



Environmental Health and Consumer Services

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4 Ednam Road, Dudley, West Midlands. DY1 1HW

Your ref: Our ref: Please ask for: Direct Dial No:

ENVIRONMENTAL PROTECTION ACT 1990, PART I

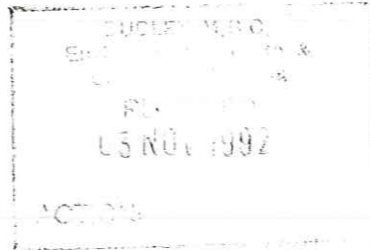
THE ENVIRONMENTAL PROTECTION (PRESCRIBED PROCESSES AND SUBSTANCES REGULATIONS 1991, SI [472]

THE ENVIRONMENTAL PROTECTION (APPLICATIONS, APPEALS AND REGISTERS) REGULATIONS 1991, SI [507]

APPLICATION FOR AUTHORISATION UNDER SECTION 6 OF THE ENVIRONMENTAL PROTECTION ACT 1990

1 Either Name and address of applicant\*

DELTA GBN LTD
LODGEFIELD ROAD
HALESOWEN
WEST MIDLANDS B62 8AX



OR Name, number and registered office of applicant company\* (if applicable)

.....
.....
.....
.....

\* the person/company who will operate the process, not, e.g. the person/consultant who is writing the application on the operator's behalf



2 Name and address of premises where process is or will be carried on  
(not applicable to mobile processes)

.....  
..... ( AS 1 ) .....  
.....  
.....

3 Address for correspondence if different from 1

.....  
..... ( AS 1 ) .....  
.....  
.....

4 List of maps or plans enclosed with the application showing the  
location of the premises where the process is or will be carried on

..... - PLAN OF LODGEFIELD ROAD SITE .....  
.....  
.....  
.....

Where the process is or will be carried on, on only part of the  
premises whose address is given at 2 above, either describe which  
part of the premises or list the plan(s) which identifies these parts

.....  
..... - PLAN OF LODGEFIELD ROAD SITE .....  
..... (process area highlighted) .....  
.....



5 List of attached documents comprising part of the application\*\*

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.....

(use continuation sheet if necessary)

\*\* Regulation 2 of the Environmental Protection (Applications, Appeals and Registers) Regulations 1991 requires that all applications must include the following information (for guidance on these requirements see General Guidance No.3 - 'Secretary of State's Guidance: Applications and Registers', HMSO, 1991):-

- description of the prescribed process
- description of the techniques to be used for preventing releases into the air of such substances, for reducing such substances to a minimum and for rendering harmless any such substances that are released
- list of prescribed substances (and any other substances) which might cause harm if released into air used in connection with or resulting from the prescribed process
- details of any proposed release of such substances into the air and an assessment of the environmental consequences
- proposals for monitoring any releases of such substances, the environmental consequences of any such release and the use of techniques for preventing, etc, releases
- the matters on which the applicant relies to establish that the objectives in section 7(2) of the Act will be achieved and that he will be able to comply with the conditions implied by section 7(4) of the Act

The applicant may also supply any other information he wishes the Local Authority to take into account in considering his application



Fee enclosed (cheques to be made payable to

Dudley Metropolitan Borough Council)

£.....900.....

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

..... (signature)

Managing Director..... (capacity of signatory)

25<sup>th</sup> September 1992..... (date)





DUDLEY METROPOLITAN BOROUGH  
ENVIRONMENTAL HEALTH & CONSUMER SERVICES

ENVIRONMENTAL PROTECTION ACT 1990 PART 1

APPLICATION - SECTION 5

i. Description of the prescribed process

The process is an anti-corrosion coating process. Components (bolts, nuts, screws, springs, small

Components are initially cleaned by one or more cleaning methods, these being a) solvent vapour alkali solution washing & c) abrasive methods (blasting). Of these only the first, solvent vapour releases a prescribed substance into the environment. Components require other treatments these are carried out on a contract basis from other companies.

After cleaning the components are coated by means of a spray operation. This involves placing components in a basket then immersed into a solvent based coating solution. The components are then removed from the liquid in nature. The components are then removed from the basket spun to remove excess material and the basket spun to remove excess material. The coating is then cured by means of a stoving operation. The process may be repeated to achieve a desired thickness.

ii. Description of techniques to be used for preventing the release of such substances, for reducing such substances to a minimum and for rendering harmless any such substances released.

With regard to solvent vapour cleaning the components, the government legislation for the phasing out of chlorinated hydrocarbons within the government is being followed and the replacement of such materials with accepted alternatives.

Delta coating materials fall broadly into two categories: a material known as Delta Tone which is a zinc based protective coating and secondly a material known as Delta Coat which relies upon a barrier effect for protection.

During the curing process all solvent content of the material applied to the components coated is vaporized off as volatile organic compounds (VOCs).

Delta Tone has undergone research and modification to reduce the solvent content of the material which has now been reduced from approximately 38% by weight to approximately 15%. This has a direct effect of reducing solvent (VOC) emissions to the atmosphere by some 55% for these materials.

ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460  
OFFICE OF PUBLIC AFFAIRS

FOR IMMEDIATE RELEASE

### Agency Announces New Method for Testing Air Pollution

The Environmental Protection Agency today announced a new method for testing air pollution. This method, known as the "gravimetric method," will allow for more accurate measurements of particulate matter in the air. The new method involves the use of a special filter that captures all the particles in a sample of air. The filter is then weighed, and the difference in weight before and after the sample is taken is a measure of the amount of particulate matter in the air. This method is more accurate than the current method, which only measures the amount of particulate matter that is captured by a standard filter.

The new method will be used to test air pollution in major cities across the country. The EPA is currently testing the method in several cities, and the results will be reported in the coming months. The new method is expected to be widely adopted by other agencies and researchers in the field of air pollution. The EPA is committed to providing the most accurate and reliable information possible on air quality, and this new method is a significant step in that direction.

The EPA is also working to improve the way air pollution is measured and reported. The agency is currently reviewing the way air quality is measured and reported, and is expected to release a new set of standards in the coming months. The new standards will be based on the most accurate and reliable information available, and will provide a more comprehensive picture of air quality.

The EPA is also working to reduce air pollution from major sources. The agency is currently reviewing the way air pollution is regulated, and is expected to release a new set of regulations in the coming months. The new regulations will be based on the most accurate and reliable information available, and will provide a more comprehensive picture of air quality. The EPA is committed to providing the most accurate and reliable information possible on air quality, and this new method is a significant step in that direction.

The EPA is also working to improve the way air pollution is measured and reported. The agency is currently reviewing the way air quality is measured and reported, and is expected to release a new set of standards in the coming months. The new standards will be based on the most accurate and reliable information available, and will provide a more comprehensive picture of air quality. The EPA is committed to providing the most accurate and reliable information possible on air quality, and this new method is a significant step in that direction.

Delta Seal, of which there are several types (colours, characteristics etc) contains 60 to 70% solvent. Research is currently underway to replace all Delta Seals with water based equivalents. A timescale for this is not yet available but it seems likely that this will be completed within the next 6 months. Solvent from Delta Seals account for some 50% of all VOCs currently exhausted to atmosphere

It is company policy, in line with government legislation, that all solid residue from the process be processed by licensed contractors within the scope of current law

iii. List of the prescribed substances (and any other substances) which might cause harm if released into the air used in connection with or resulting from the prescribed process

The material used in solvent vapour degreasing is 1,1,1 Trichloroethane

Delta Tone is a proprietary organic coating material containing zinc, resin-based bonding compounds and solvents. Of these only the solvents are emitted to atmosphere, the solvent constituent is made up of alcohols and aromatic hydrocarbons.

Delta Seal is also a proprietary organic coating material. It contains pigments, resin-based bonding compounds and solvent. Of these only the solvents are emitted to atmosphere, the solvent constituent is made up of alcohols and aromatic hydrocarbons.

iv. Details of any proposed release of such substances into the air and an assessment of the environmental consequences

The company currently release approximately 2400 kg of VOCs per year into atmosphere from the solvent vapour degreasing plant and, based on the most recent data available covering a four month span between March to June inclusive of this year, a further 4700 kg of VOCs per year from the curing stage of our coating process making a total of 7100 kg per year of VOCs emitted to atmosphere.

v. Proposals for monitoring any releases of such substances, the environmental consequences of any such release and the use of techniques for preventing, etc, releases

The company conduct highly accurate accounting of consumption of all materials on a monthly basis. In addition the company has accurate figures for the proportion of VOCs for each material. Consequently it is able to accurately calculate the weight of VOCs emitted each month.

The company believes that the most effective method of preventing release of prescribed substances is by research into materials which reduce or eliminate the content of such substances and this is the path currently being followed.



vi. The matters on which the applicant relies the objectives in section 7(2) of the Act will that he will be able to comply with the conditions section 7(4) of the Act

The existing objectives of the company are directed the objectives outlined in section 7(2) and in 7(4) i.e. that substances be eliminated or, where practical by use of best available techniques excessive cost (BATNEEC) to reduce such substances. These company objectives are outlined above.



TG/EKS/6157

Mr Glews

Dudley 452607

15 December 1992

Dear Sir

Re:- The Environmental Protection Act 1990, Part I.  
Authorisation of Prescribed Processes.

I write to confirm that your authorisation application to continue to operate a Coating Process has been accepted by Dudley M.B.C. and therefore can be considered as being 'duly made'.

The authorisation procedure now involves consulting the Health and Safety Executive and possibly the Nature Conservancy Council to allow them to comment on the application. There is a duty upon the applicant ie. yourselves, to advertise the authorisation application in a local newspaper. The advertisement must be placed in the press on a single occasion before six weeks has elapsed from the initial application which was made on the 3 December 1992.

The advertisement must contain the following information:-

- i) name of applicant.
- ii) address of premises where the process will be carried on.
- (iii) a brief description of the nature of the process.
- (iv) address of the location where the application may be inspected.
- (v) a statement to inform the public that there is no fee to inspect the application information.
- (vi) a statement to the effect that written representations to the L.A. within 28 days of the publication of the advertisement will be taken into consideration.
- (vii) the address to which representations should be sent.

I have enclosed a specimen advertisement which contains the information listed below.

It is also necessary for you to inform me at least one week in advance of the publication of the advertisement, which newspaper the advertisement will appear in and on which date, and to provide me with a copy of the advertisement as soon as possible after publication has occurred.

cont/d.....

Delta G.B.N. Limited  
Lodgefield Road  
Halesowen  
West Midlands





Delta G.B.N.Limited

15 December 1992

Once the application has been advertised and the statutory representation reply period has elapsed I can begin to write the process authorisation, at that time I will contact you again to arrange a further visit to your premises to examine the processes to be authorised in further detail.

I look forward to hearing from you in the near future, if you have any queries please do not hesitate to contact me.

Yours faithfully

pp 

T Glews  
Principal Environmental Health Officer  
(Environmental Protection)

Encl:





VAT Reg. No. 281 2209 800

N<sup>o</sup>

72100117114507789003

Department

RECEIVED from Delta GBN Ltd  
Lodgefield Road, Halesowen, B62 8AX  
in respect of EPA 1990 Prior Authorisation

the sum of Nine Hundred pounds  
— pence

Signed

P. Danks

VAT — %

date 3/11/92

TOTAL £

900—00
—
900—00

\*Cheque/

\*Delete as applicable



P

DL/EKS/5771

Mr Leyshon

Dudley 452605

5 November 1992

Dear Sir

The Environmental Protection Act 1990, Part 1.  
Delta GBN Limited, Lodgefield Road, Halesowen.

Thank you for your application for authorisation to operate a Block 3 coating process. I have examined the application and it is necessary for you to provide additional information before I am able to accept your application as "duly made".

Included is a list on which I have highlighted areas which you need to address. In addition to this please provide details of your curing process to include make of oven, fuel, temperatures, residence time, cooling cycle arrestment etc.

I have returned your plan in order that you can include the height locations of stacks and vents serving the process, this information should also be contained in the body of the application in the form of a list.

The cheque included with your application will not be cashed until I have received the additional information.

If you have any queries, please do not hesitate to contact me.

Yours faithfully



D Leyshon  
Technical Officer  
(Environmental Protection)

Encl:

Delta GBN Limited  
Lodgefield Road  
Halesowen  
West Midlands  
B62 8AX



P

DL/EKS/5938

Mr Leyshon

Dudley 452605

24 November 1992

Dear Sir

Re:- The Environmental Protection Act 1990, Part 1.  
Authorisation of Prescribed Processes - Block 3.  
Delta GBN Limited, Lodgefield Road, Halesowen, West Midlands, B62 8AX.

I refer to my letter of 5th November 1992 requesting additional information, with regard to a Block 3 process operated by your company, to enable your application to be 'duly made'.

I have not, to date, received any correspondence in reply to my letter.

I would remind you that on summary conviction at a Magistrates Court the maximum penalty for operating a prescribed process without an application which has been 'duly made' is a fine of up to £20,000 and up to 2 years imprisonment for the operator of the process.

I look forward to receiving the requested information in the near future which will enable your application to be 'duly made'.

If you have any queries please do not hesitate to contact me.

Yours faithfully



D Leyshon  
Technical Officer  
(Environmental Protection)

Delta GBN Limited  
Lodgefield Road  
Halesowen  
West Midlands  
B62 8AX  
FAO The Managing Director







**DELTA GBN LTD**

*Specialists in Anti-Corrosion Surface Treatments*  
Lodgefield Road, HALESOWEN, West Midlands B62 8AX  
Telephone: 021 561 1221 Fax: 021 561 3927

Dudley Metropolitan Borough  
Environmental Health & Consumer Services  
4, Ednam Road,  
Dudley,  
West Midlands,  
DY1 1HW

Date 2nd December 1992

Our Ref RED/SAL

Your Ref :

For the attention of Mr. D. Leyshon,

Dear Mr. Leyshon,

Further to your letter 5th November, and your follow up letter 24th November, I have pleasure in enclosing herewith, the information that you require, which I trust will enable you to process our application.

Yours sincerely,  
for Delta GBN Ltd.

R.E. Davies  
Director and General Manager.





The Environmental Protection Act 1990, Part 1

Delta GBN Ltd, Lodgefield Rd, Halesowen

2. Delta GBN Ltd has been at this site since 1985 at which point it started sampling its finish to potential customers. The resulting orders have increased the company's usage of material at an initially slow but now rapidly increasing rate.

The process carried out involves coating various components (bolts, nuts, screws, springs, small pressings etc) with organic coating materials known collectively as Delta coatings. The method of coating involves precleaning of components followed by a dip/spin process, the resultant coating is then heat cured.

The basic layout of the building is of production areas at the centre of the building with storage and warehouse areas either side of this and offices to the front and rear. There are parking areas to front and rear and a driveway to the side. Areas to the right of the production area indicated on the enclosed plan (with the exception of the paint store) are utilised by GBN Group companies (sister companies).

The surrounding land to either side and rear is used for industrial purposes with residential properties to the front on the opposite side of Lodgefield Rd.

3. The company buys and stores all currently available Delta coating materials together with degreasing solvent and a bonding agent. Delta materials are brought in from overseas and arrive in 25, 30 or 40 kg sealed metal containers which are palletised and shrink-wrapped. Degreasing solvent is received in 200 litre metal containers and Delta Met bonding agent in plastic 25 litre containers. All fresh stocks are stored inside the building with the organic Delta coating materials being stored within an explosion-proof paint store.

Working stock materials are contained in vats which, except when in use, are kept covered.

Waste materials are stored externally in metal containers. As much of the existing waste material is quite recent, due to the exponential growth in material consumption, there is no history of disposal. However this is now being addressed and plans are in hand to deal with this on an annual basis in future. There is waste of all the above materials. The organic Delta materials form waste in two types; dry material which is cured and in dry flake form, this has no volatile organic compound (VOC) content, and a sludge which is semi-polymerised material which does have VOC content. Current waste levels of these materials are estimated at approximately 2.5 tonnes. Degreasing solvent is 1,1,1 Trichloroethane, waste material is 1,1,1 Trichloroethane with large percentages of machine oil dissolved into it forming a low-viscosity slurry. Current waste levels of this material is estimated at approximately 600 kg. Delta Met bonding agent is a hexavalent chrome based material. This material may be chemically treated on-site to remove the water constituent which accounts for greater than 80% of the waste. The resultant slurry is neu-

The Environmental Protection Act 1990, Part 1

Delta GEM Ltd, Lohgoff Rd, Halesowen

Delta GEM Ltd has been at this site since 1985 at which time it started supplying its finish to potential customers. The finishing orders have increased the company's usage of materials as an initially slow but now rapidly increasing rate.

The process carried out involves coating various components (bolts nuts screws, springs, small precision steel with organic coating materials known collectively as Delta coatings. The method of coating involves preheating of components followed by a dipping process, the resultant coating is then heat cured.

The basic layout of the building is of production areas at the centre of the building with storage and warehouse areas either side of this and offices to the front and rear. There are parking areas to front and rear and a driveway to the side. Areas to the right of the production area indicated on the enclosed plan (with the exception of the paint store) are utilized by Delta GEM company (later companies).

The surrounding land to either side and rear is used for industrial purposes with residential properties to the front on the opposite side of Lohgoff Rd.

3. The company buys and stores all currently available Delta coating materials together with degreasing solvent and a bonding agent. Delta materials are brought in from overseas and arrive in 25, 30 or 40 kg sealed metal containers which are palletized and shrink-wrapped. Degreasing solvent is received in 200 litre metal containers and Delta Met bonding agent in plastic 25 litre containers. All fresh stocks are stored inside the building with the organic Delta coating materials being stored within an explosion proof paint store.

Working stock materials are contained in vats which, except when in use, are kept covered.

Waste materials are stored externally in metal containers. As much of the existing waste material is quite recent due to the exponential growth in material consumption, there is no danger of disposal. However this is now being addressed and plans are in hand to deal with this on an annual basis in future. There is waste of all the above materials. The organic Delta materials form waste in two types; dry material which is cured and in the flake form, this has no volatile organic compound (VOC) content and a residue which is semi-polymerized material which does have VOC content. Current waste levels of these materials are estimated at approximately 2.5 tonnes. Degreasing solvent is 1.1 tonnes, trichloroethane, waste material is 1.1 tonnes, trichloroethane with large percentages of machine oil dissolved into it forming a low viscosity slurry. Current waste levels of this material is estimated at approximately 600 kg. Delta Met bonding agent is hexavalent chrome based material. This material may be chemically treated on-site to remove the water content which accounts for greater than 90% of the waste. The resultant slurry is then

tralised by the treatment and is non-hazardous. Current waste levels of this material (in its untreated form, which therefore still contains a large percentage of water) is estimated at approximately 2.5 tonnes.

4. The question of continuous or batch processing must be split between various stages of the process. The question of maximum throughput is entirely dependent on the type of component being processed and its geometry. The throughput figures given are based on a component having a very high weight/volume ratio (ie a component that packs very densely), due to the large variation of types of component processed this is not always typical. Please note that the throughput figures given relate to the load capacity of each machine, however a component may be required to pass through that machine several times before it is deemed to be finished.

It is not possible to give a figure of material consumption per tonne of finished component as different components have different finishes applied to them, and in some cases, combinations of finishes. However it is possible to supply material consumption (and hence solvent consumption) figures on a monthly basis

Pretreatment processes include:

Solvent degrease: machinery is electrically powered, production is of batch type, batch loading typically 100 kg over a 10 minute period.

Hot wash: machinery is electrically powered, production is of continuous type, throughput typically 200 kg per hour.

Shotblast: two machines, both electrically powered, both of batch type production, throughput entirely dependent upon degree of scale/dirt etc on component which dictates cycle time.

Beadblast: machinery is air powered, production is of batch type, throughput as per shotblast equipment.

Treatment of a specific batch of components will usually involve the use of one or more of the above processes but not all of them

Coating processes include:

Centrifuge 1: machinery is air powered, production is of batch type, throughput typically 100 kg over a 5 minute period.

Centrifuge 2: machinery is electrically powered, production is of batch type, throughput typically 100 kg over a 5 minute period.

Centrifuge 3: machinery is electrically powered, production is of batch type, throughput typically 25 kg over a 3 minute period.

Curing processes include:

Conveyorised oven: conveyors electrically powered, heater gas powered, production is of continuous type, throughput typically 1.5 tonnes per hour.

finished by the treatment and is non-hazardous. Current estimates of this material in its untreated form which therefore still contains a large percentage of water is estimated at approximately 2.5 tonnes.

The question of continuous or batch processing must be dealt between various stages of the process. The question of whether throughput is entirely dependent on the type of component being processed and the necessary throughput figures given are based on a component having a very high weight/volume ratio. It is a component that packs very densely. Due to the large variation of types of component processed this is not always typical. It is noted that the throughput figures given relate to the feed rate of each machine, however a component may be required to pass through that machine several times before it is deemed to be finished.

It is not possible to give a figure of material consumption per tonne of finished component as different components have different finishes applied to them, and in some cases, combinations of finishes. However it is possible to supply material consumption (and hence solvent consumption) figures on a monthly basis.

#### Treatment processes include:

Solvent degreaser: machinery is electrically powered, production is in batch type, batch loading typically 100 kg over a 10 minute period.

Hot wash: machinery is electrically powered, production is in continuous type, throughput typically 200 kg per hour.

Shotblast: two machines, both electrically powered, both of batch type production, throughput entirely dependent upon diameter of scale/dirt etc on component which dictates cycle time.

Shotblast: machinery is air powered, production is of batch type throughput as per shotblast equipment.

Treatment of a specific batch of components will usually involve the use of one or more of the above processes but not all of them.

#### Coating processes include:

Centrifuge 1: machinery is air powered, production is of batch type, throughput typically 100 kg over a 5 minute period.

Centrifuge 2: machinery is electrically powered, production is in batch type, throughput typically 100 kg over a 5 minute period.

Centrifuge 3: machinery is electrically powered, production is in batch type, throughput typically 25 kg over a 5 minute period.

#### Other processes include:

Conveyors and hoists: conveyors electrically powered, hoists air powered, production is of continuous type, throughput typically 1.5 tonnes per hour.

Box oven: heater electrically powered, production is of batch type, throughput typically 600 kg over a 45 minute period (please note that these figures relate to the screw example given above, however screws are never cured in this oven)

Please note that the above figures relate to maximum capacity for a high density component and take no account of lower density components or any requirement for a separating gap between different batches of components.

5. There are three extraction fans and four stacks situated throughout the production area and these are noted on the enclosed plan.

The three extraction fans are labelled E1, E2 & E3 and are sited at the roof apex above the coating area. They are equidistant and are all at a height of 17 feet above the factory floor.

The first of the four stacks, marked S1, serves the solvent degreaser. The top of the stack is 23 feet from the factory floor.

The second of the four stacks, marked S2, serves the Box oven. The top of the stack is 23 feet above the factory floor.

The third and fourth stacks, marked S3 & S4 respectively, serve the conveyorised oven. The top of stack S3 is 23 feet above the factory floor and the top of stack S4 is 23 feet above the factory floor.

6. The extraction units serving to remove substances are fans driven by simple motors. As such it is not practical to require specific maintenance other than when the unit fails to operate.

7. New employees are not permitted to operate machinery without qualified supervision and are put on a probationary period until such time as they are considered qualified. An employee is not considered qualified until he/she has passed a written test. The basis of this test is a series of questions relating to machinery operation, basic troubleshooting etc.

8. The primary potential cause of a buildup of emissions would come from failure of stacks S3 & S4 which serve the conveyorised oven. These stacks contain extraction units to remove emissions from coated components undergoing curing. The control configuration is such that, should any area under control, including the extraction units, fail the whole oven would then automatically shut down.

9. There are no cleaning procedures employed specifically to minimise fugitive emissions. Spillages are cleaned up as quickly as possible using an absorbant media which is then stored with other waste products externally awaiting disposal. Fugitive emissions from movement of materials are minimised by keeping such materials covered as much as possible.

10. The only arrestment equipment on site is an integral part of the solvent degreasing plant. The principle of operation of this

Four event heater electrically powered, production is of batch type. Throughput typically 600 kg over a 45 minute period (please note that these figures relate to the screw example given above however screw are never used in this event)

Please note that the above figures relate to maximum capacity for a high density component and take no account of lower density components or any requirement for a separating gap between adjacent batches of components.

5. There are three extraction fans and four screw extruders throughout the production area and these are listed on the closed plan.

The three extraction fans are labelled E1, E2 & E3 and are situated at the roof above the coating area. They are equidistant and are all at a height of 17 feet above the factory floor.

The first of the four stacks, marked S1, serves the solvent department. The top of the stack is 23 feet from the factory floor.

The second of the four stacks, marked S2, serves the box department. The top of the stack is 23 feet above the factory floor.

The third and fourth stacks, marked S3 & S4 respectively, serve the conveyorised oven. The top of stack S3 is 23 feet above the factory floor and the top of stack S4 is 23 feet above the factory floor.

6. The extraction units serving to remove emissions are driven by simple motors. As such it is not practical to conduct specific maintenance other than when the unit fails to operate.

7. New employees are not permitted to operate machinery without qualified supervision and are put on a probationary period until such time as they are considered qualified. An employee is not considered qualified until he/she has passed a written test. The basis of this test is a series of questions relating to machinery operation, basic troubleshooting etc.

8. The primary potential cause of a building of emissions would come from failure of stacks S3 & S4 which serve the conveyorised oven. These stacks contain extraction units to remove emissions from coated components undergoing curing. The control configuration is such that, should any area under control, including the extraction units, fail the whole oven would then automatically shut down.

9. There are no cleaning procedures employed specifically to minimise fugitive emissions. Spillages are cleaned up as quickly as possible using an absorbent media which is then stored with other waste products externally awaiting disposal. Further emissions from movement of materials are minimised by ensuring such materials covered as much as possible.

10. The only treatment equipment on site is an integral part of the solvent recovery plant. The principle of operation of this



process is to heat the solvent to a vapour which then dissolves oil/grease on components lowered into the vapour. Towards the top of this machine there are condenser coils which condense vapour back into a liquid before it reaches the top of the machine. Where vapour escapes these coils there is a rim extraction unit which is then served by stack S1 on the enclosed plan. The substance arrested by this equipment, as noted before, is 1,1,1 Trichloroethane. With regard to efficiency, whilst the equipment is switched on but not in use the condenser coils are completely effective. When in use the efficiency of this system is rather harder to ascertain due to various factors such as shape of component and speed of removal of work however I would draw your attention to the answer to question 13.

11. There are two chemicals that are defined as prescribed (as in they have assigned exposure limits under the COSHH Regulations).

The first of these is 1,1,1 Trichloroethane, which is used on its own in the solvent degreaser. This machine, together with its stack (S1) is the only source of emission of this material on site

The second is 1,2 Methoxypropanol, this is a constituent of the coating material and possible sources of emission are uncovered vats of coating material and curing oven stacks (S2, S3 & S4).

13. Monitoring for 1,1,1 Trichloroethane has been conducted. This has been by means of personal diffusion tubes. These tubes have been carried by operatives and also strategically placed around equipment. Tubes carried by personnel have showed negligible readings. As a measure of the efficiency of the condensing coils and rim extraction on the solvent degreaser the tube placed near this (some 15 inches horizontally from the top edge) showed a reading of only 50 ppm (COSHH Regulations MEL is 350 ppm)

Monitoring for 1,2 Methoxypropanol has proved difficult as tests to date have been masked by non-prescribed substances also present in the coating material.

Delta GBN Ltd will, if necessary, carry out any monitoring at a future date as and when required by the conditions within the authorisation.

14. One type of material, Delta Tone, has recently undergone a significant reduction in the amount of its VOC content which has been reduced from approximately 38% to 17% by weight, a reduction in VOC content of 55%. This material is the single most used material currently employed by our existing processing pattern.

The other type of Delta coating material, Delta Seal, of which there are several variations, is currently under research and development to convert them from solvent- to water- based solutions.

15. The company has, in the past, received complaints from nearby residents who have approached Dudley Environmental Health and Consumer Services. Upon random inspection visits to both the source of complaint and the more immediate vicinity your officer,

process in to heat the solvent to a vapor which then directly  
all'vases or components lowered into the vacuum. Towards the top  
of this machine there are condenser coils which condense vapors  
which later in the machine. Where vapors condense these coils there is a fan extraction unit  
which is then carried by a fan on the enclosed glass. The fan  
is actuated by this equipment, as noted before. At 11:15  
the switch was put on in use the condenser coils are completely  
effective. When in use the efficiency of this system is rather  
harder to ascertain due to various factors such as change in  
component and speed of removal of vent however I would draw your  
attention to the answer to question 13.

11. There are two chemicals that are defined as prescribed (as in  
they have assigned exposure limits under the OSHA Regulations.  
The first of these is 1,1,1-Trichloroethane, which is used on the  
own in the solvent degreaser. This machine, together with the  
etch (21) is the only source of emission of this material in  
this area.

The second is 1,2-Dichloropropane, this is a constituent of the  
coating material and possible sources of emission are unknown.  
Data of coating material and curing oven stacks (22, 23 & 24).

12. Monitoring for 1,1,1-Trichloroethane has been conducted. This  
has been by means of personal diffusion tubes. These tubes have  
been carried by operatives and also existentially placed around  
equipment. Tubes carried by personnel have shown negligible  
readings. As a measure of the efficiency of the condensing coils  
and the extraction on the solvent degreaser the tube placed near  
this (some 15 inches horizontally from the top edge) showed a  
reading of only 50 ppm (OSHA Regulation MPP is 100 ppm).

Monitoring for 1,2-Dichloropropane has proved difficult as tests  
to date have been masked by non-prescribed substances also present  
in the coating material.

OSHA 624 will, if necessary, carry out air monitoring at  
future date as and when required by the conditions within the  
substation.

14. One type of material, Delta Tone, has recently undergone  
significant reduction in the amount of its VOC content which has  
been reduced from approximately 30% to 15% by weight, a reduction  
in VOC content of 50%. This material is the single most  
material currently employed by our existing processing patterns.

The other type of Delta coating material, Delta Seal, of which  
there are several variations, is currently under research and  
development to convert them from solvent- to water-based  
systems.

If the company had, in the past, received complaints from  
residents who have reported Badly Environmental Health  
Council. Upon taking inspection visits to both  
sources of complaint and the most likely cause of the problem.

Mr S.G. Roach, could not detect cause for complaint. However, as a responsible company, we have raised the heights of our stacks to their current levels so that, in the event that the company was responsible for any cause of complaint, this would be lessened. We have not received any further complaints since doing this.

Additional Information - Curing Process

Conveyorised Oven: Manufacturer - JKL Engineering Ltd

Heater is gas fired

Temperature control is variable but nominally set at 230 C to achieve metal temperature of 200 C

Throughput time is typically 20 minutes

Cooling is handled by return conveyors and takes about 20 minutes.

Box Oven : Manufacturer - Treniboard Ltd

Heater is electrically powered

Temperature control as per conveyorised oven

Throughput time typically 45 minutes

Components are left to stand to cool

Mr. G.C. Koch, could not be reached for comment. In addition, we have advised the holders of our stock to their current levels so that, in the event the company was responsible for any cases of complaint, this would be limited. We have not received any further complaints since this.

Additional Information - Curing Process

Conveyer Oven - Manufacturer - KIL Engineering Ltd

Heater is gas fired

Temperature control is variable but normally set at 230 C to achieve metal temperature of 200 C

Throughput time is typically 20 minutes

Cooling is handled by return conveyer and takes about 10 minutes

Box Oven : Manufacturer - Technibond Ltd

Heater is electrically powered

Temperature control as per conveyer oven

Throughput time typically 45 minutes

Components are left to stand to cool

Area Director: P WARD



Engineering & Metal Goods  
(West) Group

Chief Environmental Health Officer  
Dudley Metropolitan Borough Council  
Environmental Health and Consumer Services  
4 Ednam Road  
DUDLEY  
West Midlands DY1 1HW

Our ref: Gp09/BM/KOS

Dear Sirs

**ENVIRONMENTAL PROTECTION ACT 1990 PART 1: AUTHORISATION FOR  
ANTI-CORROSION COATING PROCESS**

Thank you for consulting the Health and Safety Executive about the above application for anti-corrosion coating process at Lodgefield Road, Halesowen, West Midlands B62 8AX submitted by Delta G.B.N. 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 1988 (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, published annually by HMSO.

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

A handwritten signature in black ink, appearing to read 'B Massey', written in a cursive style.

B MASSEY  
HM Principal Inspector of Factories



Area Director: P WARD

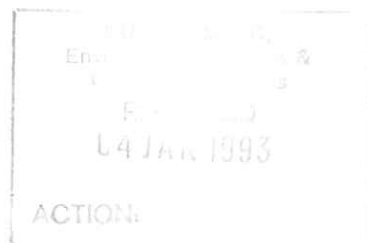


Engineering & Metal Goods  
(West) Group

Chief Environmental Health Officer  
Dudley Metropolitan Borough Council  
Environmental Health and Consumer Services  
4 Ednam Road  
DUDLEY  
West Midlands DY1 1HW

Our ref: Gp09/BM/KOS

29 OCT 1992



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B MASSEY  
HM Principal Inspector of Factories





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TG/EKS/6158

Mr Glews

Dudley 452607

15 December 1992

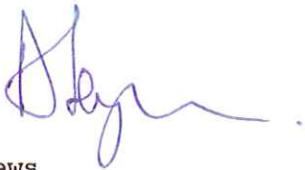
Dear Sir or Madam

**Re:- The Environmental Protection Act 1990, Part I.**  
**Authorisation of Prescribed Processes**  
**Delta G.B.N. Limited, Lodgefield Road, Halesowen.**

I enclose a photocopy of the authorisation application documentation appertaining to the above company. The application was received by this Department on the 3 December 1992 and in accordance with the Secretary of States guidance this Department will consider any representations received from you within 28 days of your receipt of this notification.

If you have any queries please do not hesitate to contact me.

Yours faithfully

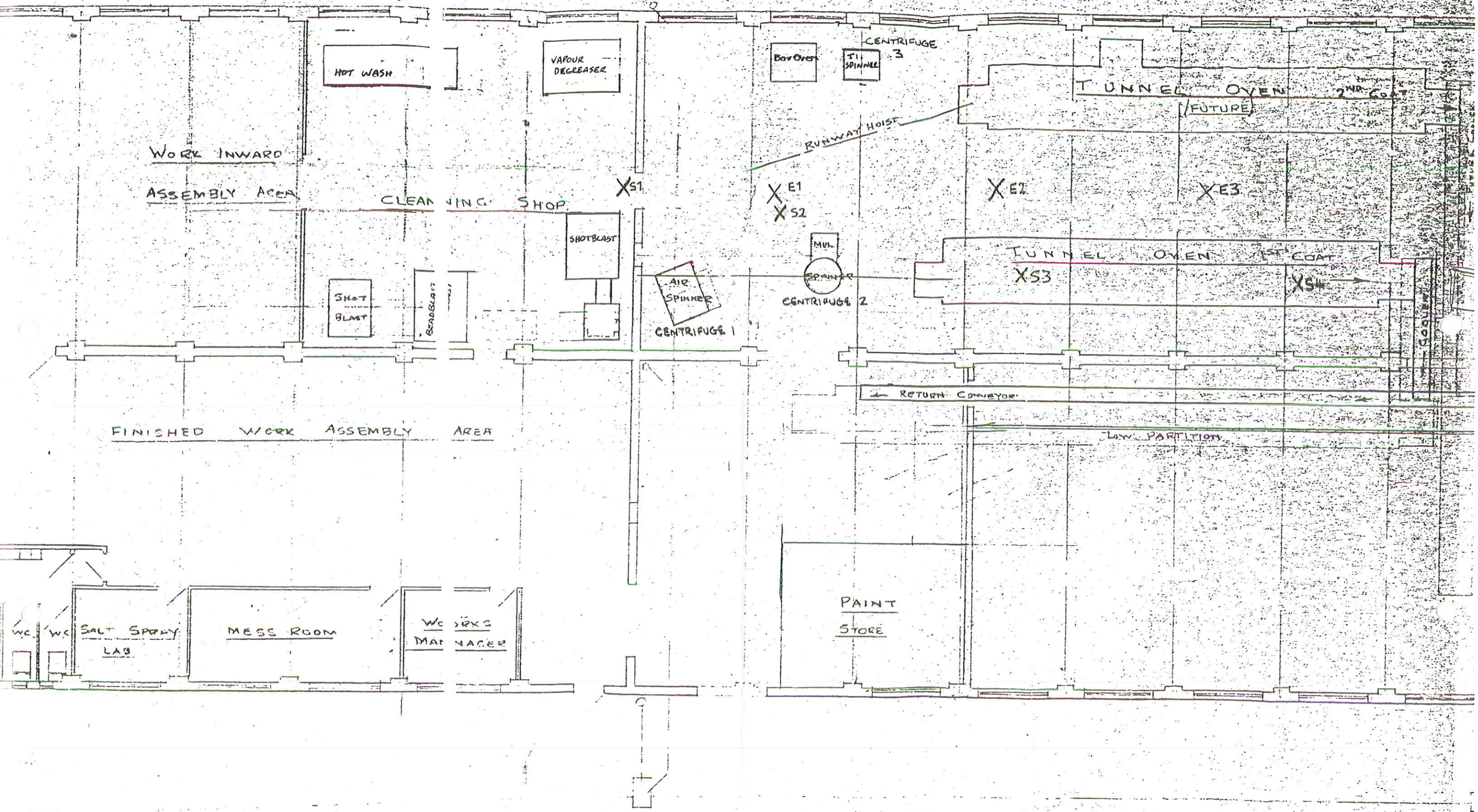
pp 

T Glews  
Principal Environmental Health Officer  
(Environmental Protection)

Encl:



PLAN (P2)





PLAN (P1)



WEST MIDLANDS COUNTY  
 SO 8685 SW  
 WARLEY No 3 ED  
 CRADLEY HEATH AND OLD HILL WAR

