact sheet provides general guidance for persons on the notification of 'notifiable incidents' as outlined in the Work Health and Safety Act (WHS Act).

The WHS Act requires the regulator to be notified of certain 'notifiable incidents'. This fact sheet will help you decide whether the regulator needs to be notified of a work-related injury, illness or dangerous incident under the Act.

Work health and safety regulators are committed to preventing work-related deaths and injuries. Notifying the regulator of 'notifiable incidents' can help identify causes of incidents and prevent similar incidents at your workplace and other workplaces.

The WHS Act

In summary Part 3 of the WHS Act requires:

- notification of a 'notifiable incident' to the regulator after becoming aware of it
- the regulator asks — written notification with 48 hours of the request, and
- of the incident site until an inspector arrives or directs otherwise (subject to some exceptions).

Failing to notify is a criminal offence and penalties apply.

What is a 'notifiable incident'

A 'notifiable incident' as outlined in the WHS Act is:

- death of a person
- 'serious injury or illness', or
- 'dangerous incident'

arising out of the conduct of a business or undertaking at a workplace.

'Notifiable incidents' may relate to any person— whether an employee, contractor or member of the public.

Only the most serious safety incidents are intended to be notifiable, and they trigger requirements to preserve the incident site pending further direction from the regulator—see page 7.

Serious injury or illness

Notification is required of a serious injury or illness of a person if they require any of the following:

Serious injury or illness table	
Trigger	**Example**
Immediate treatment as an in-patient in a hospital	Admission into a hospital as an in-patient for any duration, even if the stay is not overnight or longer. It does not include: • Out-patient treatment provided by the emergency section of a hospital (i.e. not requiring admission as an in-patient) and immediate discharge. • Subsequent corrective surgery such as that required to fix a fractured nose.
Immediate treatment for the amputation of any part of the body	Amputation of a limb such as arm or leg, body part such as hand, foot or the tip of a finger, toe, nose or ear. It does not include: Bruising or minor abrasion or laceration to the skin.
Immediate treatment for a **serious** head injury	• Fractured skull, blood clot or bleeding in the brain, damage to the skull to the extent that it is likely to affect organ/face function. • Head injuries resulting in temporary or permanent amnesia.
Immediate treatment for a **serious** eye injury	• Injury that results in or is likely to result in the loss of the eye or total or partial loss of vision. • Injury that involves an object penetrating the eye (for example metal fragment, wood chip). • Exposure of the eye to a substance which poses a risk of serious eye damage. It does not include: Eye exposure to a substance that merely causes irritation.
Immediate treatment for a **serious** burn	A burn requiring intensive care or critical care which could require compression garment or a skin graft.

Serious injury or illness table	
Trigger	**Example**
	It does not include: A burn that merely requires washing the wound and applying a dressing.
Immediate treatment for the separation of skin from an underlying tissue (such as degloving or scalping)	Separation of skin from an underlying tissue such that tendon, bone or muscles are exposed (de-gloving or scalping).
Immediate treatment for a spinal injury	Injury to the cervical, thoracic, lumbar or sacral vertebrae including the discs and spinal cord.
Immediate treatment for the loss of a bodily function	Loss of consciousness, loss of movement of a limb or loss of the sense of smell, taste, sight or hearing, or loss of function of an internal organ. It does not include: • mere fainting, or • a sprain, strain or fracture.
Immediate treatment for serious lacerations	Serious lacerations that cause muscle, tendon, nerve or blood vessel damage or permanent impairment. • Deep or extensive cuts. • Tears of wounds to the flesh or tissues—this may include stitching to prevent loss of blood and/or other treatment to prevent loss of bodily function and/or infection.
Medical treatment within 48 hours of exposure to a substance.	

Notification is also required for the following prescribed serious illness:

- Any infection to which the carrying out of work is a significant contributing factor, including any infection that is reliably attributable to carrying out work:
    1. with micro-organisms
    2. that involves providing treatment or care to a person
    3. that involves contact with human blood or body substances
    4. that involves handling or contact with animals, animal hides, skins, wool or hair, animal carcasses or animal waste products.
- The following occupational zoonoses contracted in the course of work involving handling or contact with animals, animal hides, skins, wool or hair, animal carcasses or animal waste products:
    1. Q fever
    2. Anthrax
    3. Leptospirosis

4. Brucellosis
5. Hendra Virus
6. Avian Influenza
7. Psittacosis.

Treatment

'Treatment' means the kind of treatment that would be required for a serious injury or illness and includes 'medical treatment' (i.e. by a registered medical practitioner), treatment by a paramedic or treatment by a registered nurse practitioner.

Even if immediate treatment is not readily available, for example because the incident site is rural or remote or because the relevant specialist treatment is not available, the notification must still be made.

Dangerous Incidents (commonly referred to as 'near misses')

Notification is also required of any incident in relation to a workplace that exposes a worker or any other person to a serious risk resulting from an immediate or imminent exposure to:

- an uncontrolled escape, spillage or leakage of a substance
- an uncontrolled implosion, explosion or fire
- an uncontrolled escape of gas or steam
- an uncontrolled escape of a pressurised substance
- electric shock:
    - examples of electrical shock that are not notifiable
        - shock due to static electricity
        - extra low voltage' shock (i.e. arising from electrical equipment less than or equal to 50V AC and less than or equal to 120V DC)
        - defibrillators are used deliberately to shock a person for first aid or medical reasons
    - examples of electrical shocks that are notifiable
        - minor shock resulting from direct contact with exposed live electrical parts (other than 'extra low voltage') including shock from capacitive discharge
- the fall or release from a height of any plant, substance or thing
- the collapse, overturning, failure or malfunction of, or damage to, any plant that is required to be design or item registered under the Work Health and Safety Regulations
- the collapse or partial collapse of a structure
- the collapse or failure of an excavation or of any shoring supporting an excavation
- the inrush of water, mud or gas in workings, in an underground excavation or tunnel, or
- the interruption of the main system of ventilation in an underground excavation or tunnel.

Any of these occurrences are reportable as a 'dangerous incident' (or 'near miss') if a person is exposed to a serious risk from immediate or imminent exposure to a hazard.

For most hazards such as plant or a structure collapsing a person will need to be in the immediate vicinity to be exposed to a serious risk to their health or safety.

However some hazards such as an uncontrolled leak of a hazardous gas or a fire can travel towards a person and expose them to a serious risk to health and safety away from the original source.

A dangerous incident includes both immediate serious risks to health or safety, and also a risk from an immediate exposure to a substance which is likely to create a serious risk to health or safety in the future, for example asbestos or chemicals.

Only occurrences involving a 'serious risk' are notifiable taking into account the likelihood of a serious illness or injury occurring from the incident. This would include any situation which seriously endangers or threatens the health or safety of a person.

Only work-related incidents are notifiable

Incidents are only notifiable if:

- is a death
- 'serious injury or illness' is suffered or there is a dangerous incident ('near miss' as described above), **and**
- incident arises out of the conduct of the business or undertaking.

An incident is not notifiable just because it happens at or near a workplace.

Incidents may occur for reasons which do not have anything to do with the conduct of the business or undertaking, for example:

- worker or another person suffers a heart attack while at work which is unrelated to work or the conduct of the business or undertaking
- amateur athlete is injured while playing on the local soccer team and requires immediate medical treatment (this is not work)
- person driving to work is injured in a car accident (where driving is not part of their work)
- person with epilepsy has a seizure at work.

These kinds of incidents are **not notifiable**.

Work-related incidents that occur outside a workplace may be notifiable

Work-related incidents may occur outside the workplace and these may still be notifiable if they involve a death, serious illness or injury or a dangerous incident. For example:

- object like a hand tool falls off a multi-storey building under construction hitting a person below
- collapse that causes a risk of serious injury to persons adjacent to the construction site
- awning over a shop-front collapses, hitting a person passing by underneath.

Appendix A provides more information about incidents that occur at public places or sporting events.

Still unsure?

If you are still unsure about whether a particular incident should be notified then contact your regulator for guidance.

Who is responsible for notifying?

Any person conducting a business or undertaking (PCBU) from which the 'notifiable incident' arises must ensure the regulator is notified immediately after becoming aware it has occurred.

Procedures should be put into place to ensure work health and safety incidents are promptly brought to the relevant individual's attention, for example a manager and then notified to the regulator, if required.

For more information on the definition of a PCBU see the Interpretive Guidelines: the meaning of 'person conducting a business or undertaking'.

Incidents involving multiple businesses or undertakings

If the 'notifiable incident' arises out of more than one business or undertaking then each must ensure that the incident has been notified to the regulator.

There is no need for all duty holders to notify—only one needs to.

In these circumstances the duty holders must, so far as is reasonably practicable, consult, cooperate and coordinate to put appropriate reporting and notification arrangements in place.

For example contractors at a construction workplace may agree that the principal contractor for the workplace will notify of all 'notifiable incidents' that occur at the workplace.

Incidents involving a 'State-based contractor working for a Commonwealth entity'

Workplaces shared by a Commonwealth entity and one or more state-based contractors may be covered by both Commonwealth and state or territory work health and safety (WHS) laws.

For example an asbestos removal company is engaged by the Department of Defence (Defence) to carry out asbestos removal work at Randwick Army Barracks in Sydney and a dangerous incident occurs (as defined above). Because the incident has occurred at a place where work is carried out for Defence (on behalf of the Commonwealth) the company must ensure that both Comcare and WorkCover NSW are notified of the incident. Defence and the company may co-operate so that only one notification is made to Comcare on behalf of both.

When and how to notify

A regulator must be notified of a 'notifiable incident' immediately after the PCBU becomes aware of the incident arising from the business or undertaking.

The notice must be given by the fastest possible means which could be by telephone or in writing, for example by facsimile, email or other electronic means.

If notifications are made by telephone follow-up information may be requested either by telephone or in writing. If you are asked to follow-up in writing you must provide the required information in writing within 48 hours of the request being made.

Regulators have adopted a commonsense approach to assessing whether an incident has been notified immediately. In other words incidents must be notified immediately as the particular circumstances permit.

In general a PCBU 'becomes aware' of a notifiable incident at the time that any of their workers in supervisory or managerial roles become aware of that incident. For example if a worker suffers a serious injury and notifies their immediate supervisor it is at this point that the PCBU is considered to be aware of the incident. It is essential that PCBUs develop appropriate internal communication systems to ensure safety incidents are promptly brought to the relevant persons' attention.

What information will be requested?

A clear description of the incident with as much detail as possible will help the regulator assess whether or not the incident is notifiable and the need for a follow-up investigation by the regulator.

Where insufficient details are provided in a telephone notification, the regulator may contact the notifier if further information is required. All WHS regulators have agreed that the following (see table below) information should be collected as a minimum at the point of incident notification.

Information required	Example
What happened: an overview	• Provide an overview of what happened. • Nominate the type of notifiable incident—was it death, serious injury or illness, or 'dangerous incident' (as defined above)?
When did it happen	Date and time.
Where did it happen	Incident address. Details that describe the specific location of the notifiable incident—for example section of the warehouse or the particular piece of equipment that the incident involved — to assist instructions about site disturbance.
What happened: detailed description	Detailed description of the notifiable incident.
Who did it happen to	• Injured person's name, salutation, date of birth, address and contact number. • Injured person's occupation. • Relationship of the injured person to the entity notifying.
How and where are they being treated (if applicable)	• Description of serious injury or illness — i.e. nature of injury. • Initial treatment of serious injury or illness. • Where the patient has been taken for treatment.
Who is the person conducting the business or undertaking (there may be more than one)	• Legal and trading name. • Business address (if different from incident address), ABN/ACN and contact details including phone number and email.

Information required	Example
What has/is being done	Action taken or intended to be taken to prevent recurrence (if any).
Who is notifying	• Notifier's name, salutation, contact phone number and position at workplace. • Name, phone number and position of person to contact for further information (if different from above).

Although all of this information may not be available at the time of notification, PCBUs must still notify the regulator immediately of the incident and provide the information they have. The rest of the information will be collected by the regulator at a later time.

Can work continue where the incident occurred?

The person with management or control of a workplace at which a notifiable incident has occurred must ensure, so far as is reasonably practicable, that the site where the incident occurred is not disturbed until an inspector arrives at the site or directs otherwise (whichever is earlier).

Requirements to preserve the incident site apply to any plant, substance, structure or thing associated with the notifiable incident. This means that any evidence that may assist an inspector to determine the cause of the incident is preserved.

An incident site may be disturbed:

- assist an injured person
- remove a deceased person
- make the site safe or to minimise the risk of a further notifiable incident
- facilitate a police investigation, or
- an inspector has given a direction to do so either in person or by telephone.

The sooner the regulator is notified, the sooner the site can be released.

If however after arriving at the incident site an inspector considers that it should remain undisturbed in order to facilitate investigation of the incident they may issue a non-disturbance notice. This notice must specify the period for which the notice is to apply—no more than seven days.

Penalties apply if an individual or body corporate fails to preserve a site.

Site Preservation requirements only apply to the incident site

Requirements to preserve a site only apply in relation to the immediate area where the incident occurred— not the whole workplace.

If you are unsure about what you need to do to preserve a site, ask the regulator when you notify them of the incident.

You can also ask the regulator to be relieved of your legal obligations to preserve the incident site at this point—even if you don't meet the strict criteria above.

Upgrading Notifications

If a notifiable incident escalates from a serious illness or injury to a death the regulator must be separately notified of the death immediately after becoming aware that the person has died.

Record keeping requirements

The notifier must keep a record of the notifiable incident for at least five years from the date of notification. Penalties apply for failing to do so.

As a practical matter these records should include any directions or authorisations given by an inspector at the time of notification (including authorisations to disturb incident sites) and any confirmation you received from the regulator that you notified them about the incident.

Contact details for regulators

To notify a 'notifiable incident' contact the regulator in the relevant jurisdiction (see table below).

Further information

For further information on notifiable incidents including the relevant laws please contact your work health and safety regulator.

	Other regulators		
Jurisdiction	**Regulator**	**Telephone**	**Website**
New South Wales	WorkCover NSW	13 10 50	Not applicable for notifications
Victoria	WorkSafe Victoria	1800 136 089	worksafe.vic.gov.au
South Australia	SafeWork SA	1300 365 255	safework.sa.gov.au
Western Australia	WorkSafe WA	1300 307 877	worksafe.wa.gov.au
Australian Capital Territory	WorkSafe ACT	02 6207 3000	worksafety.act.gov.au
Tasmania	Workplace Standards TAS	1300 366 322 (Tas) 03 6233 7657 (External)	wst.tas.gov.au
Northern Territory	NT WorkSafe	1800 019 115	worksafe.nt.gov.au
Commonwealth	Comcare	1300 366 979	comcare.gov.au

Appendix A

Public places and sporting events

Workplaces may also be public or partly public places, for example:

- parks, streets
- transport
- centres
- facilities
- and colleges
- care facilities, hospitals and medical centres
- cafes, restaurants, hotels and other kinds of public accommodation.

Incidents involving bystanders, visitors, students, patrons or other members of the public are only notifiable if:

- is a death
- 'serious injury or illness' is suffered or there is a dangerous incident ('near miss' as described above),
  and
- incident arises out of the conduct of a business or undertaking.

An incident may arise out of the conduct of a business or undertaking for example because of:

- way a work activity is organised (for example inadequate safety precautions)
- way equipment or substances are used (for example lifts, machinery)
- condition of a workplace (for example poorly maintained or slippery floors)
- of someone who is not a worker at the workplace.

If a visitor at a shopping centre is taken to hospital after sustaining a serious fracture then the incident would be notifiable. If a visitor is taken to hospital because of their pre-existing medical condition (for example heart attack, epileptic seizure at a shop) this would not be notifiable as it did not result from the conduct of the business or undertaking.

Incidents during sports activities

Work health and safety duties apply in relation to professional sports people for whom sport is work and sport organised by businesses or undertakings. They do not apply to purely social or recreational activities or activities organised by wholly volunteer associations that do not employ anyone.

For more information about the way the work health and safety laws affect volunteers and organisations with volunteers refer to the online resource kit published by Safe Work Australia.

Some sports injuries may arise from 'work' (for example a professional AFL footballer) while others may not (a local amateur club footballer).

Sports injuries are **not notifiable** if arising out of the normal conduct of a sports activity for example rough and tumble of a game.

Sports injuries **are notifable** only if arising out of the conduct of a business or undertaking for example:

- way a work activity involving sport is arranged
- way the sporting activity is managed or controlled

- condition, design or maintenance of premises or equipment, or
- way work is carried out for example inadequate supervision.

Examples of notifiable incidents include:

- condition of the premises or sports equipment was a factor in the incident — for example where a participant suffers an injury requiring admission as an inpatient at a hospital due to tripping over on a potholed tarmac surface, or
- was inadequate supervision to prevent an incident— like ensuring the safe use of equipment used by students on a school excursion or failings in the organisation and management of an event.

ACCIDENT / INCIDENT / NEAR MISS REPORT FORM

Injured Person	
Name:	
Address:	
Contact Number:	
Signature:	
Date Of Incident:	
Time:	
Location Of Incident:	
List of Injuries Sustained	
Reported To	
Name:	
Contact Number	
Signature	
Witnesses	
1. Name:	
Contact Number	
Signature	
2. Name:	
Contact Number	
Signature	
3. Name:	
Contact Number	
Signature	
Brief Description Of Incident	
HEAD PYROTECHNICIANS INVESTIGATION REPORT	
List all contributing factors:	

Which factors can be corrected?
Indicate Action Taken, Recommended Action And By Whom
Reported to:

Government Authority	
Name:	
Date:	
Company Director	
Name:	
Date:	
OHS Representative	
Name:	
Date:	
Event Management	
Name:	
Date:	
Venue Management	
Name:	
Date:	
Report completed by	
H&S Pyrotechnician	
Name:	0
Position:	
Date:	
Signature:	