ICI DULUX PAINTS IRELAND

ANNUAL ENVIRONMENTAL REPORT
2008

REGISTRATION No. P0218-01

ICI DULUX PAINTS IRELAND LTD.

ANNUAL ENVIRONMENTAL REPORT 2008

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ANNUAL ENVIRONMENTAL REPORT 2008

2.1.1 INTRODUCTION

Registration No: P0218-01

Company Name: Dulux Paints Ireland

Site Location: **Shandon Works**
Common's Road
P.O. Box 45
Cork

Telephone: 021 – 4220222
Fax: 021 – 4220205

National Grid Ref: 1670E, 7400N

Contact Name: **John O'Connell**
Adrian Greene

ANNUAL ENVIRONMENT REPORT

2.1.2 SITE DESCRIPTION

DULUX PAINTS IRELAND **is the largest paint manufacturer in Ireland. Founded in 1885 the Company operates a major manufacturing plant at the Commons Road site and with warehouses in Cork and Dublin it employs 163 people.**

In January 2008 ICI Paints (of which Dulux Paints is a subsidiary)was taken over by AkzoNobel and the combined businesses mean that AkzoNobel is the largest paint manufacturer in the world.

The working hours are as follows for the plant:

07.30 hrs - 13.00 hrs and 13.30 hrs – 18.00 hrs (Mon. – Thurs.) 16.00 hrs finish on Friday.

The Company manufactures and markets a range of decorative paints, high performance coatings for trade and general industrial users, a range of woodcare and metalcare products and some other ancillary products.

The Cork site comprises Head Office, Factory, Warehouses and Laboratory on a site of 13. 879 acres.

The Company also manufactures paint for export to supplement the UK business when required.

Dulux Paints Ireland has its own technical resources and in addition product development is based primarily on technological advancement as part of AkzoNobel.

The Company manufactures high quality products and has a number of formal quality system approvals. Refer to attachments.

COMPANY ACHIEVEMENTS LADDER

2002/03/04		IITD National Training Awards
2005		National Training Awards/Learner of the Year
2006		National Training Awards 2nd Consecutive Year/Outstanding Achievement; in Learner of the Year Category
2006	Quality Approved	EIQA Quality Awards – Winner of Manufacturing
2007		National Training Awards 3rd Consecutive Year/Outstanding Achievement; in Learner of the Year Category
2008	Quality Approved	EIQA Quality Awards -
2007	PLATINUM	Excellence Through People Platinum Accreditation
2008		National Training Awards 4th Consecutive Year

SECTION 1

GENERAL STATEMENT OF POLICY

It is the policy of DULUX Paints Ireland , part of the ICI Paints international business ar a wholly owned subsidiary of Imperial Chemical Industries plc ("ICI") to comply fully wi the Safety, Health and Welfare at Work Act, 2007 and the Safety, Health and Welfare at Work (General Applications) Regulations 1993 and as amended Regulations 2001 to ensure so far as is reasonably practicable the safety, health and welfare of all employees at our places of work. Also in accordance with the ICI policy, subsidiaries are required to establish and to implement safety, health and environment policies, which are consistent with those that apply throughout the ICI Group worldwide.

We commit to provide such information, training and supervision as may be required for this purpose. This safety statement is a plan to minimise the risk of injury and ill health at our workplace.

It is also the policy of DULUX Paints Ireland to protect, as far as reasonably practicable, persons not employed by this company such as neighbours, contractors and visitors who may be affected by our activities. The company is committed to meeting the relevant environmental regulatory standards set by the Environmental Protection Agency (EPA) and has adopted environmental objectives set by the ICI Group.

In pursuance of the general statement of safety policy the company will provide and maintain a safe place of work, safe plant and machinery, safe systems of work and competent employees. We shall carry out a detailed hazard identification exercise, risk assessment and implement control measures as required. Resources shall be made available as necessary. The Irish Management Team (IMT) has overall responsibility to implement the safety policy and to provide adequate resources on an ongoing basis to implement the safety management system.

All employees have the responsibility to co-operate with management to achieve a healthy and safe workplace and to take reasonable care of themselves and others.

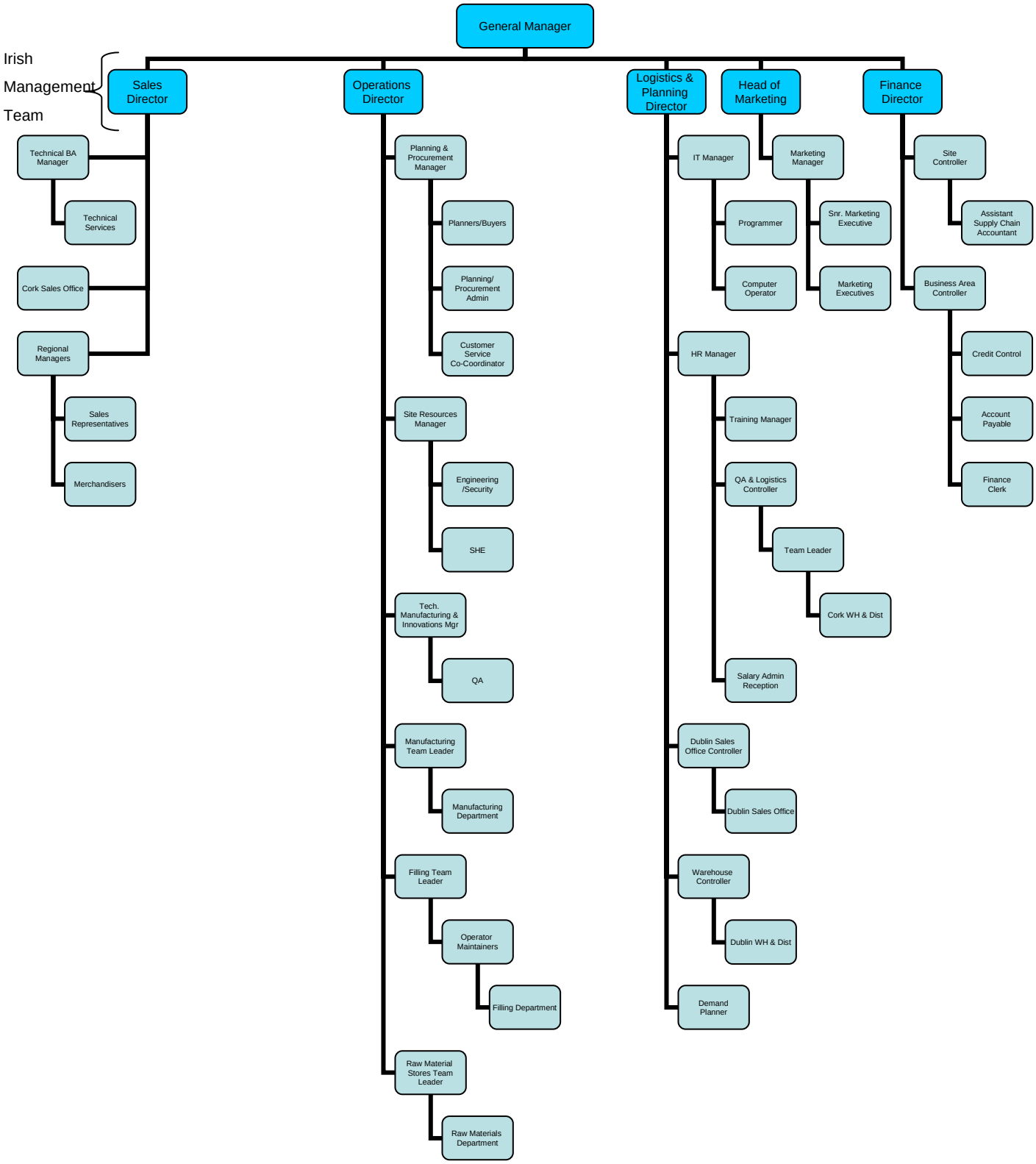
It is the policy of this company to consult all staff and employees on matters of health and safety. Employees are hereby notified of the company policy and are encouraged to comply with their duties under the 2007 Act to notify the company management of identified hazards in the workplace.

The allocation of duties for safety matters and particular arrangements to implement the policy are set out in this Company Safety Statement. This policy will be kept up to date, to ensure this, the policy and the way in which it has operated will be reviewed annually.

Signed ..... Date 4/4/08

Mr. David Hughes Operations Director, Irish Management Team.

DULUX PAINTS ORGANISATION CHART



2.1.5 LOCAL ENVIRONMENTAL CONDITIONS

The Company has no record of complaints from our residential neighbours regarding noise, odour or emissions to air, sewer or water.

Noise and odour from our activities are not significant and are not detectable or measurable at our site boundary.

Air pollution in Cork City is monitored by Cork City Council and we submit a summary of their SO^2 monitored emissions for 1988 – 2007. We have a particular interest in the results from one monitoring station at Blackpool , which is a densely populated area and adjacent to our site. There is a downward trend in SO^2 emissions and our contribution to this was the conversion from heavy fuel oil to natural gas (1997) for our main steam boiler.

Attachments:

Details of SO^2 emissions monitored by Cork City Council 1988 – 2007.

(2008 report not available at time of printing)

3. Sulphur Dioxide

Most fuels contain small amounts of sulphur as an impurity and when burned sulphur dioxide is produced. It is acidic and irritating when breathed.

Results

Processed data based for the old acidimetric procedure for the year 2006-2007 (1April-31 March) is presented in Table 1 below. Previous years' results are in brackets.

Table 1

Network (ug/m3) 2006-2007 (Previous Years in brackets)

Max	17 (23) (24)
Values >250	0 (0) (0)
98% ile	12 (12) (16)
Median	5 (7) (8)
Mean	6 (7) (8)

Standards

EU standards require:-

1. 250 ug/m3 not to be exceeded on 4 or more consecutive days when suspended particulates are greater than 150 ug/m3 or 350 ug/m3 when s.p are less than 150.

2. 98 %ile not to exceed 250 ug/m3 when s.p .150 or 350 if s.p <150.

3.Annual median not to exceed 80 ug/m3 when s.p >40 or 120 if s.p <40.

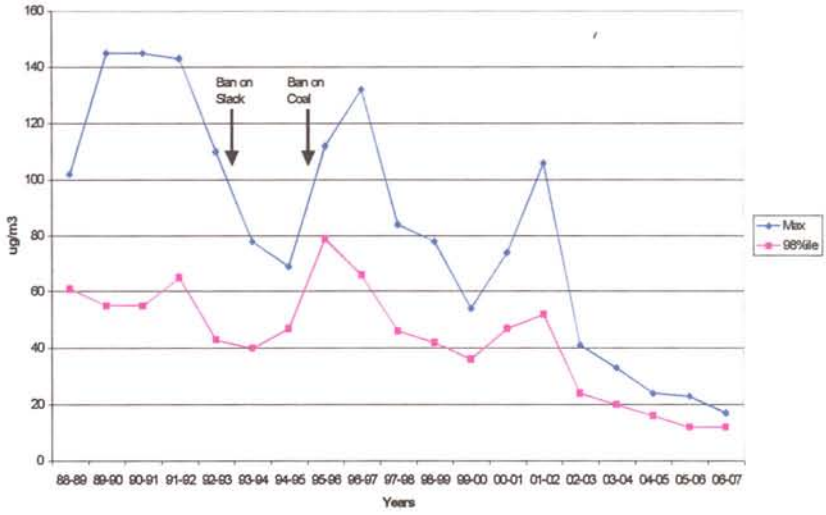
4. Winter median not to exceed 130 ug/m3 when s.p>60 or 180 if s.p <60.

Monitoring indicates that the air in Cork is compliant with this old Standard.
The WHO guideline of max. 125 ug/m3 for any 24 hour value is also compliant.

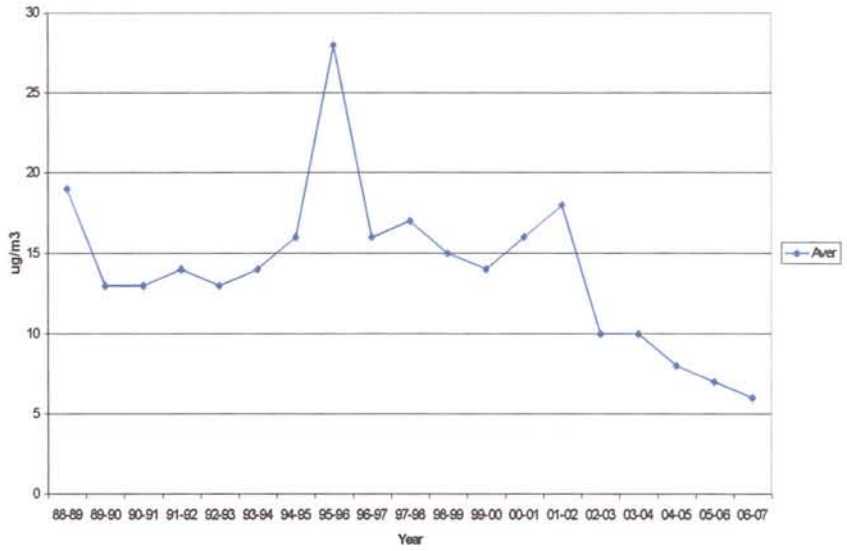
Discussion

The maxima and 98%ile figures for the year are substantially down on previous years (similar to the S.P results).
The variation over the years is shown in Fig 1 below. It shows how a rise in levels was experienced on the change over from coal to solid fuels in 1995 and how these levels have now declined to those of former years.
This method can best be described as approximate only at the low levels being encountered in Cork.

SO2 Annual Trends



Annual Average Trends



New (Fluorescent) Method for SO2 and Standard

A new standard from the EU, transposed into Irish Regs (271 of 2002) has a requirement for hourly samples by the fluorescent method.
The old acidimetric method measures 24 hour samples only.
A new automatic method based on fluorescence is in operation at Old Station Road since 23/04/99.

Results for 2007 (previous years in brackets)

1.The maximum value recorded for the one hour sample was 57 (33) (78) (57) ug/m3.

2. The max 24 hour value was 24 (19) (41) (21) ug/m3

3. The average one hour value was 4.2 (4.3) (7.1) (4.0) (5.0) ug/m3.

Comparison with Standards

The new EU standards require:-

1. 350 ug/m3 not to be exceeded more than 24 times a calendar year for the hourly readings. The max recorded was 33 ug/m3 so this is in compliance.

2. 125 ug/m3 not to be exceeded more than 3 times a calendar year for the daily readings. The max recorded was 19 ug/m3 so this is in compliance.

Discussion

The results are well within the limits required by the EU directive.
The monitor does not function very accurately at the low concentrations found in Cork. There is some drift and inconsistency.

Difference between the Methods

It was always realised that the old acidimetric method at low levels was inaccurate: a titration figure of 0.1 ml was about equivalent to 7 ug/m3 and there were other factors that tended to make the results approximate only. The length of the intake PVC tubing and its age tended to increase the potential of acid leachate from the tube itself causing a positive interference. A negative interference could be caused by ammonia sources such as toilets, animals etc. Errors are also likely from drift in the pH at 4.5 before and after the sample exposure.
Nevertheless the old acidimetric method begun in the 1950's and intended to provide a widespread coverage of SO2 levels was useful in its time. The results are more accurate above 100 ug/m3 at which point the guide and maximum levels in the legislation become more pertinent.

2.1.6 SOME DIMENSIONS

Employment	**153 persons**
Markets	**Republic of Ireland and Export**
Brands	**Dulux, Uno, Valspar, Glidden, Sikkens, International,Cuprinol, Hammerite, Polycell and other Sundry labels**
Main Sites	
Cork:	**Factory, Warehouse, Laboratory, Head Office, and Trade Centre**
Dublin:	**Unit J, South City Business Park, Tallaght: Warehouse, Area Offices and Trade Centre**
	Sth. Frederick St: TradeCentre

2.2.1 DATA / SUMMARY INFORMATION

Emissions to Sewer

Schedules 3 (i) and 3 (ii) **Emission Point SE1**

Since operating our Trade Effluent Buffer Tank in 1998 we have continued to reduce the quantity of effluent discharged to sewer: However, in recent years there has been a levelling off with small variations in the amounts discharged. See below for details.

1998 - **260 M³**

1999 - 101 M³

2000 - 73 M³

2001 - 68 M³

2002 - 27 M³

2003 - 40 M³

2004 - 30 M³

2005 - 9 M³

2006 - 12 M³

2007 - 14 M³

2008 - 15 M³

We were fully compliant with all the discharge parameters outlined in schedules 3 (i) and 3 (ii). Trade effluent analysis report attached in Appendix 1.

Attachments

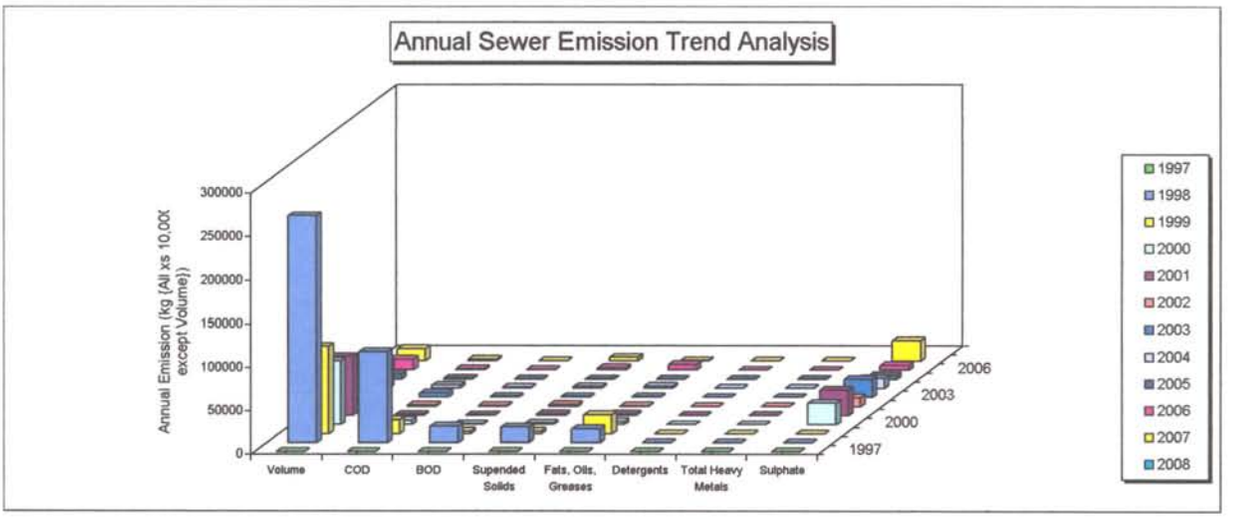
- Emission to Sewer Annual Report including Trend Analysis for 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007 and 2008.
- Emissions to Sewer 2008 – Summary of in-house monitoring.

Sewer Annual Report

Emissions to Sewer

Parameter	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr
Volume	0	260700	100500	73200	67800	26300	39700	29600	5752	12230	13910	15018
COD	0	10.5	1.6	0.5	0.1	0.13	0.48	0.33	0.11	0.10	0.14	0.08
BOD	0	1.9	0.3	0.1	0.0	0.04	0.08	0.06	0.01	0.02	0.04	0.03
Supended Solids	0	1.8	0.3	0.1	0.1	0.22	0.08	0.19	0.02	0.24	0.41	0.05
Fats, Oils, Greases	0	1.6	2.2	0.3	0.1	0.05	0.08	0.24	0.01	0.62	0.06	0.07
Detergents	0	< 1	< 1	< 1	<1	<1	0.7	0.08	<0.2	0.35	0.05	0.05
Total Heavy Metals	0	< 1	< 1	< 1	<1	<1	<1	<1	<1	1.12	1.58	<1
Sulphate	0	< 1	< 1	2.5	2.9	0.98	2.10	1.15	0.41	0.58	2.35	0.90
pH (Ave)	-	-	-	-	8.2 units	8 units	8.0	7.9	8.0	7.4	7.9	7.5
Temperature (Ave)	-	-	-	-	13.2 °C	-	-	-	0.0	0.0	0.0	0.0
Organic Solvents	-	-	-	-	-	-	-	-	0.0	0.0	0.0	0.0
Micro Toxicity (TU)	-	< 2	< 2	< 2	<2	<2	<2	<2	<2	<2	<2	<2

Note: No data for 1997



Parameter	Compliance
	2008
	%
Volume	100%
COD	100%
BOD	100%
Supended Solids	100%
Fats, Oils, Greases	100%
Detergents	100%
Total Heavy Metals	100%
Sulphate	100%
pH (Ave)	100%
Temperature (Ave)	100%
Organic Solvents	100%
Micro Toxicity (TU)	100%

Details of non compliance

Date	Non-compliance	Cause	Corrective action
	None		

EMISSIONS TO SEWER 2008

TRADE EFFLUENT BUFFER TANK

EMISSION POINT No. SE1

MONITORING POINT : SUMP No. 20

SCHEDULE 3(i) & 3(ii)

YEAR	NUMBER OF BATCHES	QUANTITY DISCHARGE M³	DISCHARG TIME hours	AVG M³/HR	pH		COD		TEMP °C	
					MAX	AVG	MAX	AVG	MAX	AVG
2008	6	15	23.25	0.65	7.8	7.47	9	5.4	16.3	12.2

2.2.2 EMISSIONS TO WATER (COOLING WATER)

Schedule 2 (i) **Emission Point SW2**

There is a history of reduction over the past number of years and this is due to re-organisation of our manufacturing process which resulted in the closing of our solvent based manufacturing building and a large reduction in the manufacture of solvent based paints. However, an increase in 2007 was due to an unusually large order which required a manufacturing process that used cooling water.

We monitor the emissions weekly and the summary data recorded. We discharged 601 M^3 cooling water in 2008 which is down on 2007 figure and indicates that we are in full compliance with the discharge parameter 100 M^3 / day and with the temperature.

Attachment:

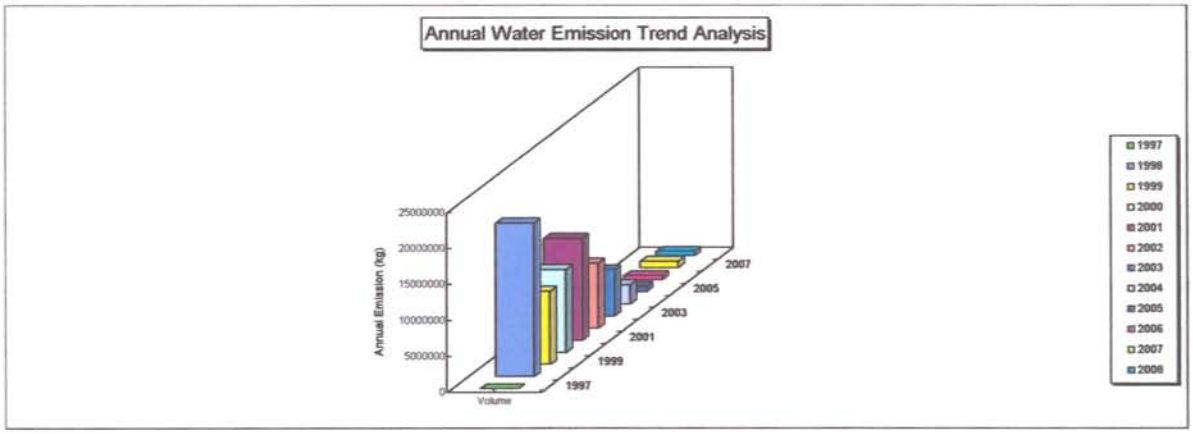
- Water Annual Report and Trend Analysis for 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006 , 2007 and 2008.

Water Annual Report

Emissions to Water

Parameter	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr
Temperature	-	-	-	-	-	-	-	-	-	-	-	-
Volume	0	21428000	10184000	11568000	14238000	9074000	6436000	2655000	749000	612000	932000	801000

Note: No data for 1997
Cooling water is the main source



Parameter	Compliance
	2008
	%
Temperature	100%
Volume	100%

Details of non compliance

Date	Non-compliance	Cause	Corrective action
	None		

This is the amount of water used for cooling and then discarded to the river

2.2.3 EMISSIONS TO WATER (SURFACE WATER)

Schedule 5(i) **Emission Point SW1**

We monitored weekly for emissions at SW1 as they were available to us - refer to Surface Water Discharge monitoring sheet attached.

Attachments:

Surface Water Annual Report and Trend Analysis 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007 and 2008.

Surface Water Discharge Monitoring - Weekly Data.

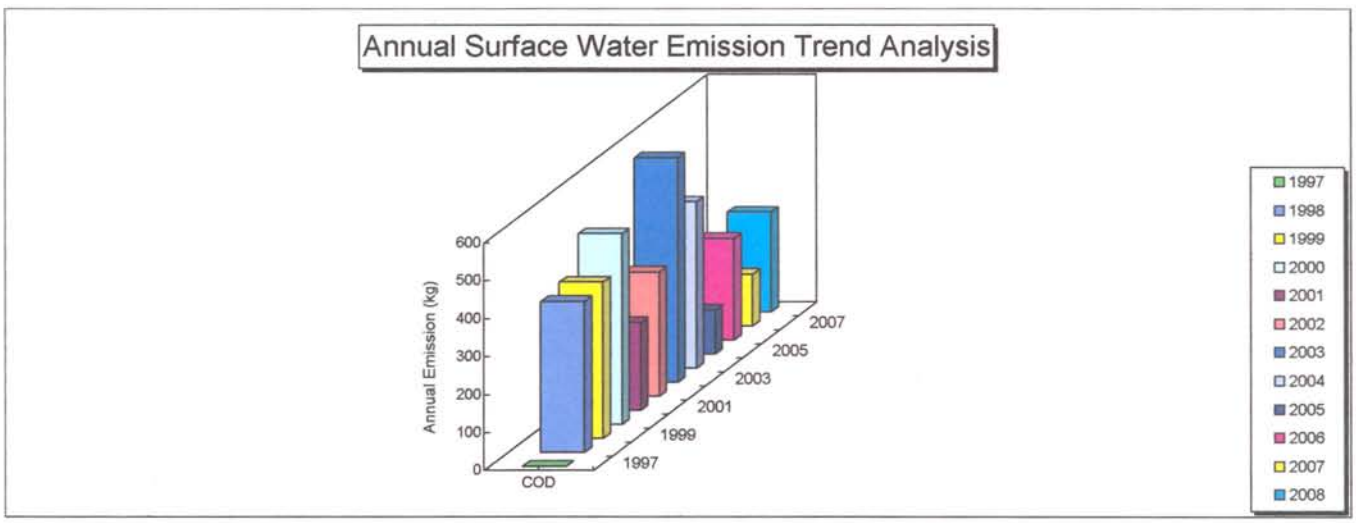
Surface Water Annual Report

Emissions to Surface Water

Parameter		Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
		kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr
pH		-	-	-	-	-	-	-	-	-	-	-	-
Ave COD	(mg/m3)	0	49	53	65	35	31	90	58	17	33	19	29
COD	(kg)	0	397	411	502	230	326	589	438	114	267	136	263
Visual, Odour	Colour and Examination	-	-	-	-	-	-	-	-	-	-	-	-
Volume		0	8165	7753	7732	6609	10405	6548	7550	6691	8104	7151	9065
Area (m2)	6765												
Rainfall (m)		0	1.207	1.146	1.143	0.977	1.538	0.968	1.116	0.989	1.198	1.057	1.34

Calculation based on area covered by outflow SW1and average rainfall

Note: No data for 1997



Parameter		Compliance
		2008
		%
pH		100%
Ave COD	(mg/m3)	
COD		100%
Visual, Odour	Colour and Examination	100%

Details of non compliance

Date	Non-compliance	Cause	Corrective action
	None		

EMISSION POINT : SW1 2008 SCHEDULE 5(i)

MONTH	DATE	PH	COD	TEMP °C	COLOUR	ODOUR	COMMENTS
JANUARY							
	04.01.08						river above outlet
	11.01.08						river above outlet
	18.01.08						river above outlet
	25.01.08						river above outlet
FEBRUARY	01.02.08						no flow
	08.02.08						no flow
	15.02.08	8.2	37	10.3	CLEAR	NONE	
	22.02.08						no flow
	29.02.08						no flow
MARCH	07.03.08						no flow
	14.03.08						no flow
	21.03.08	7.83	25	10.2	CLEAR	NONE	
	28.03.08						no flow
APRIL	04.04.08						no flow
	11.04.08						Hols
	18.04.08						Hols
	25.04.08						no flow
MAY	02.05.08						no flow
	09.05.08						no flow
	16.05.08						river above outlet
	27.05.08	8.12	29	15.5	CLEAR	NONE	no flow
	30.05.08						no flow
JUNE	06.06.08						no flow
	13.06.08						no flow
	20.06.08						no flow
	27.06.08						no flow
JULY	04.07.08						no flow
	11.07.08						no flow
	16.07.08	8.23	41	17.2	Slightly cloudy	none	
	25.07.08						no flow
AUGUST	01.08.08						river above outlet
	08.08.08						Hols
	15.08.08						no flow
	22.08.08	7.77	31	15.7	clear	none	
	29.08.08						no flow
SEPT.	05.09.08						river above outlet
	12.09.08						hols
	19.09.08						no flow
	26.09.08						no flow
OCTOBER	03.10.08	8.12	26	14.7	clear	none	
	10.10.08						no flow
	17.10.08						no flow
	24.10.08						no flow
	31.10.08						no flow
NOVEMBER	07.11.08	7.42	17	11.4	clear	none	
	14.11.08						no flow
	21.11.08						no flow
	28.11.08						river above outlet
DECEMBER	05.12.08						no flow
	12.12.08						no flow
	19.12.08						no flow

2.2.4 EMISSIONS TO AIR

Schedule 1(i) **Emission Point No. V11**

This schedule refers to emissions from our main steam boiler stack.

Attachment:

- Air Emissions Annual Report and Trend Analysis 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007 and 2008.

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Air Emissions Annual Report

Annual Test Figures for Combustion Plant Vent A11
Test : 22/02/2008

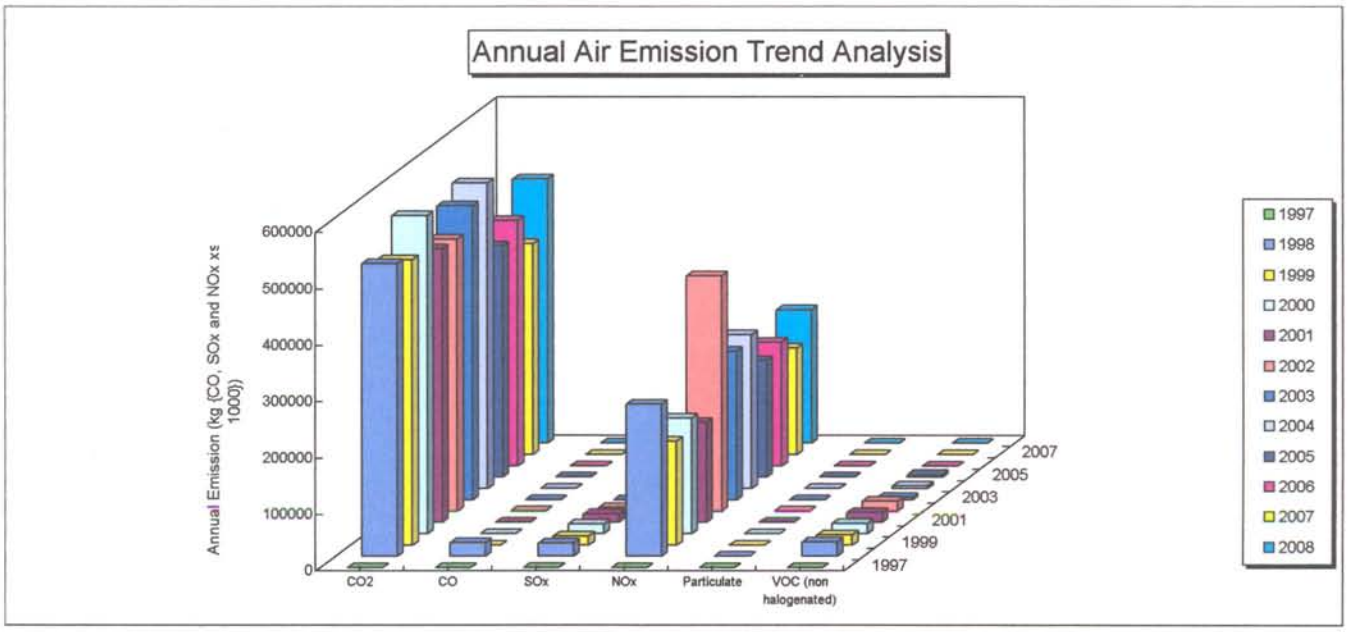
Material	High Fire	Mid Fire	Low Fire	Average
	mg/m3	mg/m3	mg/m3	mg/m3
CO2	7.7%	8.6%	10.1%	8.8%
O2	8.1%	5.7%	3.7%	5.8%
CO	0	0	0	0.0
SOx	0	0	0	0.0
NOx	130	120	132	127.3
Particulate	0	0	0	0
Smoke	OK	OK	OK	OK

Annual Gas Usage

Annual Emissions Report

Material		Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission	Mass Emission
		1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
		kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr	kg per yr
CH4 Usage	m3	0	283045	275528	307327	264502	262668	283934	294851	222841	236877	203349	254811
CH4 Usage	kg	0	188696.67	183685.33	204884.67	176334.67	175112	189289.33	196567.33	148560.67	157918	135566	169874
CO2		0	518915.8	505134.7	563432.8	484920.3	481558.0	520545.7	540560.2	408541.8	434274.5	372806.5	467153.5
CO		0.0	24.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SOx		0.0	22.9	15.0	16.7	14.4	6.2	0.0	0.0	0.0	0.0	0.0	0.0
NOx		0.0	269.9	184.0	205.2	176.6	416.8	263.0	273.2	206.4	219.4	188.4	236.1
Particulate		0	0	0	0	0	0	0	0	0	0	0	0
VOC (non halogenated)		0	25253.0	17533.9	17533.9	17434.1	17778.4	4707.0	4718.0	4235.0	0.0	0.0	0.0
Smoke		OK	OK	OK	OK	OK	OK	OK	OK				

Note : No data for 1997



2.2.5 VOC EMISSIONS - FUGITIVE EMISSIONS

Condition 11.2 of our Licence Reg. No. 218

Releases to air have been calculated by a range of recognised techniques. Measurements have been conducted using static diffusion tubes, pumped absorption tubes and a portable Autofim FID.

Emissions are calculated using US EPA AP42 techniques to give fugitive emissions from:

* Buildings with likely fugitive emissions
* Filling losses from external bulk storage tanks
* Filling losses from external mixing tanks

Attachments
The five pages attached includes the VOC Emission Summary regarding fugitive emissions.

Page 1:	*	Fugitive emissions from buildings/areas with likely fugitive emissions
	*	Extracted vent emissions
Page 2:	*	VOC data
Page 3:	*	Tank Emissions Calculator for bulk storage tanks and external mixing tanks
Page 4:	*	VOC Emission Summary – Total
Page 5:	*	Vapour Pressure Chart Finalan D40 which is similar to White Spirit.

NOTE

Building 23 has been demolished but has been left in the Emission Calculator page for reference.

Fugitive Emission Calculator 2008

Most process plant vents direct into building, emissions calculated using internal concentration measurement and assumed building ventilation rate.

Building Number	Activity (Note1, Note 2)	Building Volume	MEK	TOLUENE	XYLENE	EXXSOL D40
		m3	kg/year	kg/year	kg/year	kg/year
5	UF recovery plant	None, no volatiles in use in building				
13, 1st floor	QC lab & tinting rig (emulsion) + emulsion portable mixing	1680	0.0	0.0	0.0	0.0
16, 1st floor	Emulsion & solvent-based processing	619	0.0	0.0	0.0	0.0
16, top floor	Emulsion & solvent-based processing, bulk tanks, small additions roon	1005	84.1	51.4	0.0	136.7
16, gnd floor	Filling area - emulsion & solvent-based	900	0.0	45.5	22.6	239.1
17	Packaging hall	3395	0.0	171.6	85.3	901.8
17a	Water-based dispersion area	None, no volatiles in use in building				
23, gnd floor	Ballmills & small buffer stock of 200 litre drums	1135	0.0	0.0	0.0	0.0
23, 1st floor	Ballmills & solvent-based portables, tinting rig (solvent-based), beadmi	1107	0.0	0.0	0.0	0.0
23, top floor	Ballmills & high speed Torrances, solvent-based delivery meters	1460	0.0	0.0	0.0	0.0
25	Caustic cleaning area	None, no volatiles in use in building				
38	Solvent still	93	0.0	0.0	0.0	0.0
70	Enclosed tank farm (4 tanks - 1white spirit, 3 latex)	None, external vents				
Total			84.1	268.5	108.0	1277.6

Note 1. These are the areas with likely fugitive emissions
Note 2. All are highlighted on site map
Note 3. Based upon US EPA AP42 Building Bagging Method
Air exchange rate 5 Room volumes per hour
Note 4. Annual operating hours 3000 Hours per year

Building Sample Data 2008

Data measured using static diffusion tubes, pumped adsorption tubes and Autofim FID
Tubes analysed at ICI Paints Slough (UK) Environmental Laboratory which is NAMAS approved
Diffusion tubes converted from ppm to mg/m3
Pumped adsorption tubes quoted direct as mg/m3
Autofim FID converted to mg/m3

SAMPLE DESCRIPTION	TUBE ID	DATE	MEK ppm	TOLUENE ppm	XYLENE ppm	EXXSOL D40 ppm
Conversion Factor (ppm to mg/m3)			3	3.83	4.41	5.37
G/F BLD 23		Demolished	0.0	0.0	0.0	0.0
C/F BLD 23		Demolished	0.0	0.0	0.0	0.0
T/F BLD 23		Demolished	0.0	0.0	0.0	0.0
FIL/BLD 16+17		28-Nov-03	0.0	0.9	0.4	3.3
C/F RMP BLD 16		28-Nov-03	0.0	0.0	0.0	0.0
T/F RMP BLD16		28-Nov-03	1.9	0.9	0.0	1.7
DSTLN BLD 38		Out of service	0.0	0.0	0.0	0.0

Tank Vent Emission Calculator 2008

All bulk storage tanks are either lagged or inside buildings so neglect breathing losses due to changes in ambient temperature and weather conditions as these are likely to be small.

Working losses from fixed roof storage tank using US EPA AP42 guidance for estimating emissions

Top filling

Using method based upon

Gt Total yearly throughput
V Tank capacity
Nt Turnovers per year
From Graph 5.2
Kn Turnover factor = 1 for less than 36 turnovers per year
Kc Product factor = 1 for organic liquids

Bulk Solvent Storage Tanks

Tank Farm	Number	Material	V Capacity litres	Usage litres p.a.	Delivery litres	No Delivery	Nt Turnovers p.a.	Kn T/O Factor	Tf Fill Temp oC	Ts Store Temp oC	Pvap Vap Press D40 kPa	MWt Mol Wt kg/kgmol	Lw kg/year	Exxsol D40 kg/year	Xylene kg/year	Benzyl Alc kg/year
27	227	X101-561	50000	74713	20000	3.7	1.5	1	60	30	1.5	143	5.8	5.7	0.1	0
27	228	X102-537	45000	171542	20000	8.6	3.8	1	60	30	1.5	143	13.3	13.0	0.3	0
27	225	X102-548	45000	177348	20000	8.9	3.9	1	60	30	1.5	143	13.8	13.5	0.3	0
66	267	X101-600	55000	178220	20000	8.9	3.2	1	60	60	3.2	143	29.5	28.9	0.6	0
66	268	X101-600	4500	178220	20000	8.9	39.6	0.8	60	60	3.2	143	29.5	28.9	0.6	0
70	279	Exxsol D40	50000	334897	27000	12.4	6.7	1	15	15	0.4	143	8.0	8.0	0	0
19	283	Benzyl Alc	28000	86789	20000	4.3	3.1	1	15	15	0.013	108	0.1	0.0	0	0.05

External Mixing Tanks

			Mixer Size litres	Production litres	Batch Size litres	Batch / pa	Nt Turnovers p.a.	Kn T/O Factor	Tf Fill Temp oC	Ts Store Temp oC	Pvap Vap Press D40 kPa	MWt Mol Wt kg/kgmol	Lw kg/year	Exxsol D40 kg/year	Xylene kg/year	Benzyl Alc kg/year
68	201	W/G & U/C	5400	155200	4000	39	38.8	1	40	30	1.5	143	17.3	16.9	0.3	
67	202	Undercoat	6800	155200	6000	26	25.9	1	40	30	1.5	143	14.5	14.2	0.3	
67	203	W.Gloss	9000	149600	7500	20	19.9	1	40	30	1.5	143	14.8	14.5	0.3	
67	204	W.Gloss	9000	149600	7500	20	19.9	1	40	30	1.5	143	14.8	14.5	0.3	
Internal	270	Misc.	4500	117200	4000	29	29.3	1	40	30	1.5	143	10.9	10.7	0.2	
Internal	271	Misc.	4500	117200	4000	29	29.3	1	40	30	1.5	143	10.9	10.7	0.2	
Internal	216	Undrecoat	4500	88600	3500	25	25.3	1	40	30	1.5	143	9.4	9.2	0.2	
Internal	217	Gloss	4500	84000	4000	21	21.0	1	40	30	1.5	143	7.8	7.6	0.2	
Total													161.4	158.2	3.1	0.1

All other solvent materials stored in drums

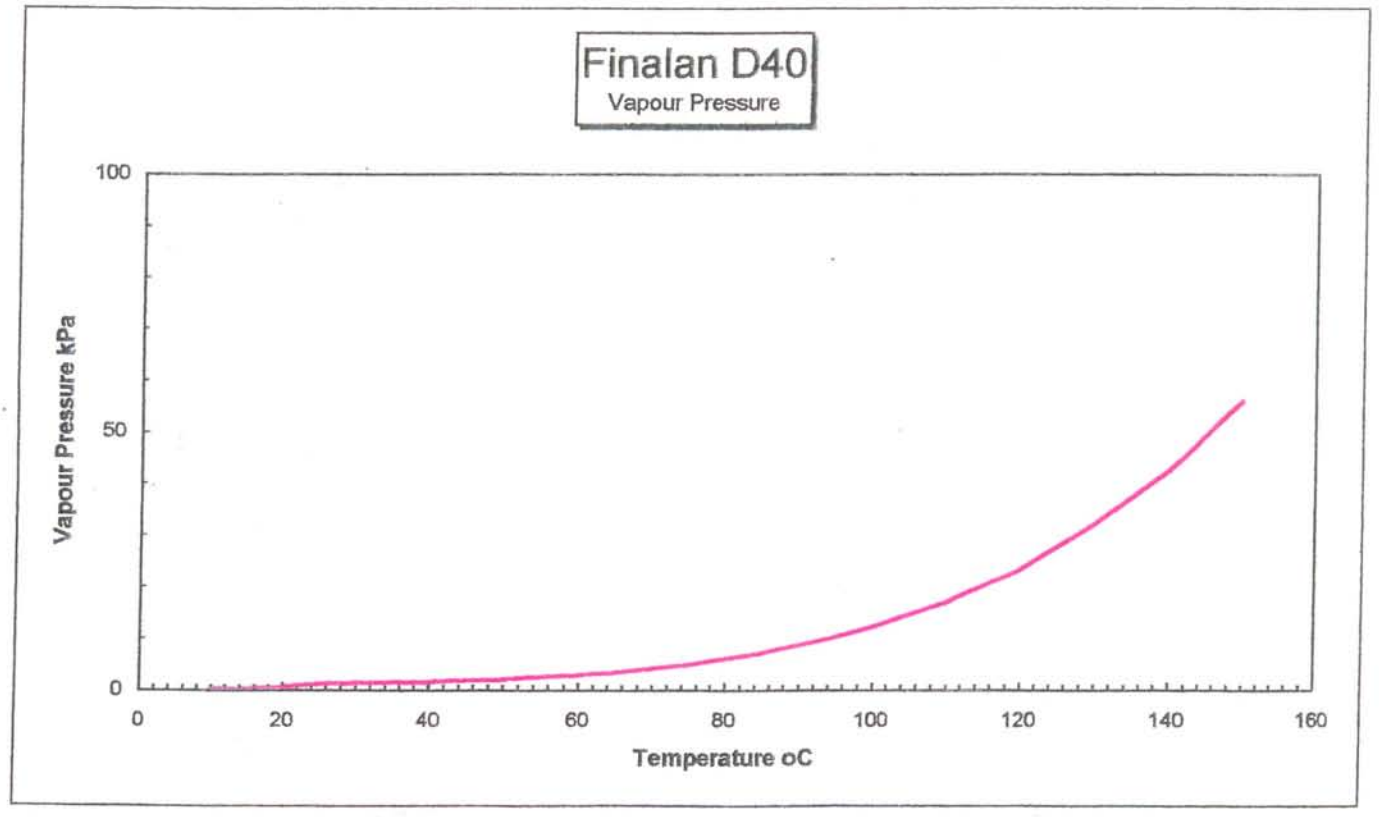
Summary / Total

	L1406 MEK kg/year	L1224 Toluene kg/year	L1230 Xylene kg/year	L1207 Exxsol D40 kg/year	L1093 IPA kg/year	L1073 Butanol kg/year	L1002 Benzyl Alcoh kg/year	Total kg/year
Fugitive	84	269	108	1278	0	0	0	1738
Extracted Vents	0	35	228	277	0	0	0	540
Tank Filling			3	158	0	0	0.1	161
Total Emission	84	304	339	1713	0	0	0.1	2439
Solvent Usage	0	0	20557	555084	0	0	86789	662430
% Emission/Usage	0.0%	0.0%	1.6%	0.3%	0.0%	0.0%	0.0%	0.4%

Vapour Pressure

Exxsol / Finalan D40

Tempurature oC	Exxsol D40 Pressure kPa
10	0.4
15	0.4
20	0.7
25	1.3
30	1.6
35	1.7
37.8	1.7
40	1.9
45	2.2
50	2.4
55	2.8
60	3.2
65	3.7
70	4.4
75	5.2
80	6.3
85	7.4
90	8.9
95	10.4
100	12.4
110	17.1
120	23.4
130	32.1
140	42.7
150	56.2



2.2.6 WASTE MANAGEMENT AND SUMMARY DATA ON WASTES ARISING

In 2008 we took a big step forward in reducing our levels for non-hazardous waste disposal by landfilling off site. We set a target of 0.5% but achieved 0.46%.

Waste targets are expressed as a percentage to date. We have already surpassed our Challenge 2010 target of 0.50%.

1997	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**2005**	**2006**	**2007**	**2008**	**2009**
Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Actual	Target
1.3%	1.2%	1.1%	0.9%	0.8%	0.7%	0.8%	0.6%	0.6%	0.6%	0.51%	0.46%	0.45%

We are members of REPAK and we continue our programme of segregation of paper, cardboard, plastic, hence reducing the quantity of waste for landfilling.

In June 2004 the Company entered into an agreement with Ballygarvan Stone and Paving Co. to recycle water washings in the manufacture of decorative concrete products. This process has been licensed by Cork County Council. We also sent water washings abroad under licence for treatment and disposal. Solvent washings are sold on to recyclers.

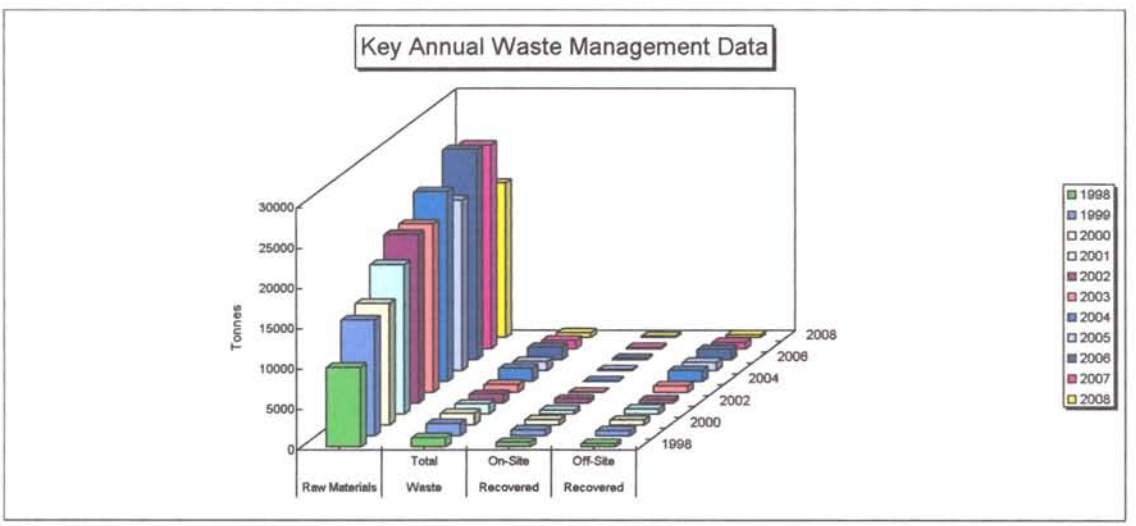
Attachments

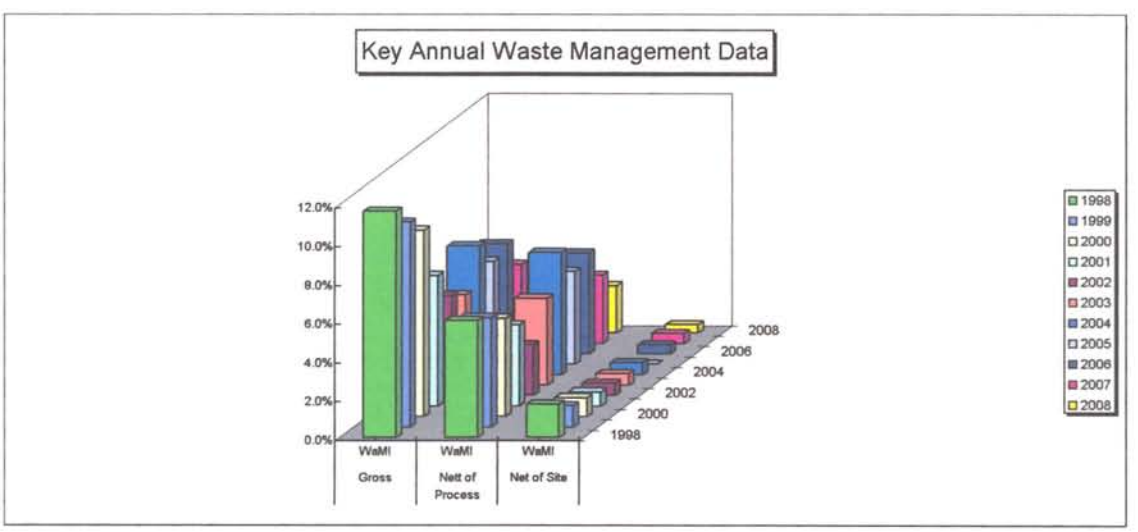
- Information on Waste Streams (see PRTR printout)
- Summary of Waste Streams (see PRTR printout)
- Waste Annual Report

Waste Annual Report

Key Annual Waste Management Data

Year	Raw Materials te	Waste Total te	Recovered On-Site te	Recovered Off-Site te	Disposal On-site	Disposal Off-site	Gross WaMI	Nett of Process WaMI	Net of Site WaMI
1998	9861	1151	555.5	427.5	0	168	11.7%	6.0%	1.7%
1999	14362	1519	709	651	0	159	10.6%	5.6%	1.1%
2000	15083	1451	686	617	0	148	9.6%	5.1%	1.0%
2001	18545	1248	473.2	638.3	0	137	6.7%	4.2%	0.7%
2002	20891	1074	527.5	414	0	133	5.1%	2.6%	0.6%
2003	20856	969	36.0	811	0	122	4.6%	4.5%	0.6%
2004	23474	1555	76.0	1336	0	143	6.6%	6.3%	0.6%
2005	21135	1121	108.0	1013	0	119	5.3%	4.8%	0.0%
2006	25998	1467	120.0	1231	0	115	5.6%	5.2%	0.4%
2007	25205	1022	140.0	757	0	125	4.1%	3.5%	0.5%
2008	19154	627	162.0	383	0	82	3.3%	2.4%	0.4%





2.2.7 ENERGY AND WATER CONSUMPTION

2.2.7 (a) **Energy Consumption**

The consumption of energy relates to:

- Natural Gas
  Now used on the Cork site for the steam boiler and smaller central heating units in place of heavy fuel oil. Conversion took place in 1997.
  In February 2007 our business in Dublin moved to a new premises which has a gas installation thus eliminating the use of gas oil for space heating.

  Largest user is steam boiler. Refer to Resources Annual Report attached.

- Electricity

It is difficult to list the heavy users since we do not have any sub-metering on the site.

- Gas Oil

Is now only used for fork trucks and stand-by generators on the Cork Site. Cork usage has reduced substantially since converting the central heating systems and space heaters to natural gas.

Minimisation Plan

In 1995 we initiated our Challenge 2000 plan to reduce our energy efficiency per tonne of productivity by 10% of the 1995 base level.

This reduction was achieved and is being exceeded as the attachments to this report will indicate.

Challenge 2005 set a reduction target of 15% on 2000 baseline. However, This target was surpassed and we achieved a reduction of 38% you compare the consumption of terrajoules against tonnes of production.

Challenge 2010 is now in place and targets for energy (-5%) and water consumption (-15%) have been set against the 2005 baseline. We are well on our way to achieving these targets.

We report on energy usage for the Cork site and for the combined energy usage for both Cork and Dublin sites.

Summary

The variation in Energy Use report attached will indicate the decrease in energy usage when indexed to TJ's per tonne of production.

2.2.7 (b) WATER CONSUMPTION

The main source of water for the site is from the municipal supply = 15,907M³ in 2008. The main consumers of water are:

- Cooling water for process equipment 601M³ for 2008. This water is discharged to the river at SW2 in full compliance with Schedule 2 (i). Emissions to water parameters relative to maximum in any one day (1000M³) and temperature. The main reason for the big reduction in recent years was the demolition of Building 23.

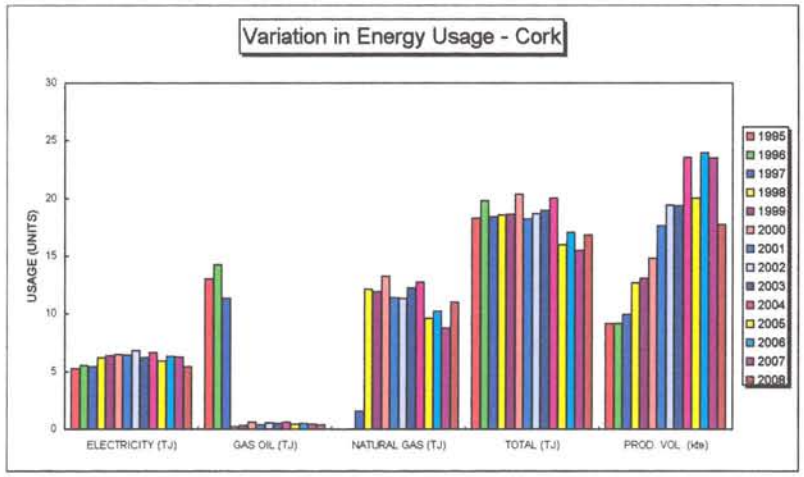
- Process, washing and utility usage for 2008 was 15,306M³ calculated by subtracting cooling water usage from total municipal usage.

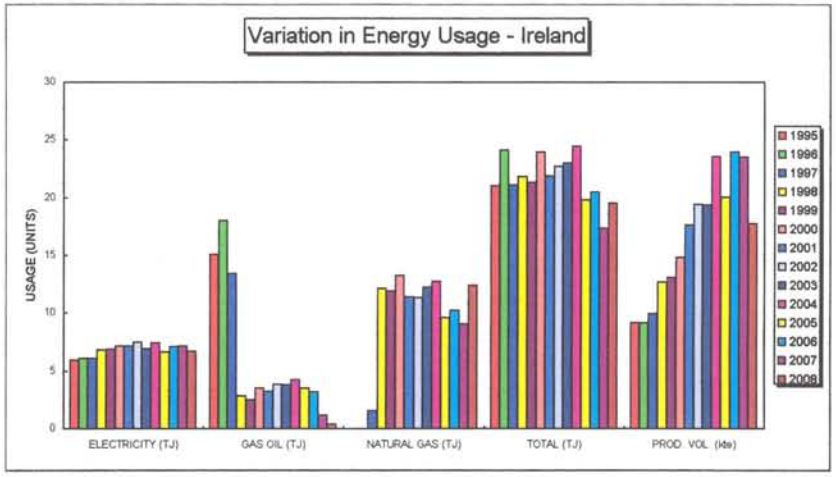
Summary

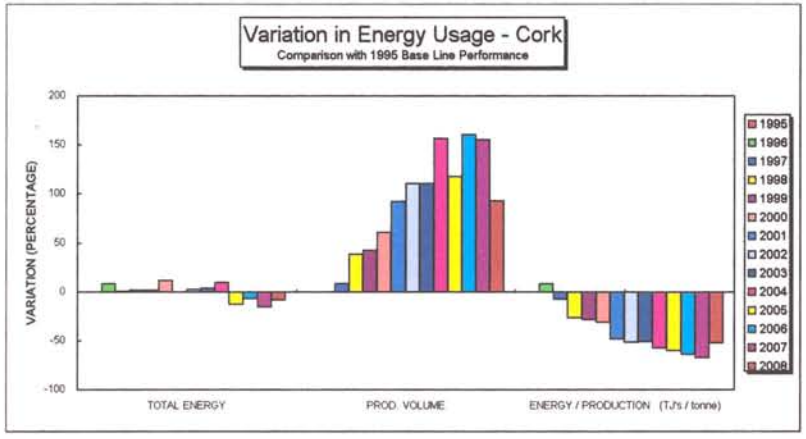
Our water consumption in 2008 was down by 3,529M³ on 2007 usage.

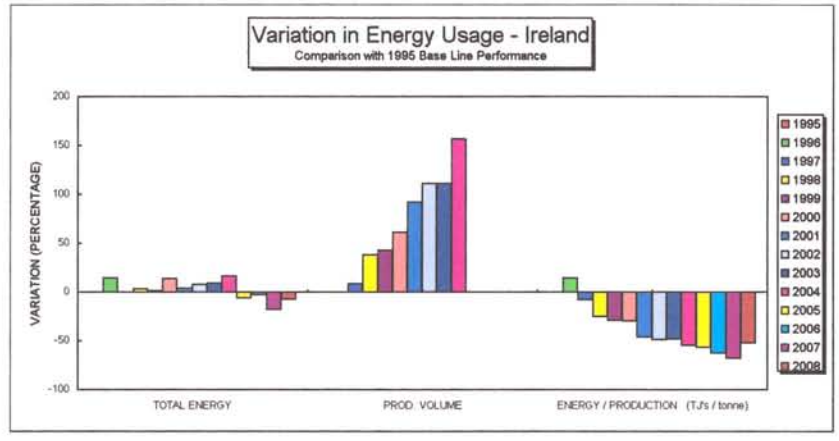
Attachments

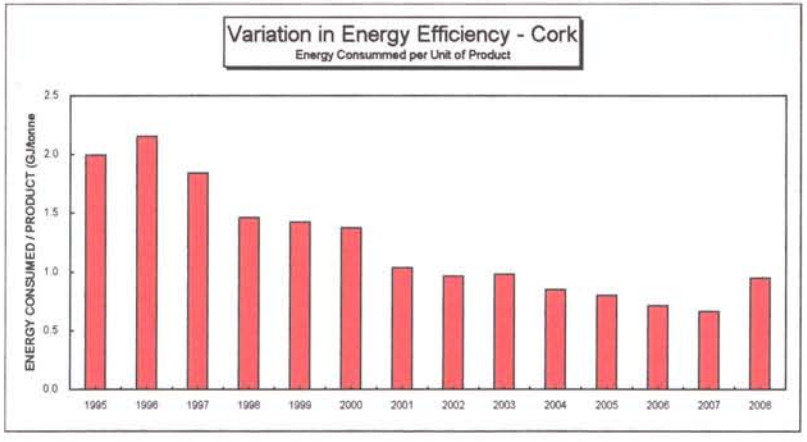
Page 1: Variation in Energy Use
Page 2: Energy Report
Page 3: Resources Annual Report

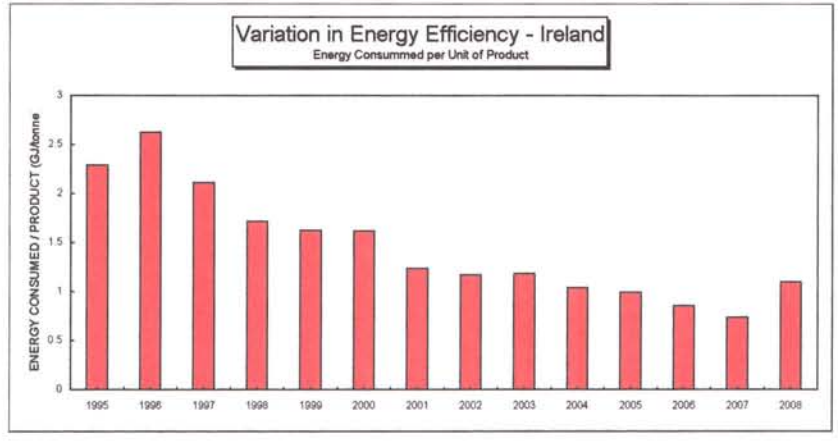

Variation in Energy Usage - Cork
USAGE (UNITS)
ELECTRICITY (TJ)
GAS OIL (TJ)
NATURAL GAS (TJ)
TOTAL (TJ)
PROD. VOL. (kte)
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008


Variation in Energy Usage - Ireland
USAGE (UNITS)
ELECTRICITY (TJ)
GAS OIL (TJ)
NATURAL GAS (TJ)
TOTAL (TJ)
PROD. VOL. (kte)
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008


Variation in Energy Usage - Cork
Comparison with 1995 Base Line Performance
VARIATION (PERCENTAGE)
TOTAL ENERGY
PROD. VOLUME
ENERGY / PRODUCTION (TJ/s / tonne)
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008


Variation in Energy Usage - Ireland
Comparison with 1995 Base Line Performance
VARIATION (PERCENTAGE)
TOTAL ENERGY
PROD. VOLUME
ENERGY / PRODUCTION (TJ/s / tonne)
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008


Variation in Energy Efficiency - Cork
Energy Consummed per Unit of Product
ENERGY CONSUMED / PRODUCT (GJ/tonne
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008

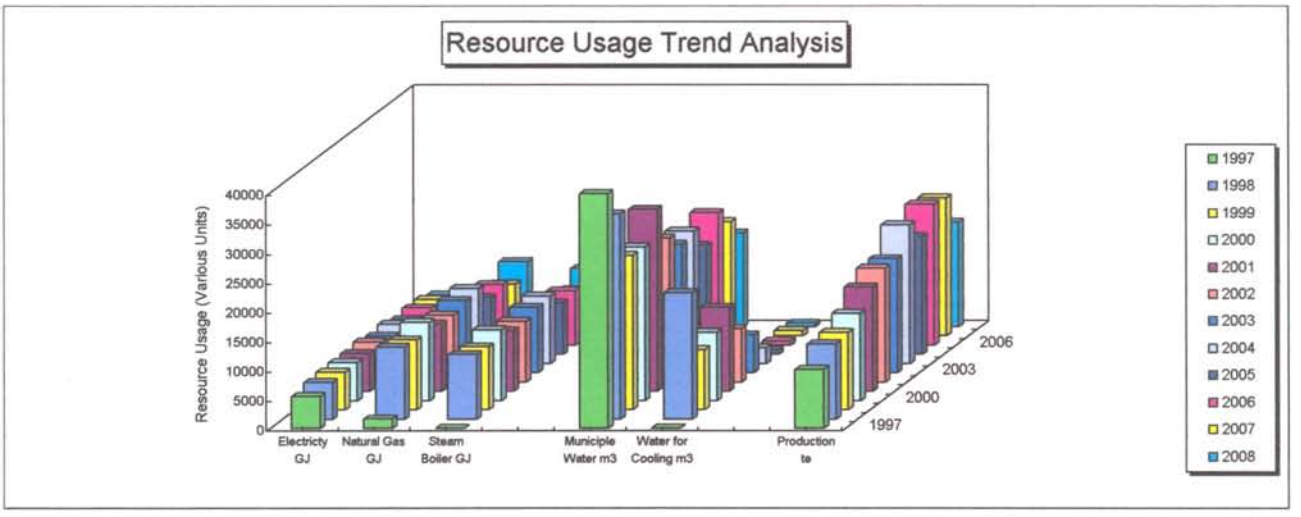

Variation in Energy Efficiency - Ireland
Energy Consummed per Unit of Product
ENERGY CONSUMED / PRODUCT (GJ/tonne
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008

Resources Annual Report

Usage of Resources

Parameter	Usage	Usage	Usage	Usage	Usage	Usage	Usage	Usage	Usage	Usage	Usage	Usage
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
	Units	Units	Units	Units	Units	Units	Units	Units	Units	Units	Units	Units
Electricty GJ	5438	6224	6392	6505	6457	6801	6197	6681.24	5905.44	6325.56	6262.2	5427.36
Natural Gas GJ	1600	12200	11900	13300	11400	11400	12300	12748.803	9635.2271	10242.116	8792.4298	11017.548
Steam Boiler GJ	0	10980	10710	11970	10260	10260	11070	11474	8672	9218	7913	9916
Municiple Water m3	39859	34897	26254	26096	30870	24477	21773	22483	18527	22566	19436	15907
Water for Cooling m3	0	21428	10184	11568	14238	9074	6436	2655	749	612	932	601
Production te	9985	12718	13164	14808	17652	19397	19387	23583	20014	23936	23490	17746
Efficiency of water usage												
Water m3 / te production	3.99	2.74	1.99	1.76	1.75	1.26	1.12	0.95	0.93	0.94	0.83	0.90

Note: Limited data for 1997



ENERGY REPORT -- CORK / DUBLIN

YEAR	ELECTRICITY		GAS OIL		NATURAL GAS			TOTAL	% DIFF.	PROD. VOL.	% DIFF.	TJ's / tonne	% DIFF.
	KWh	TJ	LITRES	TJ	KWh	THERMS	TJ	TJ	vs 1995	TONNES	vs 1995	PROD VOL	vs 1995
1995	1,649,122	5.937	353,576	15.133		0	0	21.070		9,191		0.00229	
1996	1,690,993	6.088	421,727	18.050		0	0	24.137	14.559	9,200	0.098	0.00262	14.447
1997	1,696,594	6.108	313,458	13.416	452,500	15083.33	1.591	21.115	0.214	9,985	8.639	0.00211	-7.755
1998	1,892,682	6.814	66,174	2.832	3,458,500	115283.33	12.16239167	21.808	3.505	12,718	38.374	0.00171	-25.200
1999	1,917,921	6.905	58,197	2.491	3387672	112922.40	11.9133132	21.309	1.133	13,100	42.531	0.00163	-29.045
2000	1,991,251	7.169	82,003	3.510	3778647	125954.90	13.28824195	23.966	13.747	14,808	61.114	0.00162	-29.399
2001	1,991,605	7.170	76,083	3.256	3252105	108403.50	11.43656925	21.863	3.763	17,652	92.057	0.00124	-45.973
2002	2,088,864	7.520	89,967	3.851	3,229,556	107651.87	11.35727193	22.728	7.868	19,397	111.043	0.00117	-48.888
2003	1,923,456	6.924	88,500	3.788	3,491,025	116367.50	12.27677125	22.989	9.108	19,387	110.935	0.00119	-48.274
2004	2,071,914	7.459	99,702	4.267	3625252	120841.73	12.74880287	24.475	16.161	23,583	156.588	0.00104	-54.729
2005	1,845,311	6.643	83,037	3.554	2739875	91329.17	9.635227083	19.832	-5.874	20,014	0.000	0.00099	-56.774
2006	1,970,637	7.094	74,028	3.168	2912450	97081.67	10.24211583	20.505	-2.682	23,936	0.000	0.00086	-62.632
2007	1,982,924	7.139	27,115	1.161	2,572,161	85738.70	9.04543285	17.344	-17.681	23,490	0.000	0.00074	-67.791
2008	1,864,616	6.713	9,505	0.407	3,535,866	117862.20	12.4344621	19.554	-7.195	17,746	0.000	0.00110	-51.935

ENERGY REPORT -- CORK

YEAR	ELECTRICITY		GAS OIL		NATURAL GAS			TOTAL	% DIFF.	PROD. VOL.	% DIFF.	TJ's / tonne	% DIFF.
	KWh	TJ	LITRES	TJ	KWh	THERMS	TJ	TJ	vs 1995	TONNES	vs 1995	PROD VOL	vs 1995
1995	1,467,000	5.281	304,843	13.047		0	0	18.328		9,191		0.00199	
1996	1,536,000	5.530	334,090	14.299		0	0	19.829	8.185	9,200	0.098	0.00216	8.079
1997	1,510,500	5.438	266,117	11.390	452,500	15083.33	1.591	18.419	0.493	9,985	8.639	0.00184	-7.498
1998	1,729,000	6.224	5,032	0.215	3,458,500	115283.33	12.16239167	18.602	1.493	12,718	38.374	0.00146	-26.653
1999	1,775,550	6.392	8,205	0.351	3,387,672	112922.40	11.9133132	18.656	1.789	13,100	42.531	0.00142	-28.584
2000	1,806,850	6.505	14,118	0.604	3,778,649	125954.97	13.28824898	20.397	11.287	14,808	61.114	0.00138	-30.927
2001	1,793,560	6.457	8,629	0.369	3,252,105	108403.50	11.43656925	18.263	-0.359	17,652	92.057	0.00103	-48.119
2002	1,889,100	6.801	12,927	0.553	3,229,556	107651.87	11.35727193	18.711	2.089	19,397	111.043	0.00096	-51.627
2003	1,721,300	6.197	12,200	0.522	3,491,025	116367.50	12.27677125	18.996	3.640	19,387	110.935	0.00098	-50.866
2004	1,855,900	6.681	14,411	0.617	3625252	120841.73	12.74880287	20.047	9.375	23,583	156.588	0.00085	-57.373
2005	1,640,400	5.905	10,605	0.454	2739875	91329.17	9.635227083	15.995	-12.734	20,014	117.757	0.00080	-59.925
2006	1,757,100	6.326	12,250	0.524	2912450	97081.67	10.24211583	17.092	-6.746	23,936	160.429	0.00071	-64.192
2007	1,739,500	6.262	10,915	0.467	2,500,217	83340.57	8.792429783	15.522	-15.313	23,490	155.576	0.00066	-66.864
2008	1,507,600	5.427	9,505	0.407	3,132,952	104431.73	11.01754787	16.852	-8.057	17,746	93.080	0.00095	-52.381

2.2.8 ENVIRONMENTAL INCIDENTS AND COMPLAINTS

Environmental Incidents/Complaints

In 2008 we had no reportable incident / complaint .

ICI DULUX PAINTS IRELAND LTD.

2.2.9 AER SUMMARY OF EMISSIONS

Includes information on Waste Arisings.

Please note: EPA AER worksheets have been uploaded separately on to EAP website – have not been included in this document due to document file size.

2.3.1 Management of the Activity

Condition 2 of our IPPC Licence Reg. No. P0218-01

Condition 2.6 Corrective Action

All non conformances with the specified requirements of our licence are immediately investigated and reported initially verbally to the Agency or to the Local Authority as appropriate and followed by a written report of the incident with corrective actions taken to prevent re-occurance.

The responsibility for initiating all investigations and corrective actions rests with the Site Resources Manager. Substantial corrective actions if necessary would be carried out with board approval.

Condition 2.7 Awareness and Training

A copy of the licence has been issued to all senior managers, department heads and to all relevant personnel whole duties relate to any condition/procedure of the licence.

Persons performing specific functions that have a direct bearing on licence conditions have been made aware or trained to conform with the appropriate activities. "Near Miss" training for new employees includes familiarisation with our IPPC licence, especially the sections most relevant to the operational area of the new employee.

Training records will verify the above.

Condition 2.8 Responsibilities

A list of site contacts (3) have been nominated to be available on site at all times to provide prompt access to EPA personnel as required under Section 13 (i) of the EPA Act 1992.

All site security and reception staff have been notified and appropriate notices are displayed at both locations.

Condition 2.9 Communications

A file for public information concerning environmental performance by the Company is in place and available at all reasonable times.

2.3.3 Environmental Objectives and Targets 2008

	Objectives	Targets
08.01	To continue with waste minimization programme of achieving 0.5% per tonne of production. Objective 2008 is 0.525%	2000 Baseline 0.9% — 2008 Target 0.525% — 2010 Goal 0.5%
08.02	To continue training employees in waste management techniques.	Train employees to further develop their waste minimization techniques through toolbox talks and AKZO sustainability programmes etc. **Project cost: €2K**
08.03	To reduce energy consumption measured Gj/Te production	Install intermittent timers on conveyor systems. Install occupancy light sensors. Carry out air monitoring surveys. Purchase new energy efficient light fittings. **Project cost: €5K**
08.04	Carry out risk assessments, part of ATEX compliance.	Actions have arisen from the risk assessment process which will make the solvent borne process safer and more environmentally friendly. Actions known and plan put in place. **Project cost: €5K**
08.05	To re-cycle process water washings into designated products.	Re-formulate designated products to allow process water washings be re-cycled.
08.06	To clear site of stored process water washings	Clear site of stored process water washings by treatment/disposal abroad under TFS license. **Project cost: €40K**
08.07	To address powder handling issue in the main production area	Form team and get input from operators on how best to handle the different FIBC bags. Establish how best to eliminate the dust and implement the changes. **Project cost: €85K**
08.08	To increase pallet storage capacity in the RMS	Avoid block stacking of powders in the RMS **Project cost: €50K**
08.09	To remove all Finished Goods off yard and store indoors.	To install storage capacity for 650 pallets indoors **Project cost: €100k**
08.10	To re-arrange racking layout in Finished Goods Warehouse	To widen racking to allow storage of larger pallets and increase capacity **Project cost: €200k**

DULUX PAINTS IRELAND .

3.3.2 **Review of Environmental Management Programme 2008**

08.01 This objective of minimizing our waste to 0.525% per tonne of production was achieved.

Project completed

08.02 Waste Sustainability Campaigns and the use of site "Tool Box Talks" were carried out. Waste Minimization team's carried out audits and were involved in practical demonstrations of waste reuse and recyle

Project completed

08.03 Conveyor timers were altered to shut down idle conveyors when not in use. More energy efficient fluorescent lamps were fitted. Heating thermostatic valves were fitted

Project Completed

08.04 Atex 137 audit/report carried out by CDG Engineering consultants – actions to the value of €5k were completed. Project 90% completed

Project carry over to 2009

08.05 Re-formulations were carried out on selected products to allow water more washings be recycled.

Project completed

08.06 Build-up of IBC containers , 50klts of water washings are stored on site and must be disposed of off site in 2009

Project carry over to 2009

08.07 A number of options were pursued to address the powder handling issues in the HSD department. These options covered the installation of Silos, Hopper system, re-engineer the existing equipment and simplify the current layout. The site was not convinced the different options would have eliminated the dust issues and asked for more technical expertise from ICI.Due to the economic down turn and reduction in production activity the issue is not as major as it was in 2007 but nevertheless must be addressed. Additional resource has been made available from Akzonobel to help come to an agreed solution.

Project carry over to 2009

08.08 Study carried out on powder stores layout. Project costed and expenditure proposal put forward to the executive board. Expect sanction in early 2009.

Project carry over 2009

08.09 Due to the downturn in the market and the reduction in stock this project has been put on hold for the foreseeable future.

Project on hold

08.10 Due to the downturn in the market and the reduction in stock this project has been put on hold for the foreseeable future.

Project on hold

2.3.3 Environmental Objectives and Targets 2009

	Objectives	Targets
09.01	To continue with waste minimization programme . Objective 2009 is 0.45%	2000 Baseline 0.9% / 2008 Act 0.46% / 2009 Target 0.45%
09.02	Continue training employees in waste management techniques.	Train employees to further develop their waste minimization techniques through toolbox talks and AKZO sustainability programmes ie. Carry out a "GREEN" week during the year. **Project cost: €2K**
09.03	To reduce energy consumption measured Gj/Te production	Install intermittent timers on agitator systems. Install occupancy light sensors. Carry out air monitoring surveys.Reduce external lighting levels. Purchase new energy efficient light fittings. **Project cost: €5K**
09.04	Install a new Power Factor Correction Unit.	Install a new PFC unit to reduce any wattless consumption of electricity.Saving of €6k/annum **Project cost: €10K**
09.05	To re-cycle process water washings into designated products.	Re-formulate designated products to allow process water washings be re-cycled.
09.06	To clear site of stored process water washings	Clear site of stored process water washings by treatment/disposal abroad under TFS license. **Project cost: €40K**
09.07	To address powder handling issue in the main production area	Form team and get input from operators on how best to handle the different FIBC bags. Establish how best to eliminate the dust and implement the changes. **Project cost: €100K**
09.08	To increase pallet storage capacity in the RMS	Avoid block stacking of powders in the RMS **Project cost: €35K**
09.09	Repair sewer system	Some leakage in sewer system following Test carried out in Nov. 2008. **Project cost: €3K**

Dulux Paints Ireland.

2.3.4 **Environmental objectives and Target 2009**

09.01 **Objective / Target**

The company's aim is to continue to reduce our waste to land fill and surpass our 2010 goal of 0.5% per tonne of production. Our target for 2009 is 0.45% per tonne of production.

09.02 **Objective / Target**

As waste reduces it gets more difficult to achieve the targets that are set. In order to achieve these targets it is necessary to train employees in waste reduction, re-use and re-cycling techniques. This will be an on-going process throughout the year. We will use tool box talks and other training tools available from Akzonobel- ie. “Green Team” involvement.

Project cost: €4K

09.03 **Objective / Target**

Energy conservation and reduction is a major concern for industry as fuel costs escalate at enormous rates. An energy audit has been carried out to identify areas where actions can be taken to reduce the company dependence on Electricity, Gas and Water. These recommendations consist of changing to more efficient light fittings {High Frequency}, air leak monitoring, installation of occupancy sensors and the resetting of conveyor timeout sensors also yard lighting will be cut back to safe working levels.

Project cost: €5k

09.04 **Objective / Target**

A new 189KV Ar automatic Power Factor Correction Panel will be installed and fed from a spare switch fuse. The regulator on this panel will be utilized to automatically switch the capacitor steps, incorporating them into the overall control, which will increase the Power Factor to 0.98, thereby reducing the equipment {motors} efficiency losses by 10%. This has been verified by a survey and consequently the electrical distributor has determined that we would save €6k/yr. by reducing the maximum required current needed for the site.

Project cost: €5K

09.05 **Objective / Target**

As part of our re-evaluation of the process water washings, our technical staff examined the possibility of using more of the process water washings in product manufacture. The analysis proved successful and more products have been identified due to the increase in portfolio of products since the AKZONOBEL takeover. These products will be re-formulated to incorporate some process water washings. This practice is carried out right across Akzonobel factories.

09.06 **Objective / Target**

There exists a limited outlet for process water washings during 2007/8. There has been a build-up on site of intermediate bulk containers (IBC's) containing the process water washings. It is the company's intention to remove same off site, for treatment / disposal abroad, by an approved contractor under TFS licence.

Project cost: €40K

09.07 **Objective / Target**

A problem with powder handling has surfaced in the main high speed dispersion department. The existing powder handling equipment is struggling to contain and dispense the powder in an acceptable manner. A team will be formed to study the existing operation and come up with proposals on how best to handle and dispense the different powders from FIBC bags into the dispersers.

Project cost: €100K

09.08 **Objective / Target**

A study will take place on pallet racking in the Raw Material Stores to examine best practice on layout, to allow stock rotation and cycle counting.

Project cost: €35k

09.09 **Objective / Target**

A test of sewer system took place in 2008 and seepage in one section was discovered. This will be repaired in 2009.

Project cost: €3K

2.3.5 POLLUTION EMISSION REGISTER (PER)

Condition 2.4.1 of our Licence Reg. No 218

The following 8 chemicals have been proposed for PER evaluation:

1. Exxsol D40
2. Toluene
3. Xylene
4. Algon P/SR 1225 Biocide
5. Acticide CHR0107 Biocide
6. Metacide 300 Biocide
7. Konservan Biocide
8. Preventol A45 Fungicide

The PER for each of the above chemicals has been produced from a range of data and techniques. Some of the background to this data is included in this note to better explain our methods.

Raw Material Inputs
Using our purchasing records we are able to calculate raw material input.
Using our Technical data base we are able to break back bought in intermediates, such as resins, to give their contribution to the PER for each compound. Raw material stocks are tightly controlled so any changes to on site inventory will be small and not have been neglected from these calculations.

Releases to Air
The releases to air have been calculated by a range of recognised techniques. Measurements have been conducted using static diffusion tubes, pumped absorption tubes and a portable Autofim FID. Emissions are calculated using US EPA AP42 techniques to give fugitive emissions from buildings, filling losses from external tanks and extract vent losses from forced extraction systems.

The material listed as 4 to 8 are all biocides and are considered non volatile. Hence they have a zero value for their release to atmoshpere.

Releases to Effluent
All liquid process wastes were sent for recovery, hence this is a zero response.

Releases to Waste
All liquid process wastes were sent for recovery, hence this is a zero response. No liquid waste has left the site for landfilling since 1994.

Product Output
The product output is calculated by mass balance. We are obliged to use this method due to the large range of products and pack sizes manufactured on this site. We produce four main brands and a large number of auxiliary product ranges in all totalling approx. 1700 different stock units. With individual variations in batch formulations and contributions from bought-in intermediates it would be very difficult to break back this data to give a direct measure of the amount of each PER compound in the final product.

Recovery Output
In 2008 no water washings were removed off site under TFS licence for treatment/recovery abroad. In July of 2004 the company entered into an agreement with a local decorative concrete products manufacturer to incorporate water washings in the in the manufacture of same. However, with the downturn in the construction industry and the inevitable reduction in paint manufacture no water washings were recycled in this way in 2008. 162M³ of water washings were recycled back into our manufacturing process.
Solvent washings and paint drainings from process equipment is also sold off to paint recyclers. 16K litres fell into this category in 2008.

Treated Output
There is no treatment plant on the site, hence a zero response.

Some biocide may be consumed as part of its normal function within the paint during the manufacture of the final product. This stays with final product and is not accounted for in these calculations.

Unaccounted Output
This has been assumed to be zero. Because our technique of calculating the amount of each compound leaving the site in the produce uses the mass balance we are unable to calculate the unaccounted output as a separate item.

The PER and Fugitive Emissions Evaluation are closely linked in that solvent emissions are measured by using static diffusion tubes, pumped absorption tubes and a portable Autofim FID.

Attachments

PER - Pollution Emissions Register Form 2008

Facility Identification

Facility Name	ICI Dulux Paints Ireland, Shandon Works, Cork
IPC Register No	218
National Grid Reference	1670E,7400N
Reporting Period	Jan-08 to Dec-08
Production Amount	17746 te
Employee No	153

Pollutants Summary

No	Material	CAS No	Input	Gross Usage	Output Air	MOM	Output Liquid Effluent	MOM	Output Waste	MOM	Output Product	MOM	Output Recovery	MOM	Output Treated	Output Unaccount	EPIndex IGEE	EPIndex INEE
1	Exxsol D40	64742-48-9	555084	555084	1713	M/E	---	---	---	---	553371	B	0	M/E	---	---	0.3%	0.3%
2	Toluene	108-88-3	0	0	304	M/E	---	---	---	---	-304	B	0	M/E	---	---	#DIV/0!	#DIV/0!
3	Xylene	1330-20-7	20557	20557	339	M/E	---	---	---	---	20218	B	0	M/E	---	---	1.6%	1.6%
4	Algon P / SR 1225 Biocide	*	0	0	---	---	---	---	---	---	0	B	0	M/E	---	---	#DIV/0!	#DIV/0!
5	Acticide CHR0107 Biocide	*	28689	28719	---	---	---	---	---	---	28719	B	0	M/E	---	---	0.0%	0.0%
6	Metacide 300 Biocide	*	0	0	---	---	---	---	---	---	0	B	0	M/E	---	---	0.0%	0.0%
7	Konservan Biocide	*	9259	9268	---	---	---	---	---	---	9268	B	0	M/E	---	---	0.0%	0.0%
8	Prevental A45 Fungicide	*	0	0	---	---	---	---	---	---	0	B	0	M/E	---	---	#DIV/0!	#DIV/0!

* Preparations, not substances

All units in kg

MOM - Method of measurement

M - Direct Measurement
E - Engineering Estimate
B - Material Balance
O - Other

Mass Balance 2008

Mass balance based upon mixture of measured, estimated and numerical sources

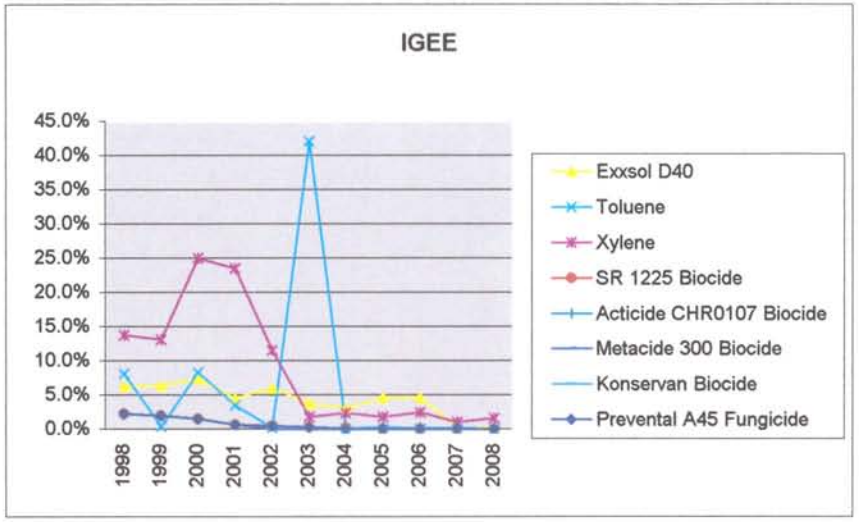
No	Material	CAS No	Input Pure	Input Component	Input Recycled	Gross Usage	Output Air Fugitive	MOM	Output Air Tanks	MOM	Output Air Extract	MOM	Output Air Total	Output Liquid Effluent	MOM
1	EXXSOL D40	64742-48-9	334897	220187	0.0	555084	1278	M	158	E	277	M	1713	---	---
2	TOLUENE	108-88-3	0	0	0.0	0	269	M	---	E	35	M	304	---	---
3	XYLENE	1330-20-7	8877	11680	0.0	20557	108	M	3	E	228	M	339	---	---
4	SR1225 BIOCIDE / Algon P	*	0	0	0.0	0	---	---	---	---	---	---	0	---	---
5	PRODUCT V189 BIOCIDE / Acticide	*	24214	4475	25.4	28715	---	---	---	---	---	---	0	---	---
6	METACIDE 300 BIOCIDE / ROCIMA GT	*	0	0	0.0	0	---	---	---	---	---	---	0	---	---
7	SR1138 BIOCIDE / Konservan / Mergal 728s	*	9259	0	8.2	9267	---	---	---	---	---	---	0	---	---
8	PREVENTOL A4S FUNGICIDE	*	0	0	0.0	0	---	---	---	---	---	---	0	---	---

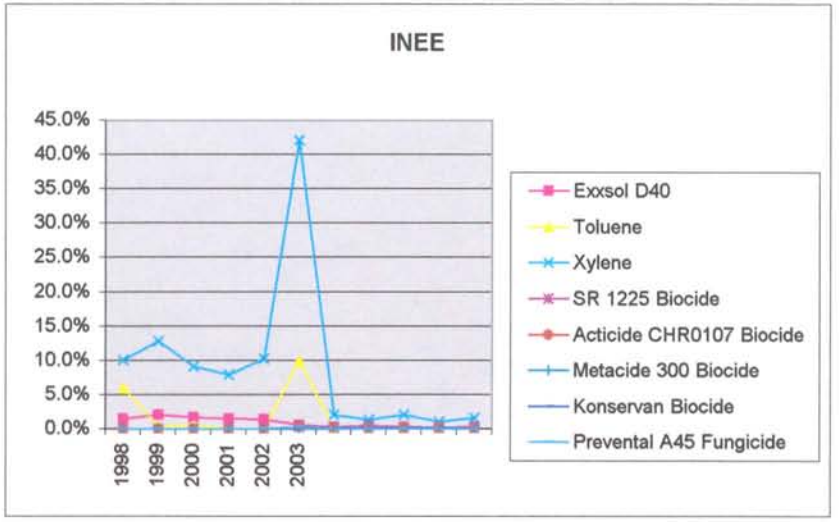
No	Material	CAS No	Output Waste	MOM	Output Product	MOM	Output Recovery Product	MOM	Output Recovery Recycle	MOM	Output Recovery Total	Output Treated	Output Unaccount
1	EXXSOL D40	64742-48-9	---	---	553371	B	0	M/E	0	M/E	0	0	---
2	TOLUENE	108-88-3	---	---	-304	B	0	M/E	---	---	0	0	---
3	XYLENE	1330-20-7	---	---	20218	B	0	M/E	0	M/E	0	0	---
4	SR1225 BIOCIDE / Algon P	*	---	---	0	B	0	M/E	0	M/E	0	0	---
5	PRODUCT V189 BIOCIDE / Acticide	*	---	---	28715	B	0	M/E	0	M/E	0	34	---
6	METACIDE 300 BIOCIDE / ROCIMA GT	*	---	---	0	B	0	M/E	0	M/E	0	0	---
7	SR1138 BIOCIDE / Konservan / Mergal 728s	*	---	---	9267	B	0	M/E	0	M/E	0	11	---
8	PREVENTOL A4S FUNGICIDE	*	---	---	0	B	0	M/E	0	M/E	0	0	---

No	Material	CAS No	Gross Usage	Gross Process Waste	Nett Process Waste	EPIndex IGEE	EPIndex INEE
1	EXXSOL D40	64742-48-9	555084	1713	1713	0.3%	0.3%
2	TOLUENE	108-88-3	0	304	304	#DIV/0!	#DIV/0!
3	XYLENE	1330-20-7	20557	339	339	1.6%	1.6%
4	SR1225 BIOCIDE / Algon P	*	0	0	0	#DIV/0!	#DIV/0!
5	PRODUCT V189 BIOCIDE / Acticide	*	28715	34	34	0.1%	0.1%
6	METACIDE 300 BIOCIDE / ROCIMA GT	*	0	0	0	#DIV/0!	#DIV/0!
7	SR1138 BIOCIDE / Konservan / Mergal 728s	*	9267	11	11	0.1%	0.1%
8	PREVENTOL A4S FUNGICIDE	*	0	0	0	#DIV/0!	#DIV/0!

* Preparations, not substances

All units in kg


IGEE
45.0%
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
Exxsol D40
Toluene
Xylene
SR 1225 Biocide
Acticide CHR0107 Biocide
Metacide 300 Biocide
Konservan Biocide
Prevental A45 Fungicide


INEE
45.0%
40.0%
35.0%
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
1998
1999
2000
2001
2002
2003
Exxsol D40
Toluene
Xylene
SR 1225 Biocide
Acticide CHR0107 Biocide
Metacide 300 Biocide
Konservan Biocide
Prevental A45 Fungicide

Raw Materials

2008

These raw materials are known to contain materials relevant to the PER
Materials known to contain PER are also broken back to give the PER components

CODE	PRODUCT	2008 USAGES	UNITS	Exxsol D40 %	Exxsol D40 kg	XYLENE %	XYLENE kg	TOLUENE %	TOLUENE kg	BENZALC %	BENZALC kg	BIOCIDE %	BIOCIDE Mixed kg	BIOCIDE %	BIOCIDE CHR0107 kg	BIOCIDE Total kg
D0603	ZIRCONIUM 18%	4654	K	44%	2048											
D0604	HARCAT ZINC NAPHTHENATE 12'	0	K	40%												
D0645	COLBALT 10%	3421	K	40%	1368											
D0647	DRIER 2903															
D0689	DRIER	4	K	52%	2											
D0660	CALCIUM 10%/SOL. CALCIUM 10%	0	K	52%	0											
D0628	10% MANAGNESE DRIERS	6	K	30.5%	2											
L1002	BENZYL ALCOHOL	86789	K							100.0%	86789					
L1073	BUTANOL	0	K													
L1093	IPA	0	K													
L1207	EXXSOL D40	334897	L	100%	334897											
L1216	EXXSOL D80	624	L	100%	624											
L1222	EXXSOL D60	561	L	100%	561											
L1224	TOLUENE	0	L					100%	0							
L1230	XYLENE	10203	L			100%	8877									
L1406	MEK	0	K													
R3268	BEETLE RESIN BE 660	0	K			27%										
R3411	SUPERGELKYD 391W	0	K	45%												
R3607	RESIN 102-714	0	K	36.2%	0											
R3643	URANOX	0	K	40.0%												
R5515	K9121	2528	K	50.0%	1264	4%	88									
R8472	RESIN 200-609	760	K	30%	228											
R8488	RESIN 102-65	0	K	37%												
R8506	RESIN 201-812	3030	K	23%	697											
X101-373	RESIN 101-373 / 101-561	74713	K	39%	29138	3%	1625									
X101-394	RESIN 101-394	15117	K	20.6%	3114	4%	566									
X101-400	RESIN 101-400 / 101-600	178220	K	46.5%	82872	1%	1194									
X101-507	RESIN 101-507	1960	K	37.5%	735	3%	43									
X102-428	RESIN 102-428	0	K	30%	0	3%	0									
X102-499	RESIN 102-499	681	K	37.3%	254	3%	15									
X102-537	RESIN 102-537	171542	K	22.6%	38768	2%	3283									
X102-548	RESIN 102-548	177348	K	32%	56751	3%	4166									
X102-930	RESIN 102-930	7890	K	22.3%	1759	3%	185									
X190-165	RESIN 190-165	0	K	58%	0											
X190-170	RESIN 190-170	106	K			42%	39									
X190-172	RESIN 190-172	1338	K			41%	477									
X480-39	RESIN 480-39/40	0	K	33%	0											
Z428A / Z4937	SR1225 BIOCIDE / Algon P	0	K									100%	0			0.00%
Z4395	PRODUCT V189 BIOCIDE / **Acticide CHR0107**	24214	K											100%	24214	75.60%
Z4959	METACIDE 300 BIOCIDE / ROCIMA GT	0	K									100%	0			0.00%
Z971E / Z4555/ Z4818	SR1138 BIOCIDE / Konservan / **Mergal 728s**	9259	K									100%	9259			24.40%
Z9949	PREVENTOL A4S FUNGICIDE	0	K									100%	0			0.00%
X935-1004 X935-1040	X935-1004 X935-1040	2170780	K											0.2%	3256.17	
X935-1035 X935-1038	X935-1035 X935-1038	3235	K											0.6%	19.41	
X571-532 R321H	Spindrift Rhodopas	27142	K											0.83%	225.2786	
X571-532 R3537	X935-19 Primal EP2596E	14430	K											0.1%	14.43	
X935-25 X935-26	X935-25 X935-26	0	K											0.2%	0	
X935-1016	I 935-1016/1042	0	K											0.3%	0	
X935-1031 R9858	X935-1031/1040 (see above) Maincote HG86ER	0	K											0.2%	0	
R3019	ROPAQUE OP 62	0	K											0.2%	0	
R328C R8641	ROPAQUE OP 96 ULTRA	480009	K											0.2%	960.018	
SUB TOTAL PURE MATERIAL			K		334897		8877		0		86789		9259		24214	
SUB TOTAL COMPONENT PART			K		220187		11680		0		0		0		4475	
TOTAL		738326	K		555084		20557		0		86789		9259		28689	37948

Recycling 2008

Material recovered on site for recycling or sale as secondary product

Solvent Recovery		
Recycled Recovered D40	0	litres
Xylene in Recovered D40	0	litres
Paint Sludge Paint sold	0	litres
Solids	0%	
D40 in Paint Sludge	0	litres
Xylene in Paint Sludge	0	litres
Solvent Sold		
D40 Washings Sold	0	litres
Xylene in Washings Sold	0.0	litres
Mixed Washings Sold	0	litres
Xylene	80%	
Toluene	20%	
Xylene	0	litres
Toluene	0	litres
Recycled wash water		
Wash water recycled*	162000	kg
Wash water solids	6%	
Paint recycled	19440	kg
Average Paint Biocide	0.2%	
Biocide in Recycled Water	39	kg
Segregated for Alternative Use		
Wash Water	0	kg
Wash water solids	6%	
Paint	0	kg
Average Paint Biocide	0.2%	
Biocide in Water	0	kg
Plant drainings	0	kg
Drainings solids	50%	
Paint recycled	0	kg
Average Paint Biocide	0.2%	
Biocide in Recycled Water	0	kg
Total Biocide	0	kg

2.3.6 SPENDING ON ENVIRONMENTAL PROTECTION

	€
Training courses/seminars	800
Testing/monitoring equipment	2,468
Annual licences fees: EPA/Local Authority	6,853
Other Environmental Projects	17,000
TOTAL	27,121

2.4 LICENCE SPECIFIC REPORTS

2.4.1 Noise Survey

2.4.2 Bund Testing

2.4.3 Inspection for leaks on all flanges and pipelines

2.4.4 Residuals Management Plan

2.4.5 Toxicity Testing

2.4.1 NOISE

Condition 9 of our IPC Licence Reg. No. 218

In Section 16 of our licence application we outlined the noise emissions monitored at four (4) locations on our site boundary: N1, N2, N3, and N4 which are locations nearest to our residential and industrial neighbours.

There is no noise emanating from the N2 and N3. That leaves N1 and N4 which are locations nearest to our residential and industrial neighbours.

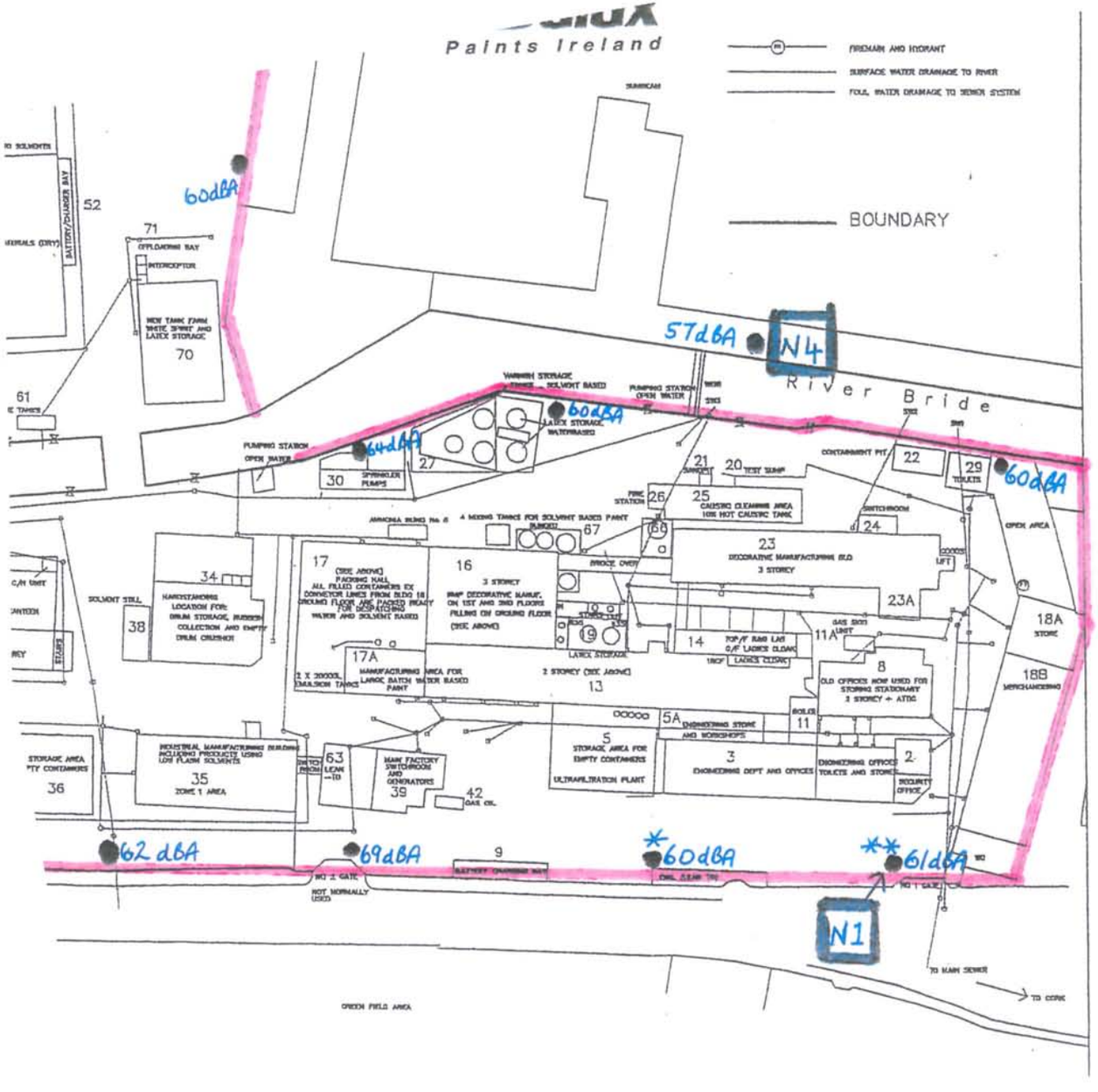
In Q1 2004 we conducted another noise survey at N1 and N4 and other selected points at the site perimeter. You will see from the findings that they are similar to those taken previously and verifies that the main source of noise at our site boundary is road traffic.

Conclusion:

We are in full compliance with Condition 9 and certain that the road traffic is the prime source of noise at and outside our boundary.

Attachment:

We attach drawing 16A for reference purposes only.



NOISE SURVEY CARRIED OUT AT PERIMETER OF SITE AT POINTS LIK TO AFFECT OUR NEAREST NEIGHBOURS

THE SURVEY WAS CONDUCTED BETWEEN 3.00PM AND 4.00PM WHEN MACHINERY WOULD HAVE BEEN OPERATING AT OPTIMUM LEVELS

* ROAD TRAFFIC AT THIS POINT INCREASED THE NOISE LEVEL TO 68 - 70 Dba.

** ROAD TRAFFIC AT THIS POINT INCREASED THE NOISE LEVEL TO 75 - 80 dBA

2.4.2 BUND TESTING

In compliance with Condition 10.4.1 of our licence we submitted an integrity survey of our site bunds and drum parks to the Agency in January 1998.

A survey was carried out in March 2002.

Most recently an independent survey was carried out in 2007 by a civil engineering company and the report is included as Appendix II in the 2007 AER.

We operate a weekly inspection of all site bunds. They are checked for leaks, damage and for contaminated/uncontaminated water.

The discharge of such liquid is subject to a special procedure, which includes a regime of testing.

2.4.3 INSPECTION FOR LEAKS ON ALL FLANGES, VALVES AND PIPELINES

In compliance with Condition 10.4.4 we carry out weekly inspections on all pipelines used to carry materials other than water. Results are recorded weekly.

We have no underground tanks or pipelines on the site.

The weekly inspection schedule is important in that it does prevent a drip form becoming a leak by urgent maintenance.

2.4.4 RESIDUALS MANAGEMENT PLAN

We continue to obtain good results from laboratory analysis of groundwater samples from GW1, GW2 and GW3. Analysis was carried out in 2008 and results are included in the appendices to this report.

In accordance with Condition 10.4.3 of our licence we carried out an inspection and hydraulic test on SE1 sewer/foul drain system in November 1999. This inspection was carried out in 2008.

Since the demolition of our solvent borne building (Bldg 23) in 2005, one section of our foul system has now become defunct. We contracted Joseph Lane and Sons to carry out an inspection on the one foul leg/system that is left. This work was carried out in November 2008. Actions arising are included in the objectives for 2009. (See Appendix II attached)

2.4.5 TOXICITY TESTING

Schedule 3 (i) and 3 (ii) Emissions to Sewer calls for toxicity testing of our trade effluent discharged to sewer. The Emissions Limit Value is 25 TU.

With the Agency's agreement dated 08/04/99, we have carried out Microtox analysis of the effluent instead of the full Toxicity testing. Since then all tests indicate that toxicity levels are within the parameters set out in our IPC licence.

The results of the analysis are included in Appendix I .

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 106T

T.E. LABORATORIES LIMITED
Trading as
TelLab

Tullow Industrial Estate, Tullow, Co. Carlow
Phone: 059-9152881 Fax: 059-9152886

CERTIFICATE OF ANALYSIS

Page 1 of 5

Project Description:	Analysis of Aqueous Samples		
Attention:	Mr. John O'Connell	**Lab ID:**	72814 - 72817
Company:	Dulux Paints Ireland Ltd.	**Date Sampled:**	12.06.2008
Address:	Shandon Works Commons Road, PO Box 45 Cork		
Certificate No:	L/08/1474	**Date Rec'd:**	13.06.2008
Issue Date:	11.07.2008	**Our Ref:**	WS-21662, R08/8009 & AL-80068620/S/0/1

Project Summary: Four samples were analysed for a range of determinands. Please see page 2-5 for results. Terms & Conditions and methods used are outlined in the attached appendix.

No. of Pages: Results page 2-5 plus 4 page appendix

Mr Mark Bowkett
Chief Executive

Breda Moore

Ms Breda Moore
Technical Manager

TelLab

ANALYSIS OF AQUEOUS SAMPLES.

Date sampled: 12.06.2008
Date rec'd: 13.06.2008
Date Analysis Commenced: 13.06.2008
Our ref: WS-21662, R08/8009 & AL-80068620/S/0/1
Certificate No: L/08/1474

Determinand	SE1 72817
BOD	3
Cadmium	<0.03
Chromium	<0.05
COD	<4
Copper	<0.05
Detergents as MBAS	<0.05
Iron	0.42
Lead	<0.20
Manganese	<0.03
Oils, Fats & Greases	18
pH	7.8
Sulphate	40
Zinc	0.21
Microtoxins	##
VOC's	##

Analysis of metals are performed on the filtered sample
Please see attached.

Results expressed as mg/l (ppm)
unless otherwise stated

** = INAB Accredited Tests ++ = Subcontracted Tests n/a = Non-INAB Accredited Tests

The above results relate only to the sample tested
This report should not be regenerated except in full and with the consent of T.E. Laboratories Ltd.

ANALYSIS OF AQUEOUS SAMPLES.

Date sampled: 12.06.2008
Date rec'd: 13.06.2008
Date Analysis Commenced: 13.06.2008
Our ref: WS-21662, R08/8009 & AL-80068620/S/0/1
Certificate No: L/08/1474

Volatile Organic Compounds ++

Determinand	Sample ID / Lab ID	GW1 Stream 72814	GW2 Well 72815	GW3 Borehole 72816	SE1 72817
Dichlorodifluoromethane		<1	<1	<1	<1
Chloromethane		<1	<1	<1	<1
Vinyl chloride		<1	<1	<1	<1
Bromomethane		<1	<1	<1	<1
Chloroethane		<1	<1	<1	<1
Trichlorofluoromethane		<1	<1	<1	<1
1,1-Dichloroethene		<1	<1	<1	<1
Methylene chloride		<10	<10	<10	<10
trans-1,2-Dichloroethene		<1	<1	<1	<1
1,1-Dichloroethane		<1	<1	<1	<1
cis-1,2-Dichloroethene		<1	<1	<1	<1
Bromochloromethane		<1	<1	<1	<1
Chloroform		<1	<1	<1	<1
1,1,1-Trichloroethane		<1	<1	<1	<1
Carbon tetrachloride		<1	<1	<1	<1
1,1-Dichloropropene		<1	<1	<1	<1
Benzene		<1	<1	<1	<1
1,2-Dichloroethane		<1	<1	<1	<1
Trichloroethene		<1	<1	<1	<1
1,2-Dichloropropane		<100	<100	<100	<100
Dibromomethane		<1	<1	<1	<1
Bromodichloromethane		<1	<1	<1	<1
cis-1,3-Dichloropropene		<1	<1	<1	<1
Toluene		<1	<1	<1	<1
trans-1,3-Dichloropropene		<1	<1	<1	<1
1,1,2-Trichloroethane		<1	<1	<1	<1
Tetrachloroethene		<1	<1	<1	<1
1,3-Dichloropropane		<1	<1	<1	<1
Dibromochloromethane		<1	<1	<1	<1
1,2-Dibromoethane		<1	<1	<1	<1
Chlorobenzene		<1	2	<1	<1
Ethylbenzene		<1	<1	<1	<1
1,1,1,2-Tetrachloroethane		<1	<1	<1	<1
m+p-Xylene		<1	<1	<1	<1
o-Xylene		<1	<1	<1	<1
Styrene		<1	<1	<1	<1
Bromoform		<1	<1	<1	<1
iso-Propylbenzene		<1	<1	<1	<1
Bromobenzene		<1	<1	<1	<1
1,1,2,2-Tetrachloroethane		<1	<1	<1	<1
n-Propylbenzene		<1	<1	<1	<1
1,2,3-Trichloropropane		<1	<1	<1	<1
4-Chlorotoluene		<1	<1	<1	<1
2-Chlorotoluene		<1	<1	<1	<1
1,3,5-Trimethylbenzene		<1	<1	<1	<1
tert-Butylbenzene		<1	<1	<1	<1
1,2,4-Trimethylbenzene		<1	<1	<1	<1
sec-Butylbenzene		<1	<1	<1	<1
p-Isopropyltoluene		<1	<1	<1	<1
1,3-Dichlorobenzene		<1	<1	<1	<1
1,4-Dichlorobenzene		<1	<1	<1	<1
n-Butylbenzene		<1	<1	<1	<1
1,2-Dichlorobenzene		<1	<1	<1	<1
1,2-Dibromo-3-chloropropane		<1	<1	<1	<1

Results expressed as ug/l (ppb) unless otherwise stated

** = INAB Accredited Tests ++ = Subcontracted Tests n/a = Non-INAB Accredited Tests
The above results relate only to the sample tested
This report should not be regenerated except in full and with the consent of T.E. Laboratories Ltd.

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TelLab

ANALYSIS OF AQUEOUS SAMPLES.

Date sampled: 12.06.2008
Date rec'd: 13.06.2008
Date Analysis Commenced: 13.06.2008
Our ref: WS-21662, R08/8009 & AL-80068620/S/0/1
Certificate No: L/08/1474

Determinand	Sample ID Lab ID	SE1 72817
Microtoxins (++)		
Microtox TF Diln (5min)	++	2
Microtox TF Diln (15min)	++	2
Microtox TF result (5min)	++	8.20
Microtox TF result (15min)	++	9.84
Microtox EC50 (5min)	++	<2.0
Microtox EC50 (15min)	++	<2.0

** = INAB Accredited Tests ++ = Subcontracted Tests n/a = Non-INAB Accredited Tests

The above results relate only to the sample tested
This report should not be regenerated except in full and with the consent of T.E. Laboratories Ltd.

5 of 17

TelLab

ANALYSIS OF AQUEOUS SAMPLES.

Date sampled: 12.06.2008
Date rec'd: 13.06.2008
Date Analysis Commenced: 13.06.2008
Our ref: WS-21662, R08/8009 & AL-80068620/S/0/1
Certificate No: L/08/1474

Determinand	Sample ID / Lab ID	GW1 Stream 72814	GW2 Well 72815	GW3 Borehole 72816
BOD	n/a	<2	<2	2
Cadmium (ug/l)	**	<0.2	0.3	0.5
Calcium	**	42	65	65
Chloride	**	22	25	26
Chromium (ug/l)	**	<1	<1	<1
COD	n/a	<4	4	<4
Copper (ug/l)	++	6.66	1.46	12.03
Lead (ug/l)	**	<2	<2	<2
Magnesium	**	5	7	9
Nickel (ug/l)	++	<0.5	<0.5	1.6
Nitrate	**	14	2	6
pH	**	7.5	7.0	7.0
Potassium	**	3	6	4
Sodium	**	16	19	18
Sulphate	**	20	17	20
Suspended Solids	**	4	7	10
Zinc	**	0.02	0.02	0.41
VOC's	++	##	##	##

Analysis of metals are performed on the filtered sample
Please see attached.

Results expressed as mg/l (ppm)
unless otherwise stated

** = INAB Accredited Tests ++ = Subcontracted Tests n/a = Non-INAB Accredited Tests

The above results relate only to the sample tested
This report should not be regenerated except in full and with the consent of T.E. Laboratories Ltd.

ISO 17025 IVNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 106T

T.E. LABORATORIES LIMITED
Trading as
TelLab

Tullow Industrial Estate, Tullow, Co. Carlow
Phone: 059-9152881 Fax: 059-9152886

AMENDED CERTIFICATE OF ANALYSIS
REPLACING CERTIFICATE OF ANALYSIS L/08/2829

Project Description:	Analysis of Aqueous Samples		
Attention:	Mr. John O'Connell	**Lab ID:**	76934
Company:	Dulux Paints Ireland Ltd.	**Date Sampled:**	26.11.2008
Address:	Shandon Works Commons Road, PO Box 45 Cork		
Certificate No:	L/08/2829A	**Date Rec'd:**	27.11.2008
Issue Date:	23.12.2008	**Our Ref:**	WS-23091, 150219,80073667/S/0/1

Project Summary: One sample was analysed for a range of determinands. Please see page 2-4 for results. Terms & Conditions and methods used are outlined in the attached appendix.

No. of Pages: Results page 2-4 plus 4 page appendix

Mr Mark Bowkett
Chief Executive

Breda Moore

Ms Breda Moore
Technical Manager

TelLab

ANALYSIS OF AQUEOUS SAMPLES.

Date sampled: 26.11.2008
Date rec'd: 27.11.2008
Date Analysis Commenced: 27.11.2008
Our ref: WS-23091, 150219,80073667/S/0/1
Certificate No: L/08/2829A

Determinand	Sample ID Lab ID	Trade Effluent 76934
BOD	n/a	2
Cadmium #	**	<0.03
Chromium #	**	<0.05
COD	n/a	9
Copper #	**	<0.05
Detergents as MBAS	n/a	<0.05
Iron #	**	0.15
Lead #	**	<0.20
Manganese #	**	<0.03
Oils, Fats & Greases	n/a	<2
pH	**	7.5
Sulphate	**	81
Zinc #	**	0.30
Microtoxins	++	##
VOC's	++	##

Analysis of metals are performed on the filtered sample
Please see attached.

Results expressed as mg/l (ppm)
unless otherwise stated

** = INAB Accredited Tests ++ = Subcontracted Tests n/a = Non-INAB Accredited Tests

The above results relate only to the sample tested
This report should not be regenerated except in full and with the consent of T.E. Laboratories Ltd.

ANALYSIS OF AQUEOUS SAMPLES.

Date sampled: 26.11.2008
Date rec'd: 27.11.2008
Date Analysis Commenced: 27.11.2008
Our ref: WS-23091, 150219,80073667/S/0/1
Certificate No: L/08/2829A

Volatile Organic Compounds ++

	Sample ID	Trade Effluent
Determinand	**Lab ID**	**76934**
1,1,1,2-Tetrachloroethane	ug/l	<1
1,1,1-Trichloroethane	ug/l	<1
1,1,2,2-Tetrachloroethane	ug/l	<1
1,1,2-Trichloroethane	ug/l	<1
1,1,2-Trichloroethylene	ug/l	<1
1,1-Dichloroethane	ug/l	<1
1,1-Dichloroethylene	ug/l	<1
1,1-Dichloropropene	ug/l	<1
1,2,3-Trichloropropane	ug/l	<1
1,2,4-Trimethylbenzene	ug/l	<1
1,2-dibromoethane	ug/l	<1
1,2-Dichlorobenzene	ug/l	<1
1,2-Dichloroethane	ug/l	<1
1,2-Dichloropropane	ug/l	<1
1,3,5-Trimethylbenzene	ug/l	<1
1,3-Dichlorobenzene	ug/l	<1
1,3-Dichloropropane	ug/l	<1
1,4-Dichlorobenzene	ug/l	<1
2,2-Dichloropropane	ug/l	<1
2-Chlorotoluene	ug/l	<1
4-Chlorotoluene	ug/l	<1
Benzene	ug/l	<1
Bromobenzene	ug/l	<1
Bromochloromethane	ug/l	<1
Bromodichloromethane	ug/l	**5**
Bromoform	ug/l	**1**
Bromomethane	ug/l	<1
Carbon tetrachloride	ug/l	<1
Chlorobenzene	ug/l	<1
Chlorodibromomethane	ug/l	**5**
Chloroethane	ug/l	<1
Chloroform	ug/l	**4**
Chloromethane	ug/l	<1
Cis-1,2-Dichloroethylene	ug/l	<1
Cis-1,3-Dichloropropene	ug/l	<1
Dibromomethane	ug/l	<1
EthylBenzene	ug/l	<1
Meta/Para-Xylene	ug/l	<1
Ortho-Xylene	ug/l	<1
Styrene	ug/l	<1
Tetrachloroethylene	ug/l	<1
Toluene	ug/l	<1
Trans-1,2-Dichloroethylene	ug/l	<1
Trichlorofluoromethane	ug/l	<1
Vinyl chloride monomer	ug/l	<1

Results expressed as ug/l (ppb) unless otherwise stated

** = INAB Accredited Tests ++ = Subcontracted Tests n/a = Non-INAB Accredited Tests
The above results relate only to the sample tested

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TelLab

ANALYSIS OF AQUEOUS SAMPLES.

Date sampled: 26.11.2008
Date rec'd: 27.11.2008
Date Analysis Commenced: 27.11.2008
Our ref: WS-23091, 150219,80073667/S/0/1
Certificate No: L/08/2829A

Determinand	Sample ID / Lab ID	Trade Effluent / 76934
Microtoxins (++)		
Microtox TF Diln (5min)	++	2
Microtox TF Diln (15min)	++	2
Microtox TF result (5min)	++	<5.00
Microtox TF result (15min)	++	12.7
Microtox EC50 (5min)	++	<2.0
Microtox EC50 (15min)	++	<2.0

** = INAB Accredited Tests ++ = Subcontracted Tests n/a = Non-INAB Accredited Tests

The above results relate only to the sample tested
This report should not be regenerated except in full and with the consent of T.E. Laboratories Ltd.

Microtox analysis:
EC50 5/15 min. (as%) = >50% sample concentration.

ENVIRONMENTAL PROTECTION AGENCY
CORK REGIONAL INSPECTORATE
INNISCARRA, Co. CORK

Tel: 021-4875540 Fax: 021-4875545

Issued: 08/07/2008

Final Test Report Report No: 280627 / 1

Client: OEE Enforcement Admin (Cork)

Sample No: **280627** Location: **ICI Dulux Paints (Eff. SE1)**

Licence No. P0218-01 (formerly 218) Issued by: Env. Protection Agency

Description: Industrial/IPPC Effluent Flow: 2791LITRES/3.45HRS

Sampled: 15/04/2008 at 1245 by OH Sampled as: Composite Split sample: No

Received: 15/04/2008

Remarks:

Determination	Result	Units	Spec Limits	Status	Method Description & EPA Method No.		Accred
pH	7.71	pH units	4.0 - 10.0		Electrometry	B3	Y
pH measured at:	15.4	°C			Thermometry	B3	N
BOD5 (No inhibition)	< 1.0	mg/l	3000 or 15 kg/day		Electrometry	B5	Y
Chemical Oxygen Demand	< 10	mg/l O2	6000 or 30 kg/day		Digest / Colorimetry	B1,B2	Y
Suspended Solids	4.0	mg/l	50 or 0.25 kg/day		Gravimetry	B7	Y
Sulphate (Wastewater)	38.3	mg/l	300		Ion Chromatography	B31	Y
Anionic Surfactants (MBAS)	0.02	mg/l as LS	3		Extraction / Colorimetry	Sub_cont	S
Cadmium (High range)	< 0.0001	mg/l			ICP-MS	ICP	S
Chromium (High range)	< 0.005	mg/l			ICP-MS	ICP	S
Copper (High range)	0.007	mg/l			ICP-MS	ICP	S
Nickel (High range)	0.008	mg/l			ICP-MS	ICP	S
Lead (High range)	< 0.001	mg/l			ICP-MS	ICP	S
Zinc (High range)	0.218	mg/l			ICP-MS	ICP	S
Fats,Oils & Greases	No FOG present in sample				Visual Assessment	B28	N
VOC Screen (Sum by GCMS)	6.00	µg/l			Gas Chromatography	Sub_Cont	S

Comments: VOCs analysis carried out by EPA Kilkenny, test report KK2800896/1 refers. Anionic detergents (as MBAS) are determined using Lauryl Sulphate as the reference substance. The ratio of LS : SDBS (Sodium Dodecyl Benzene Sulphonate) as per I.S. EN903:1994 is approximately 1:1.9 based on analysis to date. Bodycote Consultus Test Report 5919R refers. Metals analysis carried out by EPA Dublin.

Signed: P. Webster

Peter Webster, (Regional Chemist)

Test reports relate solely to above sample as received and should only be reprinted in full.
Details of test methods, measurement uncertainty and interpretation of status flags on reverse of page.
Decimal zero's in BODs mg/l between 10 -100 are a function of the reporting algorithm and are not intended to imply enhanced measurement resolution. Issue 5, Revised 2/02/05

ISO 17025 IRNAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1177

Environmental Protection Agency
Regional Inspectorate
Seville Lodge, Callan Road,
Kilkenny

Report of: VOC Analysis
Report to: EPA Cork
Report date: 24/04/08

Location sampled:

Date sampled: 15/04/2008 Date received: 17/04/2008

Laboratory Ref:	2802062
Type of sample:	Effluent
Sampling point:	Dulux 280627
Sampled by:	EPA Cork
Time Sampled:	
Start/End - Dates of Analysis:	
Status of results:	**Final Report**

Parameter	Units	
1,1,1,2-Tetrachloroethane	µg/l	<0.5
1,1,1-Trichloroethane	µg/l	<0.5
1,1,2,2-Tetrachloroethane	µg/l	<0.5
1,1,2-Trichloroethane	µg/l	<0.5
1,1-Dichloroethane	µg/l	<0.5
1,1-Dichloroethene	µg/l	<0.5
1,1-Dichloropropene	µg/l	<0.5
1,2,3-Trichlorobenzene	µg/l	<0.5
1,2,3-Trichloropropane	µg/l	<0.5
1,2,4-Trichlorobenzene	µg/l	<0.5
1,2,4-Trimethylbenzene	µg/l	<0.5
1,2-Dibromo-3-Chloropropane	µg/l	<0.5
1,2-Dibromoethene	µg/l	<0.5
1,2-Dichlorobenzene	µg/l	<0.5
1,2-Dichloroethane	µg/l	<0.5
1,2-Dichloropropane	µg/l	<0.5
1,3,5-Trimethylbenzene	µg/l	<0.5
1,3-Dichlorobenzene	µg/l	<0.5
1,3-Dichloropropane	µg/l	<0.5
1,4-Dichlorobenzene	µg/l	<0.5
2,2-Dichloropropane	µg/l	<0.5
2-Chlorotoluene	µg/l	<0.5
4-Chlorotoluene	µg/l	<0.5
4-Isopropyltoluene	µg/l	<0.5

Laboratory Ref:	7802062
Type of sample:	Effluent
Sampling point:	Dulux
Sampled by:	EPA Cork
Time Sampled:	
Start/End - Dates of Analysis:	
Status of results:	Final Report

Parameter	Units	
Benzene	µg/l	<0.5
Bromobenzene	µg/l	<0.5
Bromochloromethane	µg/l	<0.5
Bromodichloromethane	µg/l	2.1
Bromoform	µg/l	0.5
Bromomethane	µg/l	<0.5
c-1,2-Dichloroethene	µg/l	<0.5
c-1,3-Dichloropropene	µg/l	<0.5
Carbon Tetrachloride	µg/l	<0.5
Chlorobenzene	µg/l	<0.5
Chloroform	µg/l	1.2
Dibromochloromethane	µg/l	2.7
Dibromomethane	µg/l	<0.5
Dichlorodifluoromethane	µg/l	<0.5
Ethylbenzene	µg/l	<0.5
Hexachlorobutadiene	µg/l	<0.5
Isopropylbenzene	µg/l	<0.5
m,p-Xylene	µg/l	<0.5
Methylene Chloride	µg/l	<0.5
Naphthalene	µg/l	<0.5
n-Butylbenzene	µg/l	<0.5
n-Propylbenzene	µg/l	<0.5
o-Xylene	µg/l	<0.5
sec-Butylbenzene	µg/l	<0.5
Styrene	µg/l	<0.5
t-1,2-Dichloroethene	µg/l	<0.5
t-1,3-Dichloropropene	µg/l	<0.5
tert-Butylbenzene	µg/l	<0.5
Toluene	µg/l	<0.5
Trichloroethene	µg/l	<0.5
Trichlorofluoromethane	µg/l	<0.5
Vinyl Chloride	µg/l	<0.5

Comments:

1) Results highlighted and in bold are outside specified limits.
2) All Metals Analysed in the EPA Dublin Laboratory,
   Cyanide Analysed in EPA Cork Laboratory.
   Phenols Analysed in the EPA Castlebar Laboratory.
3) **nm** "Not measured"
4) **nd** "None detected"
5) **nt** "No time" - Time not recorded
6) **tntc** "Too numerous to count"
7) F "Field measured parameters"

Signed: _____ Date: 24.4.08

Michael Neill, Regional Chemist

ENVIRONMENTAL PROTECTION AGENCY
CORK REGIONAL INSPECTORATE
INNISCARRA, Co. CORK

Tel: 021-4875540 Fax: 021-4875545

Issued: 26/01/2009

Final Test Report Report No: 282246 / 2

Client: OEE Enforcement Admin (Cork)

Sample No: **282246** Location: **ICl Dulux Paints (Eff. SE1)**

Licence No. P0218-01 (formerly 218) Issued by: Env. Protection Agency

Description: Industrial/IPPC Effluent Flow: 1600 L/130mins

Sampled: 26/11/2008 at 1115 by PM Sampled as: Composite Split sample: Yes

Received: 26/11/2008

Remarks:

Determination	Result	Units	Spec Limits	Status	Method Description & EPA Method No.		Accred
pH	7.68	pH units	4.0 - 10.0		Electrometry	B3	Y
pH measured at:	15.5	°C			Thermometry	B3	N
BOD5 (No inhibition)	1.5	mg/l	3000 or 15 kg/day		Electrometry	B5	Y
BOD(2d <5°C+5d incub. 20°C)	< 1.0	mg/l			Electrometry	B5	Y
Chemical Oxygen Demand	< 10	mg/l O2	6000 or 30 kg/day		Digest / Colorimetry	B1,B2	Y
Suspended Solids	3.2	mg/l	50 or 0.25 kg/day		Gravimetry	B7	Y
Sulphate (Wastewater)	80.9	mg/l	300		Ion Chromatography	B31	N
Anionic Surfactants (MBAS)	0.04	mg/l as LS	3		Extraction / Colorimetry	Sub_cont	S
Cadmium (High range)	< 0.0001	mg/l			ICP-MS	ICP	S
Chromium (High range)	0.020	mg/l			ICP-MS	ICP	S
Copper (High range)	0.023	mg/l			ICP-MS	ICP	S
Nickel (High range)	0.058	mg/l			ICP-MS	ICP	S
Lead (High range)	< 0.001	mg/l			ICP-MS	ICP	S
Zinc (High range)	0.244	mg/l			ICP-MS	ICP	S
Total Heavy Metals	0.345	mg/l	1		Sum Cd,Cr,Cu,Ni,Pb,Zn		N
Fats,Oils & Greases	No visible FOG present in sample.				Visual Assessment	B28	N
VOC Screen (Sum by GCMS)	13.0	µg/l			Gas Chromatography	Sub_Cont	S

Comments: Metals analysis carried out by EPA Dublin. VOCs analysis carried out by EPA Kilkenny, test report KK2802497/1 refers. Anionic detergents (as MBAS) are determined using Lauryl Sulphate as the reference substance. The ratio of LS : SDBS (Sodium Dodecyl Benzene Sulphonate) as per I.S. EN903:1994 is approximately 1:1.9 based on analysis to date. Bodycote Consultus Test Report 263275 refers. Non-accredited result entered for Sulphate as sample analysed outside 28 days.

Signed: P. Webster

Peter Webster, (Regional Chemist)

Test reports relate solely to above sample as received and should only be reprinted in full.
Details of test methods, measurement uncertainty and interpretation of status flags on reverse of page.
Decimal zero's in BODs mg/l between 10 -100 are a function of the reporting algorithm and are not intended to imply enhanced measurement resolution. Accreditation for B8 Anions has been withdrawn temporarily pending change of range of measurement.

Issue 6, Revised 25/7/08

ISO 17025 INAB ACCREDITED TESTING DETAILED IN SCOPE REG NO. 1171

Environmental Protection Agency
Regional Inspectorate
Seville Lodge, Callan Road,
Kilkenny

Report of: VOC Analysis
Report to: EPA Cork
Report date: 19/12/08

Location sampled:
Date sampled: 26/11/2008 Date received: 28/11/2008

		Laboratory Ref:	2806289
		Type of sample:	Effluent
		Sampling point:	Dulux SE1 282246
		Sampled by:	EPA Cork
		Time Sampled:	
		Start/End - Dates of Analysis:	
		Status of results:	**Final Report**
Parameter		**Units**	
	1,1,1,2-Tetrachloroethane	µg/l	<0.5
	1,1,1-Trichloroethane	µg/l	<0.5
	1,1,2,2-Tetrachloroethane	µg/l	<1
	1,1,2-Trichloroethane	µg/l	<0.5
	1,1-Dichloroethane	µg/l	<0.5
	1,1-Dichloroethene	µg/l	<0.5
	1,1-Dichloropropene	µg/l	<0.5
	1,2,3-Trichlorobenzene	µg/l	<0.5
	1,2,3-Trichloropropane	µg/l	<0.6
	1,2,4-Trichlorobenzene	µg/l	<0.5
	1,2,4-Trimethylbenzene	µg/l	<0.5
	1,2-Dibromo-3-Chloropropane	µg/l	<1.3
	1,2-Dibromoethene	µg/l	<0.5
	1,2-Dichlorobenzene	µg/l	<0.5
	1,2-Dichloroethane	µg/l	<0.5
	1,2-Dichloropropane	µg/l	<0.5
	1,3,5-Trimethylbenzene	µg/l	<0.5
	1,3-Dichlorobenzene	µg/l	<0.5
	1,3-Dichloropropane	µg/l	<0.5
	1,4-Dichlorobenzene	µg/l	<0.5
	2,2-Dichloropropane	µg/l	<0.5
	2-Chlorotoluene	µg/l	<0.5
	4-Chlorotoluene	µg/l	<0.5
	4-Isopropyltoluene	µg/l	<0.5

Laboratory Ref:	2806289
Type of sample:	Effluent
Sampling point:	Dulux SE1
Sampled by:	EPA Cork
Time Sampled:	
Start/End - Dates of Analysis:	
Status of results:	**Final Report**

Parameter	Units	
Benzene	µg/l	<0.5
Bromobenzene	µg/l	<0.5
Bromochloromethane	µg/l	<0.5
Bromodichloromethane	µg/l	4.8
Bromoform	µg/l	<0.5
Bromomethane	µg/l	<0.5
c-1,2-Dichloroethene	µg/l	<0.5
c-1,3-Dichloropropene	µg/l	<0.5
Carbon Tetrachloride	µg/l	<0.5
Chlorobenzene	µg/l	<0.5
Chloroform	µg/l	3.6
Dibromochloromethane	µg/l	4.6
Dibromomethane	µg/l	<0.5
Dichlorodifluoromethane	µg/l	<0.5
Ethylbenzene	µg/l	<0.5
Hexachlorobutadiene	µg/l	<0.5
Isopropylbenzene	µg/l	<0.5
m,p-Xylene	µg/l	<0.5
Methylene Chloride	µg/l	<0.5
Naphthalene	µg/l	<0.5
n-Butylbenzene	µg/l	<0.5
n-Propylbenzene	µg/l	<0.5
o-Xylene	µg/l	<0.5
sec-Butylbenzene	µg/l	<0.5
Styrene	µg/l	<0.5
t-1,2-Dichloroethene	µg/l	<0.5
t-1,3-Dichloropropene	µg/l	<0.5
tert-Butylbenzene	µg/l	<0.5
Toluene	µg/l	<0.5
Trichloroethene	µg/l	<0.5
Trichlorofluoromethane	µg/l	<0.6
Vinyl Chloride	µg/l	<0.5

Comments:

1) Results highlighted and in bold are outside specified limits.
2) All Metals Analysed in the EPA Dublin Laboratory.
   Cyanide Analysed in EPA Cork Laboratory.
   Phenols Analysed in the EPA Castlebar Laboratory.
3) **nm** "Not measured"
4) **nd** "None detected"
5) **nt** "No time" - Time not recorded
6) **tntc** "Too numerous to count"
7) **F** "Field measured parameters"

Signed: _____ Date: 19/12/08

M Michael Neill, Regional Chemist

APPENDIX

Joseph Lane & Sons Limited
Monahan Road, Cork.

LANE
Builders & Contractors

Tel. (021) 496 5233
Fax. (021) 496 5067
Email: info@jlaneandsons.ie
Web: www.jlaneandsons.ie

Dulux

Drain Test Report

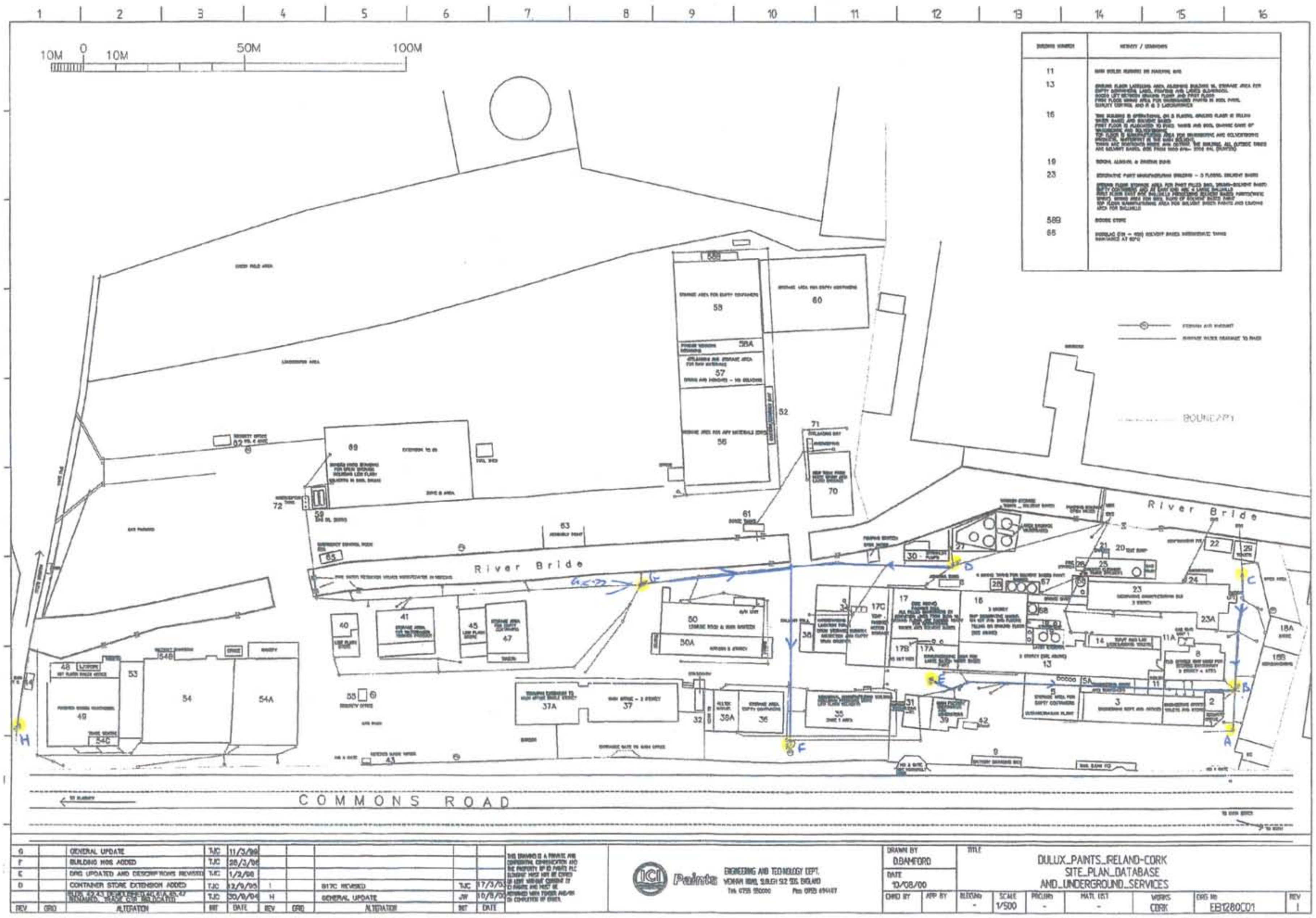
Nov 2008

This test report should be read in conjunction with the drawing supplied.
This is a mechanical test were manholes are securely bunged and subsequent manholes are filled with water and left for a period of 16 hours. The water level is checked and marked initially and then rechecked over the 16 hour period.

1. Manhole B bunged and manhole C filled, this showed a leakage in the line. The pipes may have been damaged in the demolition of the old buildings that where located in this area. The area is now redundant of all manufacturing.
2. Manhole A bunged and manhole E filled, no leakage occurred in this line.
3. Manhole F bunged and manhole D filled, no leakage occurred in this line.
4. Manhole F bunged and manhole G filled, no leakage occurred in this line.
5. Manhole F bunged and manhole H filled, this showed signs of leakage but is not located in a manufacturing area. The pipe maybe damaged close to manhole H as there are signs of construction work completed in this area i.e. bund walls attached to Building 49

Dave Walsh
Joseph Lane and Sons

2 of 2.


10M
0
10M
50M
100M
River Bride
River Bride
COMMONS ROAD
BOUNDARY
A
B
C
D
E
F
H
DRAWN BY
D.BAMFORD
DATE
10/08/00
TITLE
DULUX_PAINTS_IRELAND-CORK
SITE_PLAN_DATABASE
AND_UNDERGROUND_SERVICES
SCALE
1/500
WORKS
CORK
DRG No
EB1280C01
REV
1
ICI Paints
ENGINEERING AND TECHNOLOGY DEPT.
GENERAL UPDATE
BUILDING NOS ADDED
DRG UPDATED AND DESCRIPTIONS REVISED
CONTAINER STORE EXTENSION ADDED
B17C REVISED
GENERAL UPDATE
ALTERATION