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Incident Investigation Report Dangerous Occurrence / Near Miss Event	
Site / Area: Kronospan Lorry Park	Reference:
Date of Incident: 06/06/2013	Time of incident: 10:05
Name of person(s) involved in the incident: Stephen Ellard (Synthite Driver)	
If a contractor name & address of employer: Synthite, Alyn Road, Denbigh Works, Mold, CH7 1BT	
Occupation(s): Tanker Driver	
Name of Witnesses: None	
Department / Area: Formalin / Despatch Lorry Park (a reception area prior to entering the site)	
Manager/supervisor: In Site Formalin Plant – Chris Taylor (Formalin Plant Manager)	
Date & time of preliminary investigation: 06/06/2013 (written report 07/06/2013)	
Place where incident occurred: Kronospan Lorry Park	
Date and time of formal investigation: 06/06/2013 (written report 07/06/2013)	
Whether reported to the HSE inspector: Yes, also reported to the NRW, WCBC and the Local parish Councillors	

	INITIALS	DATE
OK FOR PUBLIC REGISTER	<i>[Signature]</i>	24.6.13
COPIED TO PUBLIC REGISTER	JB	EDRM

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Medium / High Level Investigation Report

Site / Area: Kronospan / Lorry park (Lorry tanker reception area)

Nature of Occurrence: A Synthite tanker delivering methanol to the Kronospan Site was driving around the Lorry Park reception area when the rear axle on the left hand side of the vehicle buckled and a tyre blow out on the same side. This resulted in a weep of methanol from a flange on the delivery pipe.

Incident occurred at 10:05

Incident stood down by Fire Brigade at 15:47

People involved in the Investigation:

Keith Baker
Chris Taylor
Robin Cox

Incident Management

The Incident was attended by:

3 fire tenders (15 fire fighters)
2 Fire Officer Vehicles (2 Officers)
2 ambulances (4 paramedics)
3 police vehicles (6 police officers+ 2 community officers)
1 Incident Response unit (4 officers)
1 Environmental Response unit (4 officers)
Kronospan Fire tender (5 fire fighters)

Total 42 (including Kronospan fire team)

Kronospan Management Team

Initially Phil Bloor (Manufacturing Director)

Kronospan Incident Management

Chris Taylor (Formalin Plant Manager)
Keith Baker (Health and Safety Manager)
Robin Cox (Resin Plant Manager)
Jeff Booth (Fire Prevention Manager)
John Pickering (Fire Prevention Officer)
James Henderson (Environmental Coordinator)

Synthite

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Julian Rogers (Transport Coordinator)
1 other arrived to site to help with tanker to tanker transfers

In attendance at 12:05 Claire Whitley Welsh Water – Incident details given
happy with response – no issues

Contact made with:

Ian Oakes - Natural Resources Wales (~1100hrs)
Environmental Protection - Wrexham County Borough Council (~11:15hs)
Nan Cox HSE - (HID) Bootle (~16:45hrs)
County Councillors – (~11:00hrs)

Date of Investigation: 06/07/06/2013

1) History of Occurrence :- (see appendix 1, Statement taken from Stephen Ellard 06/06/2013 at ~11:00hrs)

The Synthite tanker driver (on this occasion Stephen Ellard) delivers methanol to the Kronospan Formalin Plant, during the morning he had previously delivered a load this was his second load of the day. On arrival at the site the driver drives around the lorry park reception area before driving onto the site weighbridge and then on to the formalin Plant for discharge into the methanol storage tanks.

Incident

The Synthite tanker driven by Stephen Ellard had arrived at site with his second delivery of methanol, he had turned in off Holyhead Road and onto the site approach road he then turned left onto the lorry park reception area. When at the top of the park he turned around a small island and at this point he heard two loud bangs from the rear of his vehicle.

He stopped his vehicle and initially isolated the power via the tanker isolation switch, he then got out of his cab to find out what had happened. On examination he found that the rear axle on the left hand side of the vehicle had buckled and there was a tyre blow out on the same side. This had resulted in a weep of methanol from a flange on the delivery pipe that was going to floor.

The tanker driver called the emergency services who attended the site, the first fire engine arriving at 10:12 (see appendix 2 Weighbridge Log). The Weighbridge contacted the Kronospan management team who also attended the incident. Details of those in attendance at the incident can be found in this report under: Incident Management.

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The driver after contacting the emergency services tried to stop other vehicles from moving around the Lorry Park and put spill containment pads under the methanol leak. He then stayed with his vehicle until the emergency services and the Kronospan management team had arrived.

The area was cordoned off to prevent unauthorised access by vehicles or people with hazard warning tape and a gas meter calibrated to indicate %LEL methanol was placed beside the tanker to give indication of flammable atmospheres. The lagoon penstock valve was shut on notification that an incident had occurred (10:15hrs) to stop waters leaving the site to the River Dee via the Afon Bradley. All drains in the area of the incident were then sealed to prevent potential surface water contamination.

Use of petrol driven vehicles and equipment was prohibited in the area and a site wide no smoking ban put in place as of 10:50hrs.

The Kronospan management team were in constant discussion with the incident commander. Initially both Synthite and the fire brigade tried to stop the leak by tightening the flange and using denso tape but this did not work. It was then agreed that the contents of the crippled tanker should be transferred to another tanker which could then enter the site to discharge to the methanol tanks in the usual way.

Tanker to tanker transfer could not be carried out in the usual way due to the damage to the crippled tanker so two manhole covers had to be removed from the top of the tank and a hose dropped in to effect tanker transfer.

The crippled tanker when empty was then half filled with water to dilute any residual methanol and to remove methanol vapour from the vapour space within the tanker to low % LEL levels. At this time a test was carried out on the vapour space within the tanker with a reading of 3% LEL methanol was obtained, this was an acceptable level. At this point the Fire Brigade Incident commander stood his teams down (15:47hrs), the emergency vehicles left site.

The water was then be tankered off site by Enviroclear (arranged by Synthite) for disposal and the crippled tanker taken off site on a low loader for examination / repair.

The leak from the tanker during the incident was minimal, it could not have been more than a few litres and was easily being captured by spill containment material underneath the tanker. After the incident it was estimated from weighbridge records that we had lost between 40 and 60kg of methanol. That loss was residual methanol that remained after tanker to tanker transfer which was then diluted with water before off site disposal.

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Comments

- It has since come to our attention from discussions by Kronospan personnel with the tanker driver Stephen Ellard that issues with the tanker foot valve had been reported a few weeks earlier.
- The vehicle has passed an ADR MOT the day before the incident.
- The vehicle barrel had been inspected 1 month ago.

Appendices

Appendix 1 Statement taken from Stephen Ellard 06/06/2013 at ~11:00hrs

Appendix 2 Weighbridge Log

Appendix 3 Various Photographs

2) Outcome of Investigation

To be written by Synthite

The incident had been managed effectively by both Kronospan, the emergency services and Julian Rogers from Synthite

3) Actions to Prevent Re-occurrence

Short Term Action

As described above – incident management / safe transfer of the methanol to another tanker for discharge to the site methanol tanks.

Medium Term Action

To be written by Synthite

Long Term Action

To be written by Synthite

Signature of Investigation Chairman

SHE Managers Comments on Proposed Actions

Signature

Date:-

Works Directors Comments

Signature

Date:-

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Appendix 1 Statement taken from Stephen Ellard 06/06/2013 at ~11:00hrs

<p><u>Stephen Ellard</u> <u>statement</u></p> <p><u>06/06/13</u></p> <ul style="list-style-type: none"> second delivery of day 35,000 28th methanol. normal routine onto lorry park followed system around park no one in front or behind around roundabout 2 bang noises 1st air suspension air bag 2nd bang / blow tyre. initially isolated wagon shutting power via isolation switch went to back to check on problem (how bad was it) Then phoned emergency services 	<ul style="list-style-type: none"> Also trying to stop other vehicles on park Asked another driver to go to weighbridge Driver put spill containment area of methanol spill around Stayed with truck / wagon until Krispan / emergency services arrived <p><i>Fin</i> 06-06-13</p>
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Appendix 2 Weighbridge Log

METHANOL SPILL LOG

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Baker, Keith

From: Weighbridge Staff
Sent: 06 June 2013 18:29
To: McKenna, Mike; Baker, Keith; Henderson, James; Bloor, Phil
Subject: METHANOL SPILL LOG

METHANOL SPILL LOG 6/6/13

10.05 Synthite tanker broke rear axle which split tank. Driver called emergency services

Rang : M.McKenna, Phil Bloor, Keith Baker, James Henderson, Chris Taylor, Mark Humphries

	Onsite	Offsite
Fire engine 1	10.12	16.08
Fire engine 2	10.15	16.05
Fire engine 3	10.15	16.10
Ambulance	10.20	13.40
Fire truck	10.23	16.05
Fire officer (car)	10.25	16.15
Fire officer (car)	10.25	16.15
Police car	10.29	11.02
Fire engine	10.50	16.05
Fire incident unit	10.50	15.50
Fire incident unit	10.50	15.45
Ambulance	10.55	13.10
Empty synthite tanker arrived to tranship & tip	12.05	17.13
Internal Fire Engine	10.15	16.20
2 x Enviroclear tankers	14.45	17.00

07/06/2013

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Appendix 3 Various Photographs



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Appendix 3



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Appendix 3 – Damage to rear axle and tyre



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Appendix 3 – Damage to rear axle and tyre



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Appendix 3 – Methanol Tanker to tanker transfer

