ACCIDENT REPORTS - 1985

EXPLOSIVES

FLAMMABLE LIQUIDS

DANGEROUS GOODS (STORAGE)

DANGEROUS GOODS (ROAD TRANSPORT)

During 1985, 42 accidents in the above categories were brought to the Division's attention. These comprised 4 accidents related to explosives, 6 to flammable liquids, 12 concerning the storage and handling of dangerous goods and 22 related to their transport by road.

The Division's statutory involvement with dangerous goods storage accidents is limited to those involving explosives and flammable liquids due to the current absence of regulations governing the storage of other classes of dangerous goods. Other accidents of this nature are documented where they have been drawn to the attention of the Division, and staff have attended and advised on emergency procedures. The Government is currently actively reviewing the matter of Dangerous Goods Storage Regulations and has set up a community based Committee to report on problems in this area.

More than half the accidents reported and investigated during 1985 were within the ambit of the Dangerous Goods (Road Transport) Regulations. These are a major demand on the time of the Divisional staff.

The Division participated with Industry and other Authorities including the Emergency Services in a training exercise during the year to develop the procedures for dealing with emergencies. The exercise was co-ordinated by the State Emergency Service and showed up several flaws in the procedures being followed by some organisations. For a variety of reasons, among them the failure of some participants to submit reports on the exercise, the incorporation of the SES into the Police Department, the dissolution of the Western Australian Transport of Dangerous Goods Advisory

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Committee and the subsequent formation of the Western Australian Counter Disaster Advisory Committee, no conclusions or recommendations have been drawn from the training exercise and no coherent follow-up action has been implemented. This could best be described as a disappointing conclusion.

On a more positive note, following the rejection of some proposed legislation by the Legislative Council, the Hon. Minister spent some time reviewing the regulations with the Western Australian Road Transport Association. This resulted in an analysis of accident reports by the Industry and subsequently steps were taken to prescribe requirements which are aimed at improving the safe transport of packaged dangerous goods.

The Division actively publicised the proposed legislation before it was promulgated and it is believed that this has been a significant contributing factor towards the decline in accidents which occurred in the latter half of the year.

H Douglas
DIRECTOR, EXPLOSIVES DIVISION

19 March 1986

EXPLOSIVES ACCIDENTS

Introduction.

The Division was made aware of four accidents involving explosives in 1985. Only one could accurately be described as an accident in that reasonable precautions had been taken to avoid mishap and the result could not be predicted.

Of the others, one was the result of wilful mischief and the other two could have been avoided with the application of common sense and the adherence to established sound working practices.

13 March	Overcharging with explosives whilst attempting to break up a concrete slab located within a prefabricated aluminium shed resulted in the destruction of the shed. The resultant flying debris subsequently damaged windows and asbestos panels on two adjoining holiday homes located in the Busselton area.
22 August	A 12 year old boy lost all the fingers and thumb of his right hand when a detonator he was playing with exploded at his Boulder home.
30 November	Damage was sustained to the roof of a house in Hillarys when an object crashed through tiles and continued to burn on the roof. The object was identified as a parachute distress flare and the extent of the damage was attributed to the failure of the parachute to open. It appears that the flare had been fired as a prank.
3 December	An Albany man sustained severe lacerations and shock when an unexploded portion of a charge exploded as he was drilling into an old drill hole.

FLAMMABLE LIQUIDS ACCIDENTS

Introduction.

Though all accidents involving flammable liquids were noteworthy, several warrant special comment because they resulted in further action by the Division because of possible industry wide implications.

The rupture of a fuel tank because of the failure of a pressure relief valve resulted in a review of operating procedures by the supplying oil company. The problem was identified as being peculiar to that installation and it was not considered necessary to review all other tanks in the State.

A fire involving a kerosene powered hot water heater prompted a detailed investigation by an Explosives Inspector even though the matter was beyond the legal responsibilities of the Division. This action was taken because of the degree of expertise within the Division and the absence of any statutory authority elsewhere. A comprehensive report was presented to the Coronial Enquiry and the content of the report was a contributing factor towards requiring action to be taken to rectify all similar heaters in Western Australia.

Finally, it is disturbing to note that, despite extensive publicity over many years, people persist in using inflammatory equipment to cut metal containers which have held flammable products. The use of such cutting torches regularly results in fires, explosions and injuries and there seems to be no practical solution to this problem.

31 January	An onground diesel tank of 55kl located at a Kewdale service station split whilst being filled. All of the spilt fuel was contained by the bund. It was subsequently found that the relief vent was not to specification and a pressure build-up caused the tank to rupture.
26 March	Fire damaged the polishing booth of a Malaga furniture factory after industrial cleaning equipment ignited polish stored in the vicinity. The fire was extinguished by the fire brigade and damage was confined to the booth.

Flammable Liquids

9 May — A woman received severe burns at an East Perth health club when eucalyptus oil was poured onto hot rocks in the sauna. The oil, usually diluted before application to the rocks was in this instance applied in the pure state and subsequently vaporized and ignited.

16 May — A Quairading house was extensively damaged when a blaze originating from the kerosene fired hot water system spread into the roof and adjoining rooms. Inspection of the burner unit revealed that it had been incorrectly assembled resulting in overheating of the unit and subsequent ignition of the fuel.

20 May — A worker was badly burnt at an Osborne Park factory while trying to cut through an empty drum with a welding torch. The drum had previously contained a high flashpoint mineral oil and exploded during the cutting process.

24 May — An earth scraper caught alight while being refuelled at an Eneabba minesite after diesel fuel overflowed from the tank and onto the turbo-charger. The vehicle fire was extinguished but an attempt to smother the subsequent pump fire with sand resulted in one of two adjacent 55kl tanks being punctured by a front end loader. The resulting stream of escaping diesel fuelled the blaze which was contained by a sand bank and allowed to burn out. An estimated 80kl of fuel was consumed in the fire.

5 June — A fire started in either a switchboard or a transfer pump during a fuel dispensing operation at Finucane Island. Damage to equipment totalled approximately $20 000.

25 July — A Narrogin woman was badly burnt when her son threw petrol on the lounge room fire in an attempt to get the fire started.

DANGEROUS GOODS (STORAGE AND HANDLING)

Introduction.

Many of the accidents reported in this section are beyond the legal responsibility of the Division to investigate. Inspectors were called out to several because of their expertise which has been developed from working with dangerous goods under legislation in which we do have legal obligations for example, the Flammable Liquids Regulations.

Several other incidents have been drawn to our attention and these are reported only as a matter of interest. One of these is worthy of particular comment: the effect of the sulphuric acid spill (18 October) could have been minimised if basic safety precautions had been taken. For example, if the tank had been bunded and a routine check made of its integrity the spillage may have been avoided and certainly would have been contained.

The absence of regulatory controls over dangerous goods in storage means there is very little pressure on organisations to take even such elementary steps to safeguard their products.

22 February	A man was killed and 10 other people injured when an L.P. gas cylinder exploded in a holiday shack near Jurien. Incorrect use of the cylinder caused a leak of gas which subsequently ignited. Flammable liquids stored in the building also contributed to the resulting blaze.
28 February	A quantity of xylene was discharged into Fremantle Harbour during transfer operations to a storage tank. The solvent was dispersed with hoses and allowed to evaporate. Portions of the slick were treated with detergent to aid its dispersal.
26 March	A drum of agricultural chemical was punctured during handling at a Kewdale freight terminal. The spillage was absorbed and safely disposed of.
28 March	Fire damaged drums of an industrial polish were observed to be leaking into a waste disposal bin located at

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17 November	A youth suffered burns to his face after mixing chemicals at his Claremont home. The mixture exploded during preparation.
21 November	An estimated 40 tonnes of phosphoric acid leaked from a burst pipeline at a Kwinana plant. Some of the acid discharged into Cockburn Sound and the remainder was neutralized with crushed limestone.
8 December	Workers were evacuated from a Kewdale factory when ammonia gas escaped from a high pressure pipeline. The leak was sealed and the gas allowed to dissipate.

DANGEROUS GOODS (TRANSPORT ACCIDENTS)

Introduction.

Dangerous goods road transport accidents are presented in a standard format which has been adopted this year to facilitate liaison between the various emergency response units participating in the Western Australian Transport Emergency Assistance Scheme (W.A.T.E.A.S.).

The most significant accident of the year was the overturn of a petrol tanker in Bayswater. However this incident was not without some benefits. It is believed that the publicity generated by the accident and subsequent action taken by the Hon. Minister and the Division publicised the need for adequate securement of loads and this contributed to a significant reduction in the number of accidents in the latter part of the year.

Two other accidents are worthy of comment. The failure of the pressure vacuum vent on a tank and the subsequent spillage of petrol resulted in an oil industry wide check on pressure/vacuum vents and the establishment of a regular maintenance programme.

The second incident is the transport industry's equivalent to the problem of cutting drums which have contained flammable material. Incident 10/85 is a classic case where an operator disregarded commonsense and recommended safe industry practice and suffered injury as a penalty. The operator was self loading kerosene by splash filling through an open hatch. The resultant disregard of basic safety precautions resulted in a fire which in this instance was quickly extinguished.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 1/85

Summary of the Incident:

Date: 4 January 1985

Location: Transport Depot
Belmont, W.A. 6104

Dangerous Goods Involved:

"Prefect" Insecticide active constituent METHAMIDOPHOS. U.N. No. 3017, Class 6.1, Sub-Risk 3, Packaging Group 1.

Scenario

Spillage of the product "PREFECT" occurred in the Transport Depot when an outer package containing 4 x 5 litre inner packages was roughly handled in the course of unloading.

Emergency Services attended at the scene and the outer package containing the damaged 5 litre plastic packages was isolated and spillage cleaned up by the application of sand. The damaged containers were disposed of at the direction of the Public Health Department.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 2/85

Summary of the Incident:

Date: 16 January 1985

Location: Cnr Albany Highway & Highbury Crescent, Cannington

Dangerous Goods Involved: None

The substance was household bleach (sodium hypochlorite). Available chlorine content did not exceed 1.5%. Dangerous Goods (Road Transport) Regulations require available chlorine content to exceed 5% before goods are classified as dangerous.

Scenario

The vehicle conveying a load of household cleaning products lost part of its load when ropes and angle brackets restraining the cartons failed to contain all of the load.

As the packages were marked "Sodium Hypochlorite" and the hazard was not determined the incident was dealt with as for an emergency situation for this substance. The area was rendered safe by diluting the spillage. Advice as to the available chlorine content was obtained from the manufacturer following the spillage.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 3/85

Summary of the Incident:

Date: 12 February 1985

Location: Kearns Crescent,
Ardross, W.A. 6153

Dangerous Goods Involved:

Aldrin.

U.N. No. 2762, Class 3.1, Sub-risk 6.1, Packaging Group II.

Note:

In this case the aldrin had been diluted to about 0.5% for use as white ant spray and is thus not classified as a dangerous good. (ie, aldrin diulted to less than 2% by water is not a dangerous good).

Scenario

Approximately 150 litres of diluted aldrin white ant spray was spilled from a vehicle while the operator was treating a house. (The total volume of aldrin concentrate lost was approximately 0.75 litres).

The spilled solution ran out from the vehicle onto the driveway of the premises and from there onto the roadside. The driver contained the spillage using sand then washed the remainder of the spilled product into the sand. He then collected the sand containing the solution, loaded it onto the back of his vehicle and removed it to his premises.

The Fire Brigade attended at the site and washed down the last residue of the spillage into the storm water drain which ran off into a nearby drainage sump.

The Police were also in attendance controlling public access to the area.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 4/85

Summary of the Incident:

Date: 22 February 1985

Location: Bunbury

Dangerous Goods Involved:

Distillate Fuel Class 3.2*
U.N. No. 1271 Packaging Group II
*By virtue of Reg. 104(b) Dangerous Goods (Road Transport) Regulations, 1983 which prescribes that dangerous goods of Class 3.3, when carried with goods having a flammability hazard (for example, petrol) shall be treated, for transport purposes, as if they were Class 3.2.

Scenario

The road vehicle combination was a Nissan UD Prime Mover and associated semi-tanker trailer. Following a drop of 1700 litres of Class 3.1 super petrol and during the discharge of 6900 litres of Class 3.3 distillate fuel, the driver left the vehicle to complete invoicing procedures. After presenting the invoice the driver started the vehicle and drove off while it was still coupled to the below ground distillate tank. The pipeline connection broke and approximately 1000 litres of diesel fuel escaped over a 400 metre section of roadway before the driver was aware of the problem and stopped the flow of product.

Fire Brigade officers hosed the fuel into the storm water drains prior to council employees spreading sand on the spill to contain it. The sand was subsequently removed with the absorbed fuel.

No damage was sustained to the vehicle combination. The pipeline connection was irrepairably damaged. Two motor cyclists were reported to have fallen off their machines when they drove over the spill.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 5/85

Summary of the Incident:

Date: Monday, 25 February 1985

Location: Stoneham Street,
Belmont, W.A. 6104

Material: "Hoegrass" Weedicide, Class 6,
U.N. 2903 Amicide Weedicide, Class 6,
U.N. 3000

Scenario

The vehicle was from Northam and was making a regular run collecting goods for that agricultural centre. It was fitted with side gates of light weight construction.

While turning to the right at the southern end of Grandstand Road the load shifted and 16 of the 64, 20 litre pails of Hoegrass on the truck fell from the vehicle. Eight of these pails were damaged to varying degrees which resulted in a release of the product. Due to the high temperature of the day (about 44°C) the spilled solvent and chemical was quickly vaporised.

Neither the driver nor anyone else was affected by the mixed chemical.

As a result of this and some other similar accidents, at least one major consigning company and several transport companies have indicated that they will not be consigning or carrying dangerous goods unless vehicles are equipped with and use substantial and effective side gates.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 6/85

Summary of the Incident:

Date: 19 March 1985

Location: (a) Hampton Road, South Fremantle
Near Clontarf Road

(b) Transport Depot, South Fremantle

Dangerous Goods Involved:

Furfural, U.N. No. 1199, Class 3.2, Sub-risk 6.1 (Pollutant) Packaging Group III

Scenario (a)

Spillage of the product FURFURAL occurred when a 200 litre drum fell from a vehicle combination (rigid frame truck and attached trailer) in Hampton Road, South Fremantle. Only a small amount of liquid escaped (reported as 0.5 litre) and staff treated the spill with assistance from Fremantle City Council workers who provided sand. Emergency services called to the scene arrived after the spillage had been dealt with.

Scenario (b)

Upon examination of the vehicle an undetermined number of drums on the vehicle were found to be leaking.

In view of the undetermined extent of the leakage and doubt as to the soundness of the drums involved, WAFB in consultation with the Police ordered the evacuation of premises immediately downwind. In addition to this, the only forklift equipment available to handle the drums was of a type not approved for use in handling flammable liquids. Difficulty would have been experienced in obtaining such equipment and approval was given by the Acting Senior Inspector of Explosives to utilize the non approved equipment provided a fog of water was generated to protect the WAFB whilst handling the flammable liquids.

Once the vehicle had been unloaded, the leaking drums were isolated and identified. Another vehicle was prepared with a bed of clean sand over which the leaking drums were placed for conveyance to BP Refinery Kwinana.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 7/85

Summary of the Incident:

Date: 29 March 1985

Location: Burswood Road, Victoria Park

Material: Concentrated 32% hydrochloric acid

U.N. 1789, Class 8 in 5 litre packages.

Scenario

The 5 tonne truck involved made a left hand turn from Great Eastern Highway into Burswood Road. The load of 60 packs of four 5 litre plastic packs of hydrochloric acid began to fall from the tray top as the cardboard cartons and plastic wrapping was not sufficient to hold the loading.

Though each plastic pack was approved for dangerous goods, the outer packaging was not compatible with the hydrochloric acid which vented from the plastic inner.

The acid fumes had affected the strength of the cardboard outer packaging to such an extent that it could not restrain the inners. The truck did not use side gates and when the load shifted it was soon dislodged from the vehicle.

Due to the spillage and release of fumes another driver who helped control traffic was affected by the gas and required some hospital attention. The acid was washed away safely with a large excess of water.

With the co-operation of the safety personnel, it is confidently anticipated that more secure transport methods will be used. The chemical company concerned has been advised on the safety requirements of the regulations.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 8/85

Summary of the Incident:

Date: 23 April 1985

Location: South Western Highway, Bridgetown

Dangerous Goods Involved:

D500 Selective Weed Killer
U.N. No. 3000, Class 6.1, Packaging Group III

DB400 Weed Killer
U.N. No. 3000, Class 6.1, Packaging Group III

Hydrogen Cylinders
U.N. No. 1049, Class 2.1, Packaging Group N/A

Argon Cylinders
U.N. No. 1006, Class 2.2, Packaging Group N/A

Oxygen Cylinders
U.N. No. 1072, Class 2.2, Sub-risk 5.1, Packaging Group N/A

Scenario

Approximately 20 litres of D500 selective weed killer was spilled from a 20 litre drum when it was ruptured during a vehicle roll-over. The dangerous goods were transported with other general cargo and foodstuffs in a sealed pantechnicon semi-trailer.

The spilled solution ran out from under the vehicle onto the roadside - degree of risk was minimal.

The Fire Brigade attended at the site and washed down the spillage after receiving advice from the Local Health Surveyor.

The Police were also in attendance controlling public access to the area.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 10/85

Summary of the Incident:

Date: 2 April 1985

Location of Incident: Fuel Depot Boyup Brook

Dangerous Goods Involved:

Kerosene, U.N. No. 1223, Class 3.2, Packaging Group II.

Scenario

The driver of a rigid tanker was splash filling compartment 2 of a 4 compartment tank with kerosene when a spark caused the kerosene in the tank to explode.

The pumping procedure (self loading) involved drawing the kerosene from a ground level tank using the vehicle's pump and transferring it to the tank through the outlet nozzle which was chocked open. An earth lead was connected from the ground level tank to the vehicle tank.

When the kerosene exploded:

1. The driver jumped to the ground from the rear of the tank.

2. The hose was thown from the tank and twisted off (no fuel spilt).

3. The compartment hatch lid slammed close. The fire was suffocated.

The driver was not injured in the incident and the tank was only slightly damaged. It required recalibration.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 9/85

Summary of the Incident:

Date: 23 April 1985, 1615 hours.

Location: Corner Garrett Road and Guildford Road Bayswater

Dangerous Goods Involved:

Motor Spirit - 44 500 litres. U.N. No. 1270, Class 3.1, (Pollutant) Packaging Group II.

Scenario

A six compartment semi-trailer tanker carrying 44 500 litres of motor spirit overturned while negotiating a suburban intersection. Compartments two and six were fractured in the overturn and a large quantity of product leaked. The bottom valve to compartment one also malfunctioned as a result of the overturn and product escaped from here also.

The total quantity of product lost was estimated at 10 800 litres.

The leakage occurred almost directly on top of a storm water drain and product rapidly flowed towards the river. Prompt action by the Swan River Management Authority in setting booms on the open ditch leading to the river minimised the amount of product which entered the river.

It was rapidly appreciated that this incident had the potential to develop into a major catastrophe and all Government and industry resources were directed to rectifying the problem which was spread over approximately one kilometre of open and closed drainage between the accident scene and the river.

Accident Scene. Because of the danger of ignition, the power was turned off in the area. Approximately 400 homes were affected and moves were made to evacuate all premises within 500 metres of the accident scene. Leakage of the product was stemmed approximately 90 minutes after the overturn and the oil company representatives proceeded (over the next six hours) to empty all compartments of the vehicle. The vehicle was then righted and towed away to a nearby storage depot.

Drainage Termination/River. The boom system constructed over the open drain at the river side contained most of the spilled product.

In order to minimise the hazards and reduce the concentration of vapour at the river side operation foam was applied to the petrol. This had the effect of emulsifying some product which subsequently escaped under the boom and entered the river. This was not considered by the Swan River Management Authority personnel on site to present an intolerable degree of harm to the ecology in the area.

Action was then taken to pump the product into a tanker for removal and to clear the drain. The drains were cleared by 0400 hours and all areas of the drainage system, upstream of the river were declared safe at that time following tests by an officer from the Explosives & Dangerous Goods Division who established that no flammable atmosphere was present.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 10/85

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DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 11/85

Summary of the Incident:

Date: 6 May 1985

Location: Newman Access Road

Dangerous Goods Involved:

Jet Al, Class 3.2

Scenario

A cartage contractor was transporting 49 290 litres of Jet Al fuel from Port Hedland to Newman. The fuel was being transported in 6 demountable tanks having a nominal capacity of 8000 litres.

At approximately 1030 hours, the road train ran out of control on a section of unsealed road 286km from Port Hedland. According to the driver the event may have been caused by him having to sneeze. The result was that the rearmost trailer overturned, thereby dislodging the three tanks from this trailer and causing considerable damage to the tanks. The product lost was 10 470 litres and the remainder of product on this trailer, 13 960 litres, was pumped into other demountable tanks which were later brought to the accident site. The recovered product was returned to Port Hedland and downgraded to diesoleum by pumping it into the main diesoleum storage tank. This had to be done due to possible contamination.

Mining company personnel assisted in the righting of the semi-trailer. The police or fire brigade were not involved. There were no casualties.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 12/85

Summary of the Incident:

Date: Tuesday, 21 May 1985

Location: Transport Depot, North Perth W.A. 6006

Dangerous Goods Involved:

25 litres of hydrochloric acid solution, U.N. No. 1789, Class 8, Packaging Group II.

Scenario

A drum of the cleaner burst in the vehicle while in transit. The drum showed distinct signs of swelling at the top and bottom and this had caused the drum to open at the bottom seam. The contents of the drum had sprayed out and contaminated most of the other goods inside the vehicle.

Initial contact was from the Manager of the transport company direct to the Explosives Division. As the incident did not seem to involve goods in transit nor was it possible at that stage to determine exactly what was involved, the Emergency Services were not contacted and an Inspector attended at the scene to assess the situation. Soon after arrival, the Manager of the chemical company involved also arrived and the incident seem to not have any serious consequences and the product was not a pollutant, it was left in the hands of the industry personnel.

The damaged container was retained by the Explosives Inspectorate for evidence.

It seems apparent that the contents of the drum have reacted with the drum itself releasing hydrogen gas which has built up inside the drum and generated enough pressure to ultimately burst the drum.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 13/85

Summary of the Incident:

Date: 1 June 1985

Location: Trigg

Dangerous Goods Involved:

Diesel Fuel Class 3.2*
U.N. No. 1271 Packgaging Group II
*By virtue of Reg. 104(b) Dangerous Goods (Road Transport) Regulations, 1983

Scenario

The road vehicle combination was a White Prime Mover and associated semi-tanker trailer. Whilst travelling north along West Coast Highway the driver was temporarily blinded by the high beam of an approaching vehicle. The vehicle combination mounted the kerb and rolled over on to its side skidding approximately 10 metres before coming to rest. The tanker remained intact. Approximately 30 litres of distillate fuel escaped from the vehicle's fuel tanks and from the tanker. 33 000 litres of distillate was transferred into an adjacent tanker and the vehicle was righted without incident and towed away.

Police officers controlled traffic flow around the accident scene. Fire Brigade officers were on hand to contain any spillage and prevent any ignition of the fuel. City council workers attended to the subsequent clean up of the fuel and the fuel saturated sand.

No breaches of the Dangerous Goods (Road Transport) Regulations 1983 were noted. In this incident the cause was accidental.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 14/85

Summary of the Incident:

Date:	Friday 21 June 1985
Time:	Between 9.00 - 10.00pm
Location:	Albany Highway approximately 45km south east of Armadale.

Dangerous Goods Involved:

"Trifluralin" weedicide, Class 3, U.N. 1993.

Scenario

The semi-trailer truck marked with Class 6 hazard diamonds collided with a car and swerved to the right across the road. It then overturned spilling the load of cement, wire and 10 x 20 litre drums of pesticide onto the ground. One of the drums split open allowing the product to flow onto the rest of the consignment. Clean up was quickly effected and the partly damaged drums were removed for disposal.

No-one was affected by the chemical but both vehicle drivers required medical attention and were taken by ambulance to hospital because of their injuries sustained in the crash. With the exception of the incorrect placarding of the vehicle, which in this case was not of major significance, the operator complied with the requirements of the Dangerous Goods (Road Transport) Regulations.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 15/85

Summary of the Incident:

Date:	26 April 1985
Location:	21km peg York Road, York
Dangerous Goods Involved:	Diesel fuel, not dangerous goods by virtue of Reg. 104(b) of the Dangerous Goods (Road Transport) Regulations, 1983 (no other goods having a flammability hazard were on the vehicle).

Scenario

On Friday, at approximately 1200 hours, a rigid tanker towing a tank trailer was travelling along York Road, York, when the towing hitch snapped resulting in the trailer leaving the road, hitting a fence (on a farm) and rolling over.

The vehicle combination was conveying a whole load of diesel fuel at the time of the incident.

A small amount of diesel fuel was spilt onto the farm paddock which did not present any danger to the public. The contents of the disabled trailer was subsequently transferred to a relief tanker.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 16/85

Summary of the Incident:

Date:	5 August 1985
Location:	Corner Thomas Road and Medina Avenue, Medina.
Chemical:	2:4 dichloro phenoxy acetic acid (2,4D) supplied as dry powder in bags. No Dangerous Goods listing.

Scenario

The unmarked semi-trailer was forwarding an unlabelled seatainer loaded with 16 tonnes of chemical. The driver attempted to turn right into Medina Avenue, lost control of the vehicle and the load fell sideways to the left hand side. The driver had been only working for two days with the company and had driven the wrong way into Thomas Road instead of the Kwinana industrial area.

No spillage of the chemical occurred. Mobile cranes were used to lift the seatainer onto another truck for transfer to the premises of the chemical company. Opening of the seatainer showed that no spillage or breaking of the bags had occurred and no clean-up of chemical was required.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 17/85

Summary of the Incident:

Date: 31 August 1985

Time: 3.15am

Location: North West Coastal Highway - 70km North of Broome

Product involved: Distillate fuel - not dangerous goods.

Scenario

A double bottom road train loaded with distillate in Broome on the afternoon of Friday August 31, 1985 was then driven to Roebuck Roadhouse and parked for the night. The driver rose early and left for Derby and is thought to have gone to sleep momentarily at the wheel. A white guidepost by the side of the road was hit awakening the driver and causing him to swerve abnormally. The dog trailer overturned. The prime mover was fitted with two way radio which sounded an emergency alarm at the Prime Contractor's premises. The road was cleared by 7.00am.

Two compartments split on impact with the bitumen. None of the hatches failed but due to a lack of heavy lifting gear it was necessary to open some hatches and release the load. Only 6 210 litres of a 36 160 litre load was saved.

The trailer was scrapped.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 18/85

Summary of the Incident:

Date: 5 September 1985

Time: 10.20pm

Location: Freight Terminal, Perth Airport

Product involved: Technicium - 99m (25mCi)
Chromium - 51 (5mCi)

Scenario

A mobile loader dropped and then ran over two packages containing radioactive substances, on the tarmac in front of the airport terminal building. Both packages had been partly squashed and the tinplate container of one had started to split. An officer from the Radiation Health Department considered that the radioactive substances had been contained. Checks for contamination at the location and on five personnel proved negative. The packages were also checked for leakage the following day and none was found.

Police and Fire Brigade personnel attended but their assistance was not required.

Action Being Taken:

It was concluded that the packaging was effective and prevented escape of radioactivity. Proper handling procedures were not adopted by untrained personnel. This latter item is receiving attention.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 19/85

Summary of the Incident:

Date: 26 September 1985

Time: 2.00am

Location: Between Wagin and Katanning

Product involved: Gramoxone W Sub-Class 6.1
U.N. No. 3016

Scenario

32 x 20 litre containers of Gramoxone W were despatched from Kewdale to Katanning, leaving at approximately 8.00pm on Wednesday, 25 September 1985. On arrival at Katanning at 2.00am Thursday, 26 September 1985, 7 of the drums were missing. Katanning police were advised and a search started along the route the vehicle had taken. By 10.15pm that night 6 of the containers had been located and 4 had lost their contents. The remaining drum was not recovered. The driver had covered the load with a tarpaulin. No gates were used. The pallet was not shrink wrapped.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 20/85

Summary of the Incident:

Date: 4 November 1985

Time: 2.30pm

Location: Balcatta Road (near Foley Street)

Product involved: Petroleum fuel Class 3.1, U.N. 1270, 2000 litres in compartment No. 2 of a two compartment tank.

Scenario

A road tanker vehicle was loaded with 2000 litres of super petrol on the afternoon of 4 November 1985. After departure from the fuel depot and proceeding in an easterly direction along Balcatta Road for about 700 metres, the driver became aware that petrol was spilling from the vehicle.

The vehicle was stopped and petrol was observed gushing from the filling tube of the No. 2 compartment. The space between the tank roll-over coamings and the front and rear valances was containing the petrol, but the coaming drainage was allowing the petrol to drain through the rear drainage hoses onto the roadway. The spillage had occurred over approximately 700 metres of roadway.

At the point where the vehicle had been stopped, some petrol had entered storm water drainage system. An estimated 600 litres of petrol was lost from the vehicle. At the request of the driver the W.A.F.B. had sprayed the tanker with water, as petrol had splashed onto hot engine parts during the time petrol was being expelled through the compartment filling tube.

Sand was used to contain spilt petrol on the roadway. Contaminated water was later recovered from the City of Stirling storm water sump.

An examination of the vehicle and tank at the accident scene indicated that the compartment was not being vented correctly. It appeared that the pressure and vacuum vent was inoperative. This vent was removed from the tank after the vehicle had been cleared to return to the depot premises from which it operated.

The pressure and vacuum vent was subsequently dismantled and found to be seized in the vacuum mode. The accumulation of grit in the vent had contributed to this failure. The vent was easily repaired and re-assembled.

A further examination of the vehicle and tank on the morning of 5 November revealed that the tank compartment filling tubes were not vented between the filling tube internal space and the compartment ullage space as required by AS 2016 - 1982 Clause 3.3.8(a). This lack of venting caused the pressure in the ullage space to be different from that in the space above the liquid level in the filling tube. As a result of this, liquid petrol was forced upwards in the filling tube until the pressure forced the filling tube cam lock cover off and petrol was expelled. This continued to occur until the pressure in the tank was relieved by opening the emergency vent/open hatch filling cover.

Both filling tubes on this 2 compartment tank were found to be deficient in regard to the pressure equalisation aperture between the fill tube internal space and the tank ullage space.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 21/85

Summary of the Incident:

Date: 19 November 1985

Location: North West Coastal Highway
Geraldton

Dangerous Goods: Super motor spirit
UN No. 1270 Class 3.1

Scenario

The vehicle involved was a rigid tray top with an associated dog tanker. Three demountable tanks were located on the vehicle tray. Whilst travelling north along NW Coastal Highway the right hand rear hanger strap broke causing the vehicle tray to sag on to the right hand rear tyres. This change in attitude caused fuel to leak from the top of the foremost tank and the increasing heat of the day exacerbated the situation causing the fuel to expand and leak further.

The trailer was unhitched and while traffic was controlled by the Police, Fire Brigade personnel dispersed the spill. The vehicle was removed intact and transported for repair while the trailer was towed away independently.

No breaches of the Dangerous Goods (Road Transport) Regulations 1983 were noted.

DANGEROUS GOODS TRANSPORT ACCIDENT REPORT 22/85

Summary of the Incident:

Date:	2 December 1985
Location:	Freight Terminal Kewdale
Dangerous Goods:	"Solvesso 100" Petroleum Distillates, n.o.s.

Scenario

At 1145 hours, Monday, 2 December 1985 a 6 metre freight container situated at the Freight Terminal was reported to be leaking a product called "Solvesso 100".

The container was unpacked and the leaking 200 litre drums were removed and subsequently disposed of.

The product was labelled with the incorrect U.N. number which made the operation of rendering the situation safe more complex. The appropriate Hazchem code for U.N. 1256 is 3 W which is different from the 3 Y assigned to the product by the manufacturer.

Investigations have revealed that the shunting of the rail wagon (carrying the container) was not conducted in a satisfactory manner, causing the goods to distort the closed end of the container and damaging 200 litre drums of "Solvesso 100".

The situation was rendered safe at 1358 hours.

No breaches of the Dangerous Goods (Road Transport) Regulations 1983 were noted.

Committee and the subsequent formation of the Western Australian Counter Disaster Advisory Committee, no conclusions or recommendations have been drawn from the training exercise and no coherent follow-up action has been implemented. This could best be described as a disappointing conclusion.

On a more positive note, following the rejection of some proposed legislation by the Legislative Council, the Hon. Minister spent some time reviewing the regulations with the Western Australian Road Transport Association. This resulted in an analysis of accident reports by the Industry and subsequently steps were taken to prescribe requirements which are aimed at improving the safe transport of packaged dangerous goods.

The Division actively publicised the proposed legislation before it was promulgated and it is believed that this has been a significant contributing factor towards the decline in accidents which occurred in the latter half of the year.

H Douglas
DIRECTOR, EXPLOSIVES DIVISION

19 March 1986

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