



# Heavy Vehicle Fires – Causes and prevention

A recognised project under the NHVR's *Heavy Vehicle Safety Initiatives* program

[artsa.com.au/conferences](http://artsa.com.au/conferences)



National Bulk Tanker Association

## Bulk Tanker incident and accident data

### 2016 - 2018

# Collecting data since January 2016 – based on key word searching of the internet

Incident	Date	Road	Location	State	Single or	Roll over	Loss of coi	Fatalities	Critical	Classification	Type of Vehicle	Product	URL	Title	Description
1	13/07/2016												<a href="http://www.theage.com.au/victoria/melbourne-express-thursday-july-14-2016">http://www.theage.com.au/victoria/melbourne-express-thursday-july-14-2016</a>	Melbourne Express: Thursday, July 14, 2016	A chemical truck is leaking hydrochloric acid on
1	13/07/2016												<a href="http://www.9news.com.au/national/2016/07/14/08/06/chemical-spill-calder">http://www.9news.com.au/national/2016/07/14/08/06/chemical-spill-calder</a>	Truck leaks hydrochloric acid on Calder Freeway	The tanker pulled over on the freeway north o
1	13/07/2016												<a href="http://www.heraldsun.com.au/news/victoria/pedestrian-hit-by-car-on-ferntree">http://www.heraldsun.com.au/news/victoria/pedestrian-hit-by-car-on-ferntree</a>	Pedestrian hit by car on Ferntree Gully Road, chemical spill on Calder ...	Nine News Melbourne (@9NewsMelb) July 13
1	14/07/2016	Calder Freeway	Gisbourne	Vic	Single	No	Yes	0	No	Leak due to mechar	Semi-trailer	Sulphuric acid	<a href="http://www.bendigoadvertiser.com.au/story/4029744/acid-spill-on-the-calder">http://www.bendigoadvertiser.com.au/story/4029744/acid-spill-on-the-calder</a>	Acid spill on the Calder Freeway   Bendigo Advertiser	UPDATE 4.20pm: Northbound lanes of the Cal
2	20/07/2016												<a href="http://www.couriermail.com.au/news/queensland/bdouble-truck-rolls-on-cu">http://www.couriermail.com.au/news/queensland/bdouble-truck-rolls-on-cu</a>	Highway re-opens after truck roll	AUTHORITIES have reopened the Cunningham
2	20/07/2016												<a href="http://www.chinchillanews.com.au/news/truck-crash-cunningham-hwy-caus">http://www.chinchillanews.com.au/news/truck-crash-cunningham-hwy-caus</a>	Highway open to traffic following rollover	Authorities will now face the painstaking task
2	20/07/2016												<a href="http://www.brisbanetimes.com.au/queensland/cunninghams-gap-emergenc">http://www.brisbanetimes.com.au/queensland/cunninghams-gap-emergenc</a>	Chemical scare closes highway after truck rolls	The Cunningham Highway has reopened after
2	20/07/2016												<a href="http://www.couriermail.com.au/news/queensland/bdouble-truck-rolls-on-cu">http://www.couriermail.com.au/news/queensland/bdouble-truck-rolls-on-cu</a>	B-Double truck rolls on Cunningham Highway at Cunningham's Gap ...	Chemical truck rollover. QLD ... Nine News Bri
2	21/07/2016	Cunningham High	Cunninghar	Qld	Single	Yes	Yes	0	No	Tanker rollover	B-double	Anhydrous Amonia	<a href="http://www.9news.com.au/national/2016/07/21/19/19/cunningham-highw">http://www.9news.com.au/national/2016/07/21/19/19/cunningham-highw</a>	Cunningham Highway reopens after 17-hour clean-up from ...	... Highway reopens after 17-hour clean-up fro
2	21/07/2016												<a href="http://www.brisbanetimes.com.au/queensland/cunninghams-gap-emergenc">http://www.brisbanetimes.com.au/queensland/cunninghams-gap-emergenc</a>	Chemical scare closes highway after truck rolls - Brisbane Times	The Cunningham Highway has reopened after
3	29/07/2016												<a href="http://www.brisbanetimes.com.au/queensland/motorbike-rider-injured-as-t">http://www.brisbanetimes.com.au/queensland/motorbike-rider-injured-as-t</a>	Motorbike rider injured as tanker leaks hydrochloric acid near ...	A tanker carrying hydrochloric acid collided wi
3	29/07/2016												<a href="http://mypolice.qld.gov.au/blog/2016/07/30/fatal-traffic-crash-gladstone-5/">http://mypolice.qld.gov.au/blog/2016/07/30/fatal-traffic-crash-gladstone-5/</a>	Fatal traffic crash, Gladstone	Hanson Road remains closed while the crash s
3	30/07/2016												<a href="http://mypolice.qld.gov.au/blog/2016/07/30/fatal-traffic-crash-gladstone-5/">http://mypolice.qld.gov.au/blog/2016/07/30/fatal-traffic-crash-gladstone-5/</a>	Fatal traffic crash, Gladstone - Queensland Police News	Hanson Road remains closed while the crash s
3	30/07/2016												<a href="http://www.brisbanetimes.com.au/queensland/motorbike-rider-injured-as-t">http://www.brisbanetimes.com.au/queensland/motorbike-rider-injured-as-t</a>	Motorbike rider injured as tanker leaks hydrochloric acid near Gladstone	A tanker carrying hydrochloric acid has collide
3	1/08/2016	Hanson Road	Gladstone	Qld	Multi	No	Yes	1	Yes	Collision involving c	A-double	Hydrochloric Acid	<a href="http://www.gladstoneobserver.com.au/news/breaking-car-motorbike-crush">http://www.gladstoneobserver.com.au/news/breaking-car-motorbike-crush</a>	UPDATE: Police seize dash-cam footage from truck in Gladstone ...	A motorbike rider and truck driver, also involv
4	18/08/2016												<a href="http://www.smh.com.au/nsw/truck-crash-near-sydney-airport-causes-traffic">http://www.smh.com.au/nsw/truck-crash-near-sydney-airport-causes-traffic</a>	Fuel tanker crash near Sydney Airport causes traffic jams on ...	Fuel tanker crash near Sydney Airport causes t
4	18/08/2016												<a href="http://www.abc.net.au/news/2016-08-19/sydney-airport-tanker-fuel-spill-cl">http://www.abc.net.au/news/2016-08-19/sydney-airport-tanker-fuel-spill-cl</a>	Fuel tanker overturns near Sydney Airport causing traffic delays at ...	The truck failed to negotiate a corner on Wen
4	18/08/2016												<a href="http://www.news.com.au/national/nsw-act/news/road-accident-diverted-tri">http://www.news.com.au/national/nsw-act/news/road-accident-diverted-tri</a>	Road accident, diverted trains cause peak-hour pain at Sydney Airport	The stricken tanker tipped over on Wentworth
4	18/08/2016												<a href="http://www.dailytelegraph.com.au/news/nsw/petrol-tanker-rolls-on-souther">http://www.dailytelegraph.com.au/news/nsw/petrol-tanker-rolls-on-souther</a>	Petrol tanker rolls on Southern Cross Drive, trucks collide in fatal ...	Fire and Rescue NSW crews will remove the t
4	18/08/2016												<a href="http://www.news.com.au/national/breaking-news/fuel-tanker-overturms-ne">http://www.news.com.au/national/breaking-news/fuel-tanker-overturms-ne</a>	Flipped tanker removed near Sydney Airport - News.com.au	Fire and Rescue NSW crews will remove the t
4	18/08/2016												<a href="http://www.abc.net.au/news/2016-08-19/sydney-airport-tanker-fuel-spill-cl">http://www.abc.net.au/news/2016-08-19/sydney-airport-tanker-fuel-spill-cl</a>	Fuel tanker overturns near Sydney Airport causing traffic delays at ...	The truck failed to negotiate a corner on Wen
4	19/08/2016	Wentworth Ave	Mascot	Nsw	Single	Yes	Yes	0	No	Tanker rollover	Semi-trailer	Motor spirit (petrol)	<a href="http://www.abc.net.au/news/2016-08-20/road-reopens-after-fuel-tanker-sp">http://www.abc.net.au/news/2016-08-20/road-reopens-after-fuel-tanker-sp</a>	Sydney's Wentworth Avenue reopens after fuel tanker spill	Contractors will continue working to clean up
4	19/08/2016												<a href="http://www.huffingtonpost.com.au/2016/08/19/massive-fuel-clean-up-unde">http://www.huffingtonpost.com.au/2016/08/19/massive-fuel-clean-up-unde</a>	Massive Fuel Clean-Up Underway In Sydney After Truck Crash	Police are urging motorists to be aware of tra
4	19/08/2016												<a href="http://www.smh.com.au/nsw/truck-crash-near-sydney-airport-causes-traffic">http://www.smh.com.au/nsw/truck-crash-near-sydney-airport-causes-traffic</a>	Fuel tanker crash near Sydney Airport causes traffic jams on Southern ...	The tanker carrying 34,000 litres of diesel and
4	19/08/2016												<a href="http://www.news.com.au/national/nsw-act/news/road-accident-diverted-tri">http://www.news.com.au/national/nsw-act/news/road-accident-diverted-tri</a>	Sydney Airport: Overturned tanker causes traffic chaos on airport roads	Road accident, diverted trains cause peak-hou
4	19/08/2016												<a href="http://www.abc.net.au/news/2016-08-20/road-reopens-after-fuel-tanker-sp">http://www.abc.net.au/news/2016-08-20/road-reopens-after-fuel-tanker-sp</a>	Sydney's Wentworth Avenue reopens after fuel tanker spill - ABC ...	Contractors work around the clock to clean up
4	19/08/2016												<a href="http://www.triplem.com.au/sydney/news/blog/2016/8/sydney-tanker-emerg">http://www.triplem.com.au/sydney/news/blog/2016/8/sydney-tanker-emerg</a>	Sydney Tanker Emergency - Triple M	The tanker flipped on Wentworth Avenue near
4	19/08/2016												<a href="http://www.police.nsw.gov.au/news/latest_releases?sq_content_src=%28d">http://www.police.nsw.gov.au/news/latest_releases?sq_content_src=%28d</a>	Inquiries continue after tanker crash at Mascot - NSW Police Force	Inquiries are continuing after a fuel tanker ove
4	19/08/2016												<a href="http://www.skynews.com.au/news/local/sydney/nsw/2016/08/19/fuel-tank">http://www.skynews.com.au/news/local/sydney/nsw/2016/08/19/fuel-tank</a>	Fuel tanker flips near Sydney airport - Sky News	A petrol tanker carrying 30000 litres of fuel ha
4	19/08/2016												<a href="http://acapmag.com.au/home/2016/08/delays-tanker-flips-near-sydney-airp">http://acapmag.com.au/home/2016/08/delays-tanker-flips-near-sydney-airp</a>	Delays as tanker flips near Sydney airport - ACAPMAG - The voice of ...	The petrol tanker flipped on a major road at M
4	19/08/2016												<a href="http://www.w3livenews.com/2016/08/19/sydney-airport-fuel-tanker-spill-cl">http://www.w3livenews.com/2016/08/19/sydney-airport-fuel-tanker-spill-cl</a>	Sydney Airport fuel tanker spill closes Eastlakes roads during morning ...	A large fuel spill from an overturned fuel tank
5	19/08/2016	Wollar Road	Wilpinjong	Nsw	Single	Yes	Yes	0	No	Tanker rollover	Semi-trailer	Motor spirit (petrol)	<a href="http://www.mudgeeguardian.com.au/story/4107262/fuel-tanker-rollover-on">http://www.mudgeeguardian.com.au/story/4107262/fuel-tanker-rollover-on</a>	Fuel tanker rollover on Wollar Road   Mudgee Guardian	Various units from the NSW Rural Fire Service
6	28/08/2016												<a href="http://www.themercury.com.au/news/tasmania/truck-rollover-closes-bass-h">http://www.themercury.com.au/news/tasmania/truck-rollover-closes-bass-h</a>	Highway reopens after gas tanker rollover	A TRUCK driver has been taken to hospital aft
6	28/08/2016												<a href="http://www.themercury.com.au/news/tasmania/truck-rollover-closes-bass-h">http://www.themercury.com.au/news/tasmania/truck-rollover-closes-bass-h</a>	Truck rollover closes Bass Highway near Burnie in state's North-West ...	A TRUCK driver has been taken to hospital aft
6	29/08/2016	Bass Highway	Chasm Cree	Tas	Single	Yes	No	0	Yes	Tanker rollover	Rigid tanker	Hydrocarbon gas (LPG	<a href="http://www.theadvocate.com.au/story/4125791/truck-rollover-round-hill/">http://www.theadvocate.com.au/story/4125791/truck-rollover-round-hill/</a>	Truck rollover Round Hill   The Advocate	Rollover: The scene of the truck rollover at Ro
6	29/08/2016												<a href="http://www.police.tas.gov.au/news-events/media-releases/chasm-creek-cra">http://www.police.tas.gov.au/news-events/media-releases/chasm-creek-cra</a>	Tasmania Police   Chasm Creek Crash, Ai Truck Rollover	A single vehicle truck rollover occurred on the
7	2/09/2016												<a href="http://www.standard.net.au/story/4139940/crash-passenger-youth-remande">http://www.standard.net.au/story/4139940/crash-passenger-youth-remande</a>	Police arrest, charge and remand in custody 15-year-old youth after ...	... collision with a B-double petrol tanker five
7	2/09/2016												<a href="http://www.standard.net.au/story/4139153/camperdown-crash-wanted-ma">http://www.standard.net.au/story/4139153/camperdown-crash-wanted-ma</a>	Camperdown crash: Wanted man involved   The Standard	Emergency services work at the scene of a ac
7	4/09/2016	Princes Highway	Camperdov	Vic	Multi	No	No	0	No	Collision involving c	B-double	Motor spirit (petrol)	<a href="http://www.theage.com.au/victoria/armed-robbery-suspect-caught-after-cr">http://www.theage.com.au/victoria/armed-robbery-suspect-caught-after-cr</a>	Armed robbery suspect caught after crash with petrol tanker	A man on the run following an alleged armed
7	4/09/2016												<a href="http://www.powerfmsa.com.au/news/current-events/60137-vic-petrol-tank">http://www.powerfmsa.com.au/news/current-events/60137-vic-petrol-tank</a>	Vic petrol tanker crash leads to arrest - Power FM SA	The 20-year-old remains under police guard ir



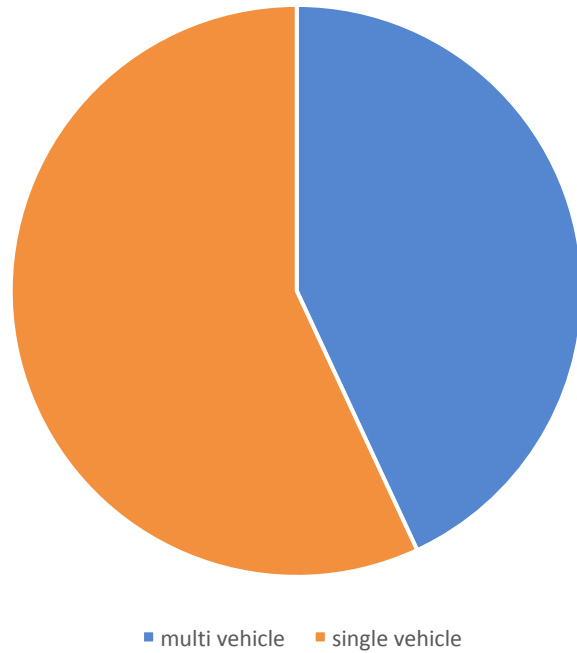
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# Location data

[https://www.google.com/maps/d/viewer?  
mid=1r7VA7q9zEYbialVPgA9abd0r2iyLsQjZ&ll=-30.96130444149264%2C13  
4.34033939999995&z=4](https://www.google.com/maps/d/viewer?mid=1r7VA7q9zEYbialVPgA9abd0r2iyLsQjZ&ll=-30.96130444149264%2C134.34033939999995&z=4)

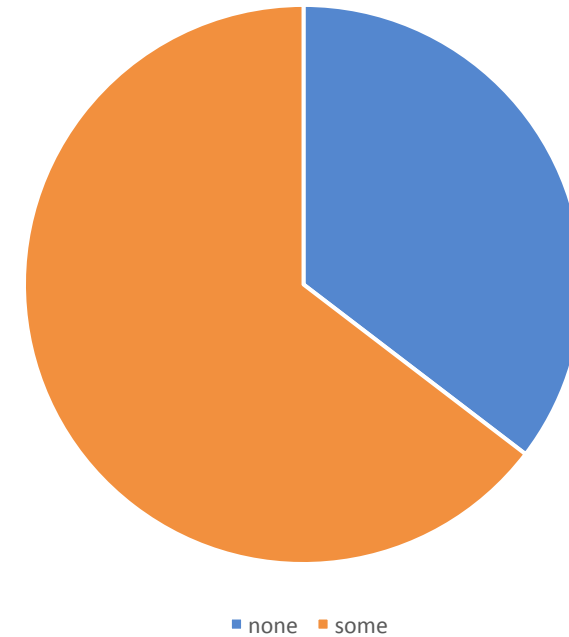
# Context – the size of the prize

DG tanker incidents - single vs multi vehicle incidents, 2016 - 2018



65 incidents in the last 3 calendar years  
20 to 25 per annum  
Around 55% are single vehicle incidents

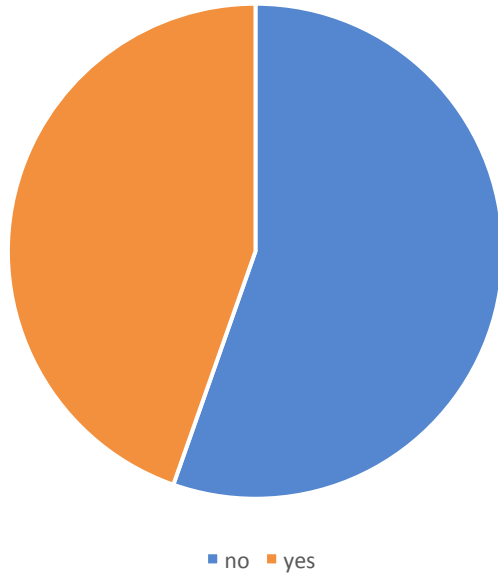
DG tanker incidents - loss of containment 2016 - 2018



64% involved a loss of containment

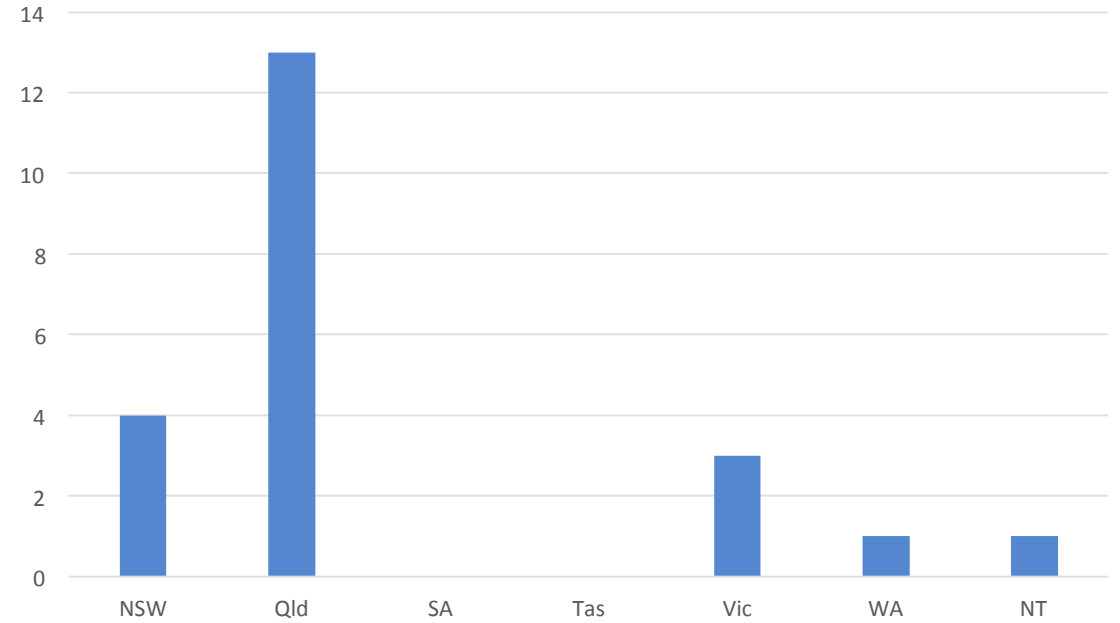
# Context – the size of the prize

DG tanker incidents - roll over frequency  
2016 - 2018



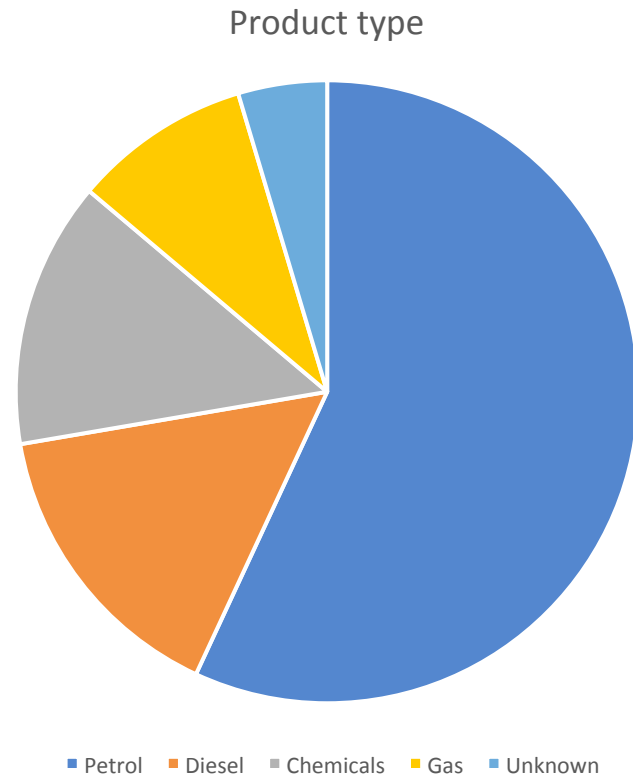
44% rolled over

DG tanker incident fatalities 2016 - 2018



22 people died

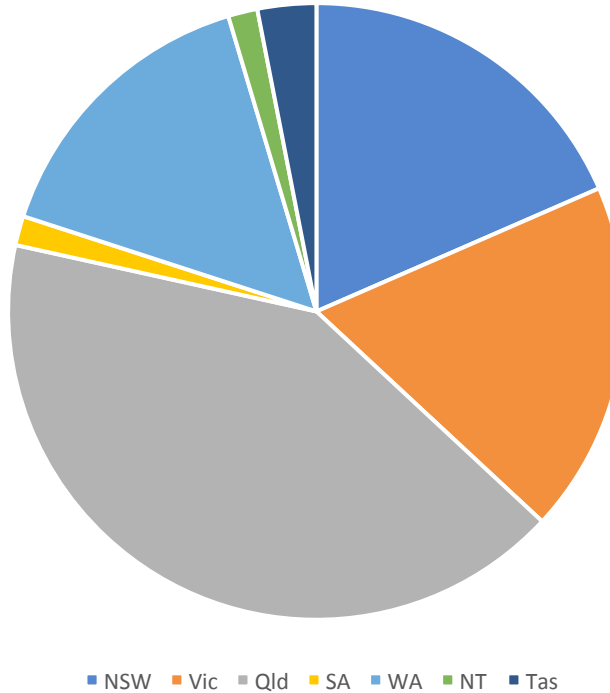
# Context – the size of the prize



57% petroleum  
Around 75% is petroleum and diesel

# Context – the size of the prize

Incidents by State - 2016 to 2018



Victoria and NSW account for close to 20% each of total incidents

Queensland is over 40% of the total incidents for Australia for the 3 years to end 2018



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# Filtering options

<https://www.google.com/maps/d/viewer?mid=1KnESOkX1kNoU1hBA09-GXzZ6eGKFlfO0&ll=-30.96130444149264%2C134.34033939999995&z=4>





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# Fatalities – 2016 to 2018

[https://www.google.com/maps/d/viewer?  
mid=1zyTtJ\\_DiDBRP4TxpJNIFmJmgHkFrUImN&ll=-30.961304693178622%2  
C134.34033950000003&z=4](https://www.google.com/maps/d/viewer?mid=1zyTtJ_DiDBRP4TxpJNIFmJmgHkFrUImN&ll=-30.961304693178622%2C134.34033950000003&z=4)

## DG Truck Fires

Of the 65 incidents, 9 caught fire:

- 6 due to the incident
- 3 due to the truck itself causing the fire

Around 14% of DG tanker incidents result in fires

Of those only around 1/3<sup>rd</sup> are the result of an ignition source in the truck



National Bulk Tanker Association



**This is a hands-on day** for tanker people to demonstrate opportunities to further improve safety and productivity in our industry. Supported by our partners below and the Australasian Fire and Emergency Service Authorities Council (AFAC), it is our annual opportunity for tanker manufacturers, operators, regulators, enforcement and other industry personnel to exchange views in a practical setting.

With speakers from key agencies supported by industry experts, this event will feature a half day of training on the afternoon of the 4th and a full day of presentations and practical demonstrations on the 5th September.



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<https://www.nbta.com.au/bulktankerday>

## Bulk Tanker Day

4th and 5th September 2019  
Brisbane Show Grounds

### Training Program

Afternoon session, 4th September

1.30pm	<b>A52809 tanker standard – what has changed?</b> Major changes in the new code and what that means for new equipment	Lee Stringer, Manager, SLP
2.30pm	<b>Tanker maintenance inspections</b> Tanker check lists and critical maintenance	Sean Alcock, Mechanical Services Manager, FBT Transwest Dave Ingham, STO, EPA NSW
3.30pm	<b>Afternoon tea</b>	
4pm	<b>Transport Emergency Response Plans (TERPS)</b> How to construct a TERP and put it into action	Shane Falkiner, National Transport Compliance Manager, Toll Fuels and Energy Matt Arkell, PTO, EPA NSW
5pm	<b>Close</b>	

### Bulk Tanker Day

5th September

8am	<b>Introduction</b> Welcome, housekeeping	Justin Keast, Chairman, NBTA
8.10am	<b>Market Outlook and Trends</b> Demand for bulk fuels, chemicals and gas Trends in equipment numbers and types The impact of PBS	Phil Potterton, Director, Economic Connections Tammy Wigg, Product Manager, NHVR Les Bruzsa, Chief Engineer, NHVR
9.15am	<b>Performance based safety</b> Incident data and causality Truck fires Maintenance  Technology trends and performance	Adam Gibson, Risk Engineer, NTI Rob Perkins, Executive Director, NBTA Jas Babalija, Hartwood Sean Alcock, Mechanical Services Manager FBT Transwest Brad May, Director Sales, PACCAR
10.15am	<b>Morning tea and exhibition tour</b>	Introduction to exhibitors
11.15am	<b>Response Preparedness and Performance</b> Training Sharing resources - PIEMC Response preparedness Response co-ordination	Shane Falkiner, Toll Liquids Rod Rutledge, National Safety Advisor, Caltex Anthony Pospisil, Risk Manager, ISS First Response Dave Ingham, STO, EPA NSW
12.30pm	<b>Lunch in exhibition</b>	
1.30pm	<b>Emergency Response Demonstration</b> TERPs in action	Queensland Fire and Emergency Services CROIERG, ISS First Response
2.30pm	<b>Productivity</b> Protecting access  National outcomes Standards and Codes	Grant Johnson, Government Relations, Transport for NSW, Gavin Hill, GM Strategy, TCA Debra Kirk, NTC Darrel Ramm, Gas Energy Australia Lee Stringer, Manager, SLP
3.30pm	<b>The road ahead</b>	Justin Keast, Chairman, NBTA
3.40pm	<b>Afternoon tea</b>	
4pm	<b>Close</b>	



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# Questions