



# Dangerous Goods Incident Logs 2002



## Dangerous Goods Storage Incident Log 2002

Incident Number	Date	Location	Dangerous Goods Involved	Incident Details
W02/02	12/01/02	Christmas Island	Diesel Fuel	Approximately 14,000 L of fuel spilt from power station fuel supply tanks as a result of control system and alarm/shutdown failure. The shutdown facility was upgraded to prevent a recurrence should the overflow alarm/shutdown facility fail in the future.
W06/02	13/01/02	Geraldton	Sodium Hypochlorite, Calcium Hypochlorite, and Hydrochloric acid	Swimming pool chemicals were involved in a fire releasing fumes and contaminating several thousand litres of firewater runoff. Northwest Coastal Hwy was closed for several hours.  Fire was caused by an electrical fault.
W03/02	19/01/02	Perth City	Diesel Fuel	600 L of fuel leaked from a marine dispenser into a river as a result of a valve being left open and a dispenser not automatically switching off. 500 L of the spilt fuel was recovered. The company is replacing the manual valves to prevent the possibility of human error.
W08/02	16/02/02	Dampier Port	Diesel	A storage tank overflowed into bund during fuel transfer operation. The operator was attending to a problem and was not watching the transfer.  On return, he noticed the overfill and shut down the fuel transfer operation. The operator has made aware of the obligation to be present during transfer operations.
W5/02	10/03/02	Kiara	LP Gas	A short duration flash fire occurred at a service station when a staff member used a fluid lighter to check an underground tank gauge. The company has reviewed the incident and implemented the following changes to the site: <ul style="list-style-type: none"> <li><input type="checkbox"/> Flameproof torch is available</li> <li><input type="checkbox"/> Computerised reading of the fuel gauge</li> <li><input type="checkbox"/> Installed lights near the LPG turret</li> <li><input type="checkbox"/> Conducts auditing of site operator's performance.</li> </ul>



## Dangerous Goods Storage Incident Log 2002

Incident Number	Date	Location	Dangerous Goods Involved	Incident Details
W12/02	25/04/02	Bentley	Flammable Liquids 1400 L	<p>Arson caused the complete destruction of a dangerous goods storage facility was completely destroyed by fire. Arson was suspected.</p> <p>The fire was restricted to this building and did not affect other buildings on-site and reinforces the need for the appropriate separation distances.</p>
W07/02	15/05/02	Kenwick	Ammonia, anhydrous	<p>There was a small ammonia leak from a hose connecting an ammonia cylinder and a fridge that was being recharged with coolant in a factory unit.</p> <p>The company has installed a compatible metal connecting pipe to prevent a recurrence.</p>
W10/02	8/06/02	Belmont	LP Gas	<p>A service station customer was sprayed with LP Gas when the dispensing hose he was using ruptured.</p> <p>A company investigation has resulted in all hoses of same type being replaced.</p>
W09/02	10/06/02	South Lakes	LP Gas	<p>A short duration flash fire occurred at a service station when an employee checked the contents gauge of an underground tank.</p> <p>The employee claimed to have dropped the aluminium inspection cover prior to the fire. The company has installed permanent lighting and procedures to prevent a recurrence.</p>
W11/02	22/06/02	North Fremantle	Flammable Liquids	<p>A leak of 150 L of fuel additive occurred when a pump seal failed. All spilt product was retained on-site. The company has implemented an annual seal replacement program with regular visual inspections.</p>
W14/02	12/07/02	Augusta	LP Gas	<p>600 L of LP Gas escaped overnight from a 7500 L tank when a valve failed. Emergency services controlled the leak in the morning when the leakage was discovered. Repairs were effected later that day. The leak was caused from a faulty valve which was replaced.</p>
W13/02	09/08/02	Kenwick	Acetone Polyester Resin/ Catalyst (MEKP)	<p>A fire occurred at a pool manufacturing plant while an employee was spraying a fibreglass swimming pool with resin. The fire appeared to have originated from the "chopper gun".</p>



Incident Number	Date	Location	Dangerous Goods Involved	Incident Details
W16/02	12/08/02	West Perth	Anhydrous ammonia	A small leak of ammonia occurred while the ammonia refrigeration system was being topped up. Ammonia was also detected at nearby drains, however the source was not determined. The company has been instructed to fit leak detection equipment and a circular has been prepared for the industry on the requirements for the storage of anhydrous ammonia.
	03/09/02	Kwinana	Ammonia	<p>During routine weekly pipeline inspections by process technicians, a slight ammonia smell was detected emanating from a pit.</p> <p>Radiography of a section of an underground ammonia pipeline indicated corrosion along the base of the pipe. A temporary fibreglass wrap was placed on the corroded section of pipeline as a temporary control measure until a new section of pipe could be installed.</p>
W17/02	04/10/02	Canning Vale	Anhydrous ammonia	<p>Approximately 500 L of ammonia gas vented from a pressure relief valve on the liquid pump, due to the valve of the by-pass line being inadvertently closed. The gas detectors operated correctly and FESA attended. The road was closed for several hours.</p> <p>The company has now taken a number of remedial actions to prevent a similar situation from recurring and have applied the same procedures to their other plants where they have refrigeration systems.</p>
W18/02	23/10/02	Dianella	LP Gas	<p>A 450 L cylinder landed on a busy road after it was hit by a car at a service station. The driver of the vehicle had mistakenly pressed on the accelerator pedal instead of the brake pedal whilst on the forecourt.</p> <p>No LP Gas leaked from the impacted cylinder. Bollards around the cylinder were present but were unable to protect the cylinder due to the speed of impact.</p>
W19/02	24/12/02	Welshpool	Sulfuric Acid	About 3000 L of acid spilled into and over a bund. The cause of the leak was a failure to check if the drain valve was closed during the transfer operation from the delivery truck.



Department of  
**Industry and Resources**

## Dangerous Goods Safety

100 Plain St East Perth WA 6004

Phone: (08) 9222 3413 Fax: (08) 9222 3525

www.doir.wa.gov.au

email – edg@doir.wa.gov.au

# Dangerous Goods Transport Incident Log 2002

Incident Number	Date	Location	Dangerous Goods Involved	Incident Details
W01/02	15/01/02	Leonora	Diesel	Third trailer of a triple roadtrain rolled over spilling approximately 20,000 L of product.
W02/02	18/01/02	Balingup	Petroleum Fuel	<p>Fire destroyed a tanker carrying 35,000 L of fuel. It also started a fire on an adjoining pine plantation. The fire started in the engine compartment of the prime mover unit.</p> <p>The driver took prompt action to prevent vehicle access to the area, and made arrangements for emergency services to attend.</p>
W06/02	22/01/02	Roundabout in Ballajura	Hydrochloric Acid	Insufficient load restraint led to 2 x 20 L drums falling off a trailer whilst negotiating a roundabout, spilling approximately 15L. The company has retrained staff in correct procedures.
W05/02	24/01/02	45km North of Kalgoorlie	Hydrochloric Acid	Insufficient load restraint led to a 200 L drum falling off a trailer spilling approximately 20 L. The company has amended its load restraint practices to prevent a recurrence.
W04/02	28/01/02	Boulder Roundabout Kalgoorlie/ Boulder	Concentrated Sulfuric Acid	The rear trailer of a triple roadtrain rolled over when negotiating a roundabout spilling approximately 1800 L. The company has instigated a route card system to identify appropriate speeds depending on road conditions and vehicle combinations.



## Dangerous Goods Transport Incident Log 2002

Incident Number	Date	Location	Dangerous Goods Involved	Incident Details
W03/02	9/02/02	East of Southern Cross and west of Coolgardie	Ammonium Nitrate, Liquid	<p>Enroute from Kalgoorlie to Perth, the driver discharged residual dangerous goods from the tanker onto the ground at two public places.</p> <p>The company took remedial action and the driver's employment was terminated for not following documented procedures. Further induction training is being provided to ensure drivers are aware of proper procedures.</p>
W07/02	9/04/02	Marmont St Meekatharra	Methyl IsoButyl Carbinol	A 1000 L IBC was found to be leaking through a crack in the plastic inner liner spilling approximately 5 L. Investigations revealed that although the IBCs are UN approved they do not appear suitable for the journey. The company has since sourced IBCs more suitable for this chemical.
W08/02	17/04/02	Brookton H'way, 12km east of Brookton	Calcium Hypochlorite	A B-double vehicle rolled (driver fell asleep) causing approximately 1 kg of product to leak from a 10 kg drum. All product was recovered.
W09/02	1/05/02	Brand H'way 21km South of Cataby	Calcium Hypochlorite. Various herbicides and pesticides	A roadtrain rolled over and was destroyed in a fire after a collision with a car. Report alleged that the car crossed over onto the oncoming truck.
W10/02	19/05/02	Great Eastern Highway, Southern Cross	Ethanol solution	The rear trailer of a roadtrain caught fire and packages of ethanol burned. The prime mover and front trailers were uncoupled and moved away from the burning trailer, which prevented a more serious fire.
W14/02	7/05/02	Fremantle Port	Liquid Sodium Cyanide	During unloading of a ship some isotainers were found to be damaged. All damaged containers were repaired and retested and visual inspection was instigated for future imports. The containers were found to be oversized which has led to the damage during handling.
W11/02	22/05/02	Eyre Highway, Balladonia	Ammonia solution	A B-double vehicle rolled over on its side damaging an IBC spilling 800 L of the solution. The incident occurred in a remote area. Driver inattention is alleged to be the cause of the rollover.



## Dangerous Goods Transport Incident Log 2002

Incident Number	Date	Location	Dangerous Goods Involved	Incident Details
W13/02	10/06/02	Upper Swan	Cyanide Solution, N.O.S.	<p>Approximately 250 mL of sodium cyanide solution leaked from a failed gasket on an isotainer.</p> <p>All spilt product was treated and the gasket safely replaced prior to the vehicle being driven back to base. The company involved has amended its procedure for replacement of gaskets.</p>
W12/02	13/06/02	Cnr William St & Francis St Northbridge	Oxygen Carbon Dioxide LP Gas	<p>Insufficient secondary load restraint resulted in a pallet of cylinders falling from a metro delivery truck onto a parked car whilst the truck was turning the corner. The delivery trucks have been upgraded with additional restraint and the drivers have been instructed in new procedures.</p>
W15/02	19/07/02	Queens Rd, Mt Pleasant	Petrol	<p>Petrol spilled at a service station during the transfer from a road tanker to an underground tank. The manner of filling was a hand-operated nozzle. A circular was sent to fuel distributors highlighting concerns about the practice, as it was in breach of the transport legislation.</p>
W16/02	09/08/02	Fremantle Port	Mono Methylamine Nitrate (MMAN)	<p>During shipment, inclement weather caused 2 large steel crusher jaws to break free and pierce the side of a freight container, puncturing a 200 L drum. The container was quarantined and treated.</p>
W17/02	23/11/02	45 km N of Norseman	Flammable liquids	<p>The rear trailer of a B-double vehicle caught fire and packages of flammable liquid burned (900 L). Since the fire was too intense to extinguish, the driver uncoupled the prime mover, moved it away and left the trailer to burn.</p> <p>Although the cause of the fire could not be determined, it was most probably due to a locked brake lining.</p>
W18/02	9/12/02	North West Coastal Hwy, 65km N of Nanutarra Roadhouse	Ammonium Nitrate	<p>The rear trailer of a double-road train tipper slid onto its side when the driver tried correcting the vehicle after the rear trailer hit the gravel on the shoulder of the road. Approximately 10 t of ammonium nitrate spilled causing the highway to be closed for 10 hours.</p>



<b>Incident Number</b>	<b>Date</b>	<b>Location</b>	<b>Dangerous Goods Involved</b>	<b>Incident Details</b>
W19/02	26/12/02	5km N of Kambalda turnoff on the Coolgardie Esperance Highway	Sodium Cyanide Sparge Tanks	Two double-road trains were enroute from Adelaide to Kalgoorlie when the rear truck collided with the lead truck which was pulling over to investigate a faulty tail light .  Impact caused a fire that destroyed the prime mover of the rear road train and also damaged one of the trailers. No loss of product.
W21/02	13/12/02	Roadhouse, South West H'way, North Dandalup	Petrol	Whilst transferring petrol to an underground tank that was undergoing maintenance, approximately 750 L of fuel was lost through loose pipe fittings.
W20/02	29/12/02	Malcolm Siding Transfer facility, Leonora	Anhydrous ammonia	Prior to unloading ammonia from a rail tanker, a small leak of ammonia vapour was detected near the tanker's safety valve.



## Major Hazard Facilities Incident Log 2002

Incident Number	Date	Location	Dangerous Goods Involved	Incident Details
W1/02	02/02/02	Kwinana	Chlorine Gas	An incorrect valve set point rerouted chlorine gas to a scrubbing system. The scrubber was depleted, subsequently venting 1.4 t of chlorine gas to atmosphere. Three employees of an adjacent facility were affected by the release and required medical treatment.
W4/02	22/03/02	Kwinana	Ammonium Nitrate, Liquid	A flange gasket failure on a liquid ammonium nitrate pipeline, inside a manufacturing plant, resulted in 3 tonnes of product being spilt. The spilt was contained in a bund and recovered without further incident.
S13838	21/04/02	Subiaco	Chlorine Gas	Piping connected to a chlorine drum had not been adequately tightened and led to a small leak of chlorine gas, during a valve test of the drum. The valve was closed, stopping the release. Operators sustained some irritation from the gas, but did not require medical treatment.
S11155	13/06/02	Kwinana	Natural Gas (methane)	A release of approximately 1 t of natural gas occurred from absorber relief valves during start-up of a plant. The release occurred as a result of operator error when a valve was opened instead of being closed and was safely vented to atmosphere.
S11838	15/08/02	Kwinana	Chlorine	A release of chlorine occurred at a plant when a valve on the base of a chlorinator broke off. Metallurgical analysis determined that failure was due to stress corrosion cracking of valve bolts. The chlorinator was taken out of service until all valves had been replaced. The operator has committed to using only new bolts for future valve replacement.



Incident and File Number	Date	Location	Dangerous Goods Involved	Incident Details
S15552	19/08/02	Kwinana	Caustic Soda	A release of a dilute caustic soda solution occurred during maintenance work at a chemical plant during an annual shut down. Investigation found that the 'permit to work' system had failed allowing a tank, which should have been drained, to spill caustic solution when the plant's instrument-air was turned off. There were no injuries.
S7712	02/09/02	Beldon	Chlorine	An operator at a wastewater treatment plant failed to tighten a fitting on a liquid outlet valve of a chlorine drum, leading to a release of liquid chlorine. The operator suffered only minor injuries when the face-seal on his respirator was lost when knocked as he tried to exit the chlorine storage building.
S15552	14/09/02	Kwinana	Hypochlorite Solution	Abnormal plant operating conditions resulted in an overflow of 45 t of hypochlorite solution from a storage tank into the tank bund. Subsequent mixing of acid and hypochlorite solution in an adjacent drain led to a minor chlorine release. A contractor was exposed to the release but did not require medical treatment.
S12715	16/09/02	Kwinana	Sodium Cyanide Solution	An operator was sprayed with sodium cyanide solution whilst cleaning the plant. The operator immediately washed off the product and suffered no ill effects. A small amount of solution spilt outside the plant building and was contained in a temporary bund with no environmental impact.
S15551	16/10/02	Kwinana	Ammonia Vapour	Elevated pressure in an ammonia storage tank caused release of ~21m <sup>3</sup> of ammonia vapour to atmosphere from the tank relief valve. There were no injuries, however there was an ammonia odour at adjacent plants.
S15548	23/10/02	Kwinana	Ammonia Vapour	On re-starting a plant following a shutdown, a pressure control valve in the gaseous ammonia system allowed ~1.5 t of ammonia vapour to pass to a high atmospheric vent and then to atmosphere, due to incorrect process logic. There were no injuries.



<b>Incident and File Number</b>	<b>Date</b>	<b>Location</b>	<b>Dangerous Goods Involved</b>	<b>Incident Details</b>
W20/02	11/12/02	Kemerton	Titanium tetrachloride	Residual titanium tetrachloride was spilt during nitrogen purging of piping that was being prepared for maintenance. A sample point on the pipework detaching during purging leading to the release. The site emergency response plan was activated and there were no injuries, or offsite impacts.