#### **COVENTRY CITY COUNCIL**



#### **ENVIRONMENTAL PROTECTION ACT 1990, SECTIONS 8(8), 12**

#### NOTICE OF REVOCATION



To: Marley Plc

7 Oakhill Road, Sevenoaks, Kent, TN13 1NQ

Coventry City Council ("the Council"), in exercise of the powers conferred on it by section 8(8), 12 of the Environmental Protection Act ("the Act"), hereby gives you notice as follows:

(for section 12(1) notices)

1. The authorisation reference 078 is hereby revoked with effect from 5th January 1998.

Signed on behalf of Coventry City Council		
City Environment Officer The officer appointed for the	at purpose	

Date:	************	•••••	
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Your Reference

Our Reference Planse ask for : EH/EP/SB

: Mrs S Bodycote L at Dialling No : 01203 831807

Date

: 25th January 1996



HOUSING AND ENVIRONMENTAL SERVICES DIRECTORATE

Director Howard T. Farrand Providing Housing, Environmental and **Client Agency Services** 

Michael J. Green City Environment Officer **Broadgate House** Broadgate Coventry, CV1 1NH

Telephone: 01203 83 1832/34 Telecom Gold Mailbox: 76: END042

: 01203 83 1831

#### THE ENVIRONMENTAL PROTECTION ACT 1990

The Environmental Protection (Prescribed Processes and Substances) Regulations 1991, SI 472.

The Environmental Protection (Application, Appeals and Registers) Regulations 1991, SI 507.

**Authorisation No: 078** 

Application Received: 17th May 1995

Notice is hereby given that under the Environmental Protection Act 1990 Coventry City Council (hereafter called the Authority) gives authorisation to:

Marley Plc 7 Oakhill Road Sevenoaks Kent **TN13 1NQ** 

Register in England No: 1676532

For the manufacture of polyurethane foam components as described on page 2 at:

Marley Automotive Components Ltd Manor Park Quinn Close Coventry CV3 4LH

Subject to the conditions specified on the attached pages, Nos 2-4, and within the process boundaries as indicated on plan number 1.

Signed Assistant Director of **Environmental Services** 

Dated 315 day of Thurs 1996

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#### 1. **DESCRIPTION OF PROCESS**

- 1.1 This authorisation is for the manufacture of polyurethane foam components, as described in the Environmental Protection (Prescribed Processes and Substances) Regulations 1991, SI472, Section 6.2 Part B. Within the process boundary outlined in red on the attached plan numbered and specifically relates to the process outlined below.
- 1.2 The delivery and storage of polyurethane prepolymers, resins and mould releasers in sealed containers in the area marked drum storage area on the plan numbered 1.
- 1.3 The application of mould release agents to the surface of the mould cavities.
- 1.4 The loading of MDI into a machine tank utilising a sealed feed system.
- 1.5 The premixing of prepolymers and resins with subsequent pouring into open mould cavities.
- 1.6 Any change to the above descriptions must not take place without prior consent from this authority.

#### 2. EMISSION LIMITS AND CONTROLS

- 2.1 All emissions to air, other than steam or water vapour, should be colourless and free from persistent mist. All emissions to air should be free from persistent fume and free from droplets.
- 2.2 All emissions to air shall be free from offensive odour outside the process boundary, as perceived by the Local Authority Inspector.

#### 3. MONITORING SAMPLING AND MEASUREMENT OF EMISSIONS

- 3.1 An olfactory assessment of emissions from the process shall be made at least once a day around the perimeter of the process boundary, where accessible, during operation.
- 3.2 The results of monitoring to comply with 3.1 shall be recorded in a log book. This log book shall be retained, on site, for a minimum of four years.
- 3.3 Any adverse results from the monitoring required in 3.1 shall be followed immediately by the investigation of the cause of the emission and any corrective action taken, with this also being recorded in the log book.

#### 4. MATERIALS HANDLING

- 4.1 The mixing of prepolymers and resins shall only be carried out in the dedicated mixing equipment prior to pouring into the mould cavity.
- 4.2 Partly-used containers of MDI shall be securely lidded and shall be stored in the drum storage area as shown on plan numbered 2.
- 4.3 Empty drums of MDI must be decontaminated with neutralisation solution as soon as practicable before removal from process site. These containers must not be lidded and shall be stored in the drum storage area as shown on plan numbered 1.

- 4.4 Suitable and adequate amounts of neutralisation agents shall be held in the stores at all times.
- 4.5 A sufficient supply of a suitable absorbent, non-flammable material shall be kept on site at all times. A spillage of material shall be attended to and remedied as soon as possible and the contaminated absorbent shall be held in closed containers once the di-isocyanate has reacted prior to removal for disposal.

#### 5. GENERAL OPERATIONS

- 5.4 Any mechanical malfunction or breakdown shall be attended to and remedied as soon as possible. Any accident likely to give rise to atmospheric emissions shall be noted in detail in the process log book as described in 3.2.
- 5.5 Any incidents likely to give rise to emissions which may have an impact on neighbouring residents shall be reported immediately to this Authority.
- 5.6 A copy of this authorisation shall be displayed so it can be conveniently read by persons having duties which are or maybe affected by this authorisation.
- 5.7 The operator shall supply, to this Authority, on demand and without charge, a copy of all or part of the monitoring records kept in accordance with this authorisation.

#### SUPPLEMENTARY NOTES

#### These Notes Are Not Part Of The Authorisation

- a. Your attention is drawn to your obligation under Section 7(2) of the Environmental Protection Act 1990 to ensure that the best available techniques, not entailing excessive cost (BATNEEC) for:
  - (1) For preventing the release of prescribed substances prescribed in to the air or, where that is not practicable by such means, for reducing the release into the air of such substances to a minimum and for rendering harmless any such substances which are so released.

and

- (2) For rendering harmless any other substances which might cause harm if released into the air.
- b. The Authority for contact purposes should be taken to mean the Head of the Pollution Control Section, of the Department of Housing and Environmental Services, telephone 831834 during office hours, 832222 outside office hours.

epa\_B\_auth/marley



Our Ref: JB/bal/0783

25 July 1995

Mrs. S. Bodycote,
Environmental Protection Officer,
City of Coventry Housing &
Environmental Services Directorate,
Broadgate House,
Broadgate,
Coventry, CV1 1NH.

Dear Mrs. Bodycote,

Please find below, information requested relating to our application for Authorisation of a Di-isocyanate Process at our Manor Park Factory.

- 1. No foam cutting operations will be carried out.
- There is no pre-heating of materials (polyol blend or MDI). The process is 'cold cure' and material process temperatures are 18-22°C.
- No post curing will be carried out it is not necessary for our type of product.
- 4. Drums containing residues of MDI will then be neutralised using a mixture of 90% water and 10% ammonia or disposed of un-neutralised by an approved method. Any waste isocyanate will be disposed of according to current legislation relating to the disposal of hazardous waste.
- All drums containing MDI will be stored in the area shown on the proposed layout. Empty drums will be stored in the same area.
- Open pour' moulding will be utilised.
- No exhaust ventilation/extraction is planned as emissions of di-isocyanate to the atmosphere resulting from the proposed process are below detectable levels.

Cont./...





If you require further information, please do not hesitate to contact me. If you wish to see a similar process to the one intended, you are welcome to visit our Lenham (Kent) factory at your convenience.

Yours sincerely, MARLEY AUTOMOTIVE COMPONENTS LTD.

J. BUCKLEY 
WORKS CHEMIST & HEALTH
SAFETY OFFICER

EH/EP/SB S Bodycote 01203 831807 28th November 1995



Mr J Buckley Marley Automotive Components Ltd Lenham MAIDSTONE Kent ME17 2DE

#### Dear Mr Buckley

Please find enclosed a draft copy of your authorisation to operate a prescribed diisocynate process at Manor Park, Quinn Close, Coventry.

If there are any comments you wish to make before a final copy is drafted please contact me in writing at the above address.

I would also appreciate further details on the drum storage area, ie whether the area is enclosed, the way in which full, partly used and empty containers are separated.

If you have any other queries regarding this matter please contact me on the above number.

Yours sincerely

S Bodycote Environmental Protection Officer

m/em2711sb

A/Area Director: B W McCORDALL



Engineering and Metal Goods East Group

Chief Environmental Officer City of Coventry Broadgate House COVENTRY CV1 1NH Our Ref: NAM/LMK

Your Ref: EM/EP/SB

113 JUN 1995

Dear Sirs

ENVIRONMENTAL PROTECTION ACT 1990 PART 1: AUTHORISATION FOR SCHEDULE B PROCESS AT MARLEY AUTOMOTIVE COMPONENTS LTD, QUINN CLOSE, COVENTRY CV3 4LH

Thank you for consulting the Health and Safety Executive about the above application for polyurethane foaming process at Quinn Close, Coventry, submitted by Marley Automotive Components Ltd. Details of the application are noted for our records.

This process involves the use of, or may give rise to, substances likely to be subject to the Control of Substances Hazardous to Health Regulations 1994 (COSHH). Occupational exposure limits for a range of substances have been assigned under COSHH. Details of these standards are given in the current edition of Guidance Note EH40, purchasable from Dillons/Rymans book shops.

I confirm that HSE is responsible for enforcing health and safety legislation at these premises. In our assessment of this application we have not identified significant elements of conflict or ambiguity with health and safety at work issues. However, if your consideration of the application suggests that these conflicts might develop then please let me know. I would be pleased to discuss these with you before you make a determination.

It is suggested that the following text may be a useful reminder to the applicant and could be included in any covering letter sent with the authorisation. "This authorisation is issued under Part 1 of the Environmental Protection Act 1990. The responsibilities you have under legislation for health, safety and welfare in the workplace remain in force".

When the authorisation is issued I would be grateful if you would forward a copy to me for retention, so that it may be consulted at any future visit to the premises.

Yours faithfully

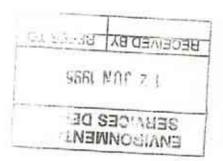
N A MAYCOCK / HM Inspector of Factories



Our Ref: JB/0570/bal

8 June 1995

Mrs. S. Bodycote,
Environmental Protection Officer,
City of Coventry
Housing & Environmental Services Directorate,
Broadgate House,
Broadgate,
Coventry, CV1 1NH.



Dear Mrs. Bodycote,

Please find enclosed a copy of the advertisement placed in the Coventry Evening Telegraph for week commencing the 5th June, 1995, advertising our Application for Authorisation of a Di-isocyanate Process at our Manor Park Factory.

I hope this is satisfactory and enables progression of our application.

Yours sincerely,
MARLEY AUTOMOTIVE COMPONENTS LTD.



J. BUCKLEY WORKS CHEMIST & HEALTH & SAFETY OFFICER



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Marky — Automotive Components Ltd has upplied for authorisation from Coverny City Council to operate a Di-Bocyanate Process at Marky Automotive Components Ltd, Manor Park, Quim Close, Coventry CV3 4LH. TWO and three bed houses to let: Radford, Poleshill, Longford and Papathe. - Tel. BEDSIT furnished, pwn kitchen and bathrhom facili-ties, Earladon. - Tel. (\$1203) 415019. FURNISHED

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TOLL Bur Bed, 2 ject-surnished flat, suit working you pile. £260pcm. References Required. Tel 10203 45474.
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to the above address within 28 days of GA/06/95. Written representations about

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■ Skilled Labour

CONCERN TO WHOM

I, Kathleen Lambert, now residing at 76 Bulkington Lane, Nuneaton, Warwickshire CV11 4SA, having during the past six monitive carried or during the past six monitive carried or during the past six monitive carried or calling of Manager, Mayfield Home for the Elderty. Bedworth, and being a person interested in the premises described below, do herby give notice that it is my intention to apply at the Transfer Sessions for the District of Nuneaton and Bedworth to be held at Nuneaton Magistrates Count on the 21st day of June next, for the provisional grant to me of a Justices? Licence, authorising ne to sell by retail intoxicating figure of all descriptions for consumption on the premises currently in the course of consumption and the ground floor of which is shown on the plan lodged with the Clerk to the Licensing Justices ("the plan") situated at Mayfield Chose, Bedworth, and forming part of the Mayfield Home for the Elderty of which premises Warwickshire County Council is the owner, subject to

1. The sale supply and consumption of intoxicating liquor shall be confined to the area shown edged red on the plan ("the licensed premises").

2. There shall be no sale or supply of intoxicating liquor.

(I) Residents/persons attending the Day Care Centre and off duty staff at Mayfield (ii) Bons fide guests and relatives of the residents of

3. There shall be no sale or supply of introdesting liquor for consumption off the licensed premises.

4. There shall be no application for occasional licences GIVEN under my hand this 8th day of June, 1895.

DAVID GRENVILLE CARTER

County Solicitor
Authorised agent for and on

#### APPLICATION FOR AUTHORISATION TO CARRY OUT PRESCRIBED PROCESSES (6.2 DI-ISOCYANATE PART B) UNDER SECTION 6 OF THE ENVIRONMENTAL PROTECTION ACT 1990

To: The City of Coventry Housing & Environmental Services Directorate

1. Name & Address of Applicant

(In the case of a Registered Company, Name, Number and Registered Office)

Marley PLC 7 Oakhill Road Sevenoaks Kent, TN13 1NQ

ń

(01732) 455255

2. Name & Address of Premises where Process is or will be carried out

Marley Automotive Components Ltd. Manor Park

Quinn Close

Coventry, CV3 4LH

(01203) 303343

3. Address for Correspondence relating to the Application

Marley Automotive Components Ltd.

Dickley Lane

Lenham

DD: 43

Nr. Maidstone

Kent, ME17 2DE

**Contact Name:** 

Mr. J. Buckley

Tel: (01622) 859491

4. <u>List of Maps & Plans enclosed with the Application, showing the location of the premises where the process will be carried on</u>

Title	Reference No.
Location Map	Map 1
Factory Plan	Plan 1
SITE PLAN	PLAN Z

Where the process will be carried out on only part of the premises, whose address is given in 2 above, describe which part of the premises and list the Plan(s) which identifies this part or these parts

Plan 1 - Area marked 'Polyurethane Foaming'

#### 5. <u>Description of the Prescribed Process</u>

#### A. General Description

#### (a) Raw Materials

The di-isocyanate process is used to produce polyurethane foam of various grades suitable for the manufacture of car components.

The two basic materials used to make the polyurethane foam are:-

- (i) Diphenyl Methane Di-isocyanate (MDI). Pure MDI will not be used, but partly polymerised cruder grades. The commercial grades likely to be employed are:-
  - Elastogran B237 (Elastogran U.K.)
  - **O** Desmodur 44V20F (Bayer)

The general chemical formula for these is:-

(ii) <u>Polyether Polyol Blends</u> of various compositions to suit the grade of the polyurethane required for the product.

The two basic materials are mixed in the correct proportions to form the polyurethane.

The fundamental chemical reaction is

R-NCO + HO -R¹ → RN-COOR¹

H

MDI Isocyanate Polyol Polyurethane

The two basic materials are mixed in such proportions that all of the isocyanate is consumed - no unreacted isocyanate remains.

#### (b) Processing

L

The two basic materials (MDI and Polyol Blend) are mixed to form polyurethane foam. Expansion of the foam, if necessary, to reduce its density is accomplished using water as a 'blowing agent'. NO volatile organic solvents, CFC's, HCFC's etc. will be employed for this purpose.

The foam is dispensed from a foam machine that meters the materials in the correct proportions and mixes them.

#### The mixture is either:

(i) Poured into an open mould that is then closed allowing the foam to expand and assume its required shape; or

(ii) <u>Injected into a closed mould</u> where the foam expands, cures and assumes its required shape.

A 'High Pressure' machine will be used to meter, mix and dispense the foam into the moulds.

A schematic diagram of a high pressure machine is shown in Fig. 1.

The MDI and polyol blend are metered to the correct proportions and mixing is achieved by impingement of the two streams of material. The mixing head is 'self cleaning'. Material left in the mixing champer is fully reacted polyurethane foam and is pushed out using a piston. NO solvents are used for cleaning.

Typical material process temperatures will be, for the materials 18-22°C, and for the moulds 20-40°C.

Some release agent to facilitate removal of parts from the foaming moulds will be used. These will be solvent free or water based.

#### (c) Receipt & Storage of MDI

The MDI will be received in 200 litre steel drums. These drums will be off loaded from lorries and immediately transferred to the designated storage area within the factory. This is shown on Plan 1. The MDI drums will be stored inside because of the requirement to keep the material above 15°C to avoid crystallisation.

#### (d) Annual MDI Usage

This is estimated to be 46 tonnes. 1 tonne per working week ( $5 \times 200$  litre drums).

The maximum quantity stored at any one time will not exceed 4 tonnes ( $20 \times 200$  litre drums).

#### (e) Delivery of the MDI to the Production Process Machine

The 200 litre barrels will be taken to the production machine linked to the high pressure machine tank and pumper into the machine MDI tank on an automatic basis, i.e. as the machine tank drops in level by a set amount, sufficient MDI will be pumped in to regain the normal working tank level. Gases exhausted by the machine tank when filled will return to the filling barrel.

#### (f) Disposal of Waste Isocyanate

Waste isocyanate will be collected in sealed 200 litre steel drums and stored in the area shown on Plan 1.

Removal and disposal will be carried out in accordance with the Special Waste Regulations and the Environmental Protection Act requirements.

#### (g) Production Hours

The normal working hours proposed are Monday - Thursday (inc.) 07.30 - 16.30 Hours and Friday, 07.30 - 13.00 Hours.

#### 6. Plant Installation

This will be a new installation and process at Manor Park.

The exact date of installation at this point in time is not known.

7. List the Prescribed Substances (and any other substances which might cause harm) used in connection with or which might be released into the air resulting from the Prescribed Process

Di-isocyanate - MDI vapour.

No other substances used will fall into this category.

- 8. Describe the techniques to be used for preventing releases into the air of substances listed above, for reducing such substances to a minimum and for rendering harmless any such substances that are released
  - (i) The MDI will be delivered and stored in sealed 200 litre steel drums and kept in the area shown on Plan 1.
  - (ii) The MDI will be loaded into the machine tank using a sealed feed system. Air displaced from the machine tank during filling will be vented back to the fill drum. (See Figure 2).
  - (iii) Empty MDI drums will be sealed and stored in the area shown on Plan 1, awaiting treatment and disposal.

#### (iv) Spillage

Accidental spillage of MDI will be dealt with according to the MAC Spillage Procedure.

The spilt material is immediately absorbed and then neutralised with water. A trained crew will be responsible for spillage clearance.

#### (v) Abatement

No abatement of MDI vapour emission will be necessary. Measurements within the long established Marley Automotive Components, Lenham factory show less than 0.002 mg/m³ of MDI at foaming and during isocyanate handling operations.

#### (vi) Training

- (a) Only authorised and trained personnel will be permitted to handle MDI and work with plant associated with MDI storage and control.
- (b) The Company employ a Works Chemist with specific responsibilities relating to MDI systems, spillage and disposal.
  - (c) A nominated trained crew will deal with containment and disposal of MDI spillage.

## 10. Give details of the source, nature and amount of emissions to air from the process

#### A. MDI

#### Source 1 - Delivery and Storage of MDI

The MDI will be contained in 200 litre sealed steel drums and stored in the area shown on Plan 1. No emission of MDI is envisaged.

### Source 2 - Discharge of MDI from the steel drums into the production machine

The MDI will be pumped directly from the drums into the foam machine tank. Exhausted vapour, during filling, from the machine tank will be vented back to filling drum.

Any emission will only be from MDI at room temperature. Many years of testing at MAC Lenham have shown that less than 0.002 mg/m<sup>3</sup> of MDI can be expected. (Below determinable level of MDHS 25 and UE1 monitor techniques).

#### Source 3 - The Foaming Operation

Many years of monitoring with MAC Lenham factory has shown that MDI levels from the process do not exceed 0.002 mg/m³. This has been confirmed by independent monitoring consultants and the Health & Safety Executive.

The isocyanate on foam will not be sprayed and no aerosol effect will occur.

#### Source 4 - Accidental Spillage of MDI

Spilled material will only be at a temperature of below 30°C. No significant amounts of vapour will be emitted to atmosphere. Measurements at MAC Lenham show less than 0.002 mg/m<sup>3</sup> immediately above spilled material.

#### Source 5 - Empty Drums

These will be maintained in a sealed condition.

#### B. Non-Prescribed Materials

No volatile materials or those controlled by the Montreal Protocol will be used as part of the di-isocyanate process.

#### C. General

i

- (i) Any emission to air will be colourless, free from persistent mist, fume and free from droplets.
- (ii) MAC Lenham monitoring suggests that all emissions are free from offensive odour.

## 11. Give an assessment of the likely environmental consequences of the emissions to air

(i) MDI emissions - no detrimental consequence as MDI atmospheric levels within the factory and outside will be below standard test method determinable levels.

#### 12. What monitoring will be carried out of emissions to air

- (i) Ongoing routine internal (factory) monitoring, once every two months.
- (ii) External factory monitoring, once per annum.

## 13. What monitoring will be carried out of the environmental consequences of emissions to air

Olfactory and visual assessment of surrounding flora will be made on a six monthly basis.

#### 14. How will you monitor the techniques described in the answer to Question 9

(i) Routine inspection of drum stock MDI and handling equipment.

15. State how you will ensure that the objectives listed in Section 7(2) of the Environmental Protection Act 1990 will be achieved and how the condition implied in Section 7(4) of the Act will be complied with

Suitable receipt and storage of MDI as specified, careful handling, maintenance of plant and training of operators and supervision will ensure that the environmental impact of the operation is not significant.

16. <u>If you have proposals for improvements which might reduce emissions, please give details</u>

No improvements are envisaged as being necessary.

- 17. Give any other additional information which you would like to be taken into account by the Local Authority in considering your application
  - (i) Marley Automotive Components have long established di-isocyanate processes within its Lenham, Kent Factory. From our experience, as described above, the MDI vapour emissions will be in such small quantity that it is incapable of causing harm.

No volatile organic compounds, materials covered by the Montreal Protocol will be utilised and there will be no particulate emissions.

- (ii) We have no immediate intention of utilising the di-isocyanate process, however, would like process authorisation in order that we may utilise the process at relatively short notice as required.
- (iii) Please find additional information and isocyanate monitoring records for our Lenham site attached to my letter of 9th December, 1994 to Mr. Packard.

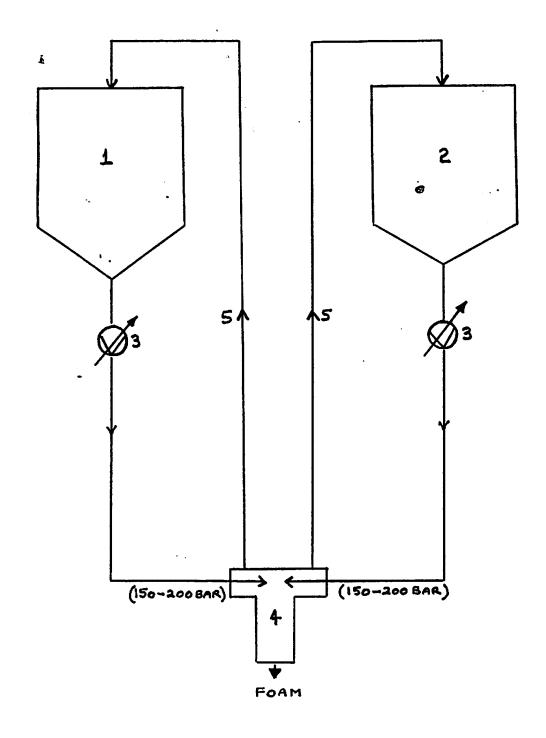
Fee enclosed - £ 990

I hereby certify that all the information contained in this application is, to the best of my knowledge, correct.

Signature	MR. JOHN BUCKLEY	•••••••••••••••••••••••••••••••••••••••
Date	5.5.95	

#### FIGURE 1

#### FLOW SCHEME OF A **HIGH PRESSURE MACHINE**



- 1. **MDI MACHINE TANK**
- POLYOL BLEND TANK .
- 2. 3. METERING PUMP (VARIABLE THROUGHPUT)
- 4. MIX HEAD FOR IMPINGEMENT MIXING
- 5. **RETURN LINE**

FIGURE 2 - LOADING OF MOI INTO MACHINE TANK

