XXXX Council

PERMIT– EPR 2010/PG6/2
PERMIT NUMBER XX/XXX/VN1

POLLUTION PREVENTION & CONTROL ACT 1999
ENVIRONMENTAL PERMITTING (England & Wales) REGULATIONS 2010

ACTIVITIES AND INSTALLATION	**Manufacture of Timber & Wood Based Products** **XXX** **XX** **X**
. **CURRENT OPERATOR AND REGISTERED OFFICE**	**XXXX** **XX** **XX** **X** **Company No. XXXXXX**
PREVIOUS OPERATOR (if any)	
Date of Application or Transfer under IPPC	**21 August 2003**
Date of Permit	**19th December 2003**
Dates of Variations	**31 March 2006**
	19 December 2011
Date of Surrender or Transfer	

Document A

XXXX COUNCIL

POLLUTION PREVENTION & CONTROL ACT 1999
ENVIRONMENTAL PERMITTING (England & Wales) REGULATIONS 2010

Date : 19th December 2011

Permit ref. no. : XX/XXX/VN1

XXXX of XXXXXX XXXX is hereby permitted to carry on a Manufacture of Timber and Wood Based Products activity, within the installation boundary as marked in red on the attached plan (Plan 2),

And

using those process units and plant and on those parts of the site detailed in the applications and in accordance with the description in the applications, summarised on pages 3 and 4, as amended by and subject to any conditions in this permit document

SCOPE

This Permit of 18 pages comprises documents A, B and C, plans 1, 2 & 3, and Appendices 1 and 2.

i. The Permitted Activities comprise the whole process including the treating, handling and storage of any materials used in and products and wastes produced by the activities.

ii. All pollutant concentrations shall be expressed at reference conditions of 273K and 101.3kPa, without correction for water vapour content.

Date Annual Fee Required:	1st April
Date for Full Compliance:	19th December 2011
Main Reference Process Guidance Note	PG6/2 (04),
Other Reference Process Guidance Notes	PG6/33 (11) (draft), PG1/12 (04)

ADDRESS OF PERMITTED PROCESS

XXXXX
XXXX
XX

Document B

DESCRIPTION OF INSTALLATION

The Permit is for an installation which carries out one main activity regulated under Schedule 1, Part 1, Section 6.6 of the Pollution Prevention & Control (England & Wales) Regulations 2010; The Manufacture of Timber and Wood Based Products. There are also two technically linked activities, a wood coating activity and a wood waste burning activity.

A TIMBER ACTIVITY

The timber activity comprises the manufacture of timber products involving the sawing, drilling, sanding and shaping of wood with a throughput exceeding 1000 cubic metres of timber per annum. The activity includes the use of solid timber which is turned into various sizes using joinery machinery, the manufacture of traditional joinery such as window frames, and the manufacture of veneered doors, doorframes and associated joinery items.

A variety of plant is used in the activity including cross cut and rip saws, a band saw, planers moulding machines and sanders. Emissions from the plant are extracted from local extraction points via ducting to a XXXX 4X9 cyclo-filter unit. This unit cyclonically separates 95% of particulates with the remaining air and particles passing through a filter unit where almost all the remaining particles are removed. The exhaust air from the unit is either returned to the inside the building or emitted to air from 2 stacks marked T1 and T2 on the Plan 3.

Emissions from this activity are almost entirely **particulates**.

B. Wood Waste Burning

The waste burning activity uses waste chippings and sawdust from the timber activity. This is extracted by the cyclo-filter and fed into the wood waste burner for the production of heat for the premises. It includes wood offcuts which are chipped in a Gross GZ 82 chipper.

Wood wastes extracted by the cyclo-filter are stored in a bulk silo below the extraction unit. This wood waste forms the fuel for a XXXX RHA250 wood waste burner, which is used to provide heat for the premises and to reduce waste volume. The burner is rated at 0.3MW with a maximum capacity of 81kg/hr. Fuel is automatically conveyed from the bulk storage silo via a screw conveyor into the main combustion chamber where it is burnt at around 950^{o}C. Hot flue gases then pass through a secondary heat exchanger. Emissions from the burning are drawn by a flue gas fan through a cyclonic grit arrester to remove solid particulate matter and then pass up a 12m high chimney stack, marked W1 on Plan 3, where they are emitted to air.

Emissions from the activity are primarily **particulates** and **oxides of carbon** and **nitrogen**.

C. Coating

Some timber products are coated on site on site using primers, lacquers and varnishes to produce the required finish surface effect. This coating uses less than 5 tonnes per annum of volatile organic compounds but is technically linked to the preceding timber activity. Coating is applied by roller coating or hand spraying.

Roller Coating
Lacquer is applied to doors/panels via a XXXXX Profi-coater PFC S1400 and SGC 1400, marked R1 on Plan 3. The coater uses a rubber roller to apply the lacquer, with unused lacquer being returned to the lacquer container. There is no direct emission to air from this unit. The lacquer is cured using ultra violet light from a mercury lamp. Emissions from curing are of warm air only.

Hand Spraying
There are 3 spray rooms/booths.
2 spray rooms are on the ground floor, marked S1 and S2 on Plan 3, with one smaller spray room on the mezzanine floor marked S3.

The main spray room/booth, marked S1 is used to apply thin layer topcoats on large items such as finished doors. The booth is a dry backed booth with a 3-layer paper filter unit. Emissions from the spray booth are extracted to air via 2 stacks each 1.2m above adjoining roof level, marked V1 and V2 on Plan 3.

The smaller ground floor spray room, marked S2, is used for applying basecoats and topcoats to smaller wood products. The booth is a dry backed booth and emissions from the spray room are extracted to air via 2 stacks 2m above roof level, marked V3 and V4 on Plan 3.

The mezzanine floor spray room/booth, marked S3, is used for applying basecoats and topcoats to small wood products. The booth is a dry backed booth and emissions are extracted to air via one stack 1m above roof level, marked V5 on Plan 3.

Air assisted airless spray guns are used for the hand spraying in the smaller rooms/booths, S2 and S3, whilst a Devilbis JKA spray gun is used in the large spray room/booth S1.

Emissions from the activity are primarily **volatile organic compounds** and **particulates**.

Document C

CONDITIONS

All conditions apply from date of Permit Variation unless otherwise indicated

EMISSIONS LIMITS AND CONTROLS

ALL PLANT/INSTALLATION

1. All emissions to air, other than steam or water vapour, must be colourless.

2. All emissions to air from abatement plant stacks must be free from persistent fume, mist, and free from water droplets.

3. For the purposes of condition 1 and 2, all emissions to air shall be taken to mean emissions from any opening within the area outlined in red on plan 2.

4. There shall be no persistent visible emission from within any part of the installation boundary marked in red on plan 2

5. There shall be no offensive odour as perceived by an Authorised Officer of the Council beyond the installation boundary marked in red on plan 2.

6. The concentration of sulphur in the fuel oil that is burnt in the heating and boiler plant serving the premises shall not exceed 1% wt/wt, except where gas oil is used when the sulphur concentration shall not exceed 0.1% wt/wt.

TIMBER ACTIVITY

7. Emissions from the XXXX Cyclo-filtration plant shall be returned to the building or either discharged directly to atmosphere through the two 7.1m high stacks marked T1 and T2.

8. Emissions from the XXXX Cyclo-filtration plant shall in normal operation be free from visible emissions.

WOOD WASTE BURNING

9. Emissions from the wood waste burning activity shall only be discharged to atmosphere from the 12m high stack marked W1.

10. Emissions from the wood waste burning activity, shall in normal operation be free from visible smoke and in any case must not exceed the equivalent of Ringelmann Shade 1 as described in BS2742 1969.

COATING ACTIVITY

11. Emissions from the spray rooms/booths marked S1, S2, and S3 on plan 3, shall only be discharged to atmosphere from the stacks marked V1, V2, V3, V4 and V5 on plan 3.

12. Emissions from the stacks serving the spray rooms/booths shall in normal operation be free from visible emissions.

13. Spray coatings shall be applied by a method designed to minimise overspray and maximise transfer efficiency such as High Volume Low Pressure spray guns, Air Assisted Airless, or any other system capable of achieving a transfer efficiency of at least 65%

MONITORING, SAMPLING AND MEASUREMENT OF EMISSIONS

14. Visual assessments of emissions from the entire installation, the boundary of which is marked in red on plan 2, shall be made at least twice per day, including emissions resulting from the loading and unloading of vehicles, and the internal transport of stockpiles. Records of visual assessments shall be recorded and retained with the logbook required in condition 21 for 2 years.

15. Oil supplied as fuel to the installation for use in the heating and boiler plant shall be certified by the supplier regarding the sulphur content. Supplier certificates shall be retained with the logbook for 2 years

TIMBER ACTIVITY

16. Visual assessments of emissions from the XXXX cyclo-filter unit shall be carried out at start up and at least twice a day while the unit is operating, unless continuous indicative particulate monitors are installed and operating as per condition 17. Records of visual assessments shall be recorded and retained with the logbook required in condition 21 for 2 years.

17. Where continuous indicative particulate matter monitors are fitted, audible and visual alarms which activate on XXXX cyclo-filter unit malfunction shall also be fitted, and emission events which result in the alarm being activated shall be recorded in the Logbook required by condition 21.

WOOD WASTE BURNING

18. Visual assessments of emissions from the XXXX wood waste burner stack shall be carried out at start up and at least twice a day while the wood waste burner is operating, unless continuous indicative particulate monitors are installed and operating as per condition 19. Records of visual assessments shall be recorded and retained with the logbook required in condition 21 for 2 years.

19. Where continuous indicative particulate monitors are fitted the outputs shall be continuously recorded. Audible and visual alarms which activate at 150 mg/m^3 shall also be fitted, and emission events which result in the alarm being activated shall be recorded in the Logbook required by condition 21. A

summary of results of all continuous monitoring shall be retained for at least two years.

COATING ACTIVITY

20. Visual assessments of emissions from the stacks serving the coating activity V1, V2, V3, V4, and V5 on Plan 3, shall be made at least twice per day while spray coating is taking place. Records of visual assessments shall be recorded and retained with the logbook required in condition 21 for 2 years

LOGBOOK

21. The results of all monitoring carried out to comply with conditions 14 to 20 inclusive shall be recorded in a log retained by the operator for a minimum of two years and made available for Local Authority inspection. The log shall contain details of:

    - date and time of assessment
    - result of monitoring
    - name of person carrying out the assessment
    - Any remedial action taken as a result of the monitoring

22. The logbook shall also contain details of any activation of the alarms required by condition 17 and 19, and of the steps carried out to investigate and address any alarm conditions.

23. The logbook shall contain details of any malfunction or breakdown leading to abnormal emissions as required by condition 49

ORGANIC SOLVENT INVENTORY

24. A detailed inventory of all organic solvent usage shall be kept for all processes using organic solvents. The inventory shall include the following information:

    - **A calculation of the organic solvent input**, by recording:

    (i) initial stock in the accounting period, plus

    (ii) purchases during the accounting period, minus

    (iii) final stock in the accounting period.

    In cases where the product is not wholly comprised of organic solvent, the mass of organic solvent (in grams) may be derived by multiplying the bulk volume of the product (in litres) by the proportion of organic solvent

in the product (in grams per litre). The mass of organic solvent shall be expressed in kilograms.

- **A calculation of the discountable organic solvent output**, by recording:

(i) organic solvents sent for recovery, and,

(ii) organic solvents sent for re-use

The organic solvent mass may either be determined by sampling the waste or, in the case of waste whose volume is almost entirely organic solvent (for example a mixture of organic solvent and a small amount of paint solids), calculated by applying an appropriate density factor to the waste volume.

(iii) A calculation of organic solvents sent for disposal. The organic solvent mass may either be determined by sampling the waste or, in the case of waste whose volume is almost entirely organic solvent (for example a mixture of organic solvent and a small amount of paint solids), calculated by applying an appropriate individual density factor to the waste volume.

The inventory shall also include the organic solvent or volatile organic compound content of, and quantity of, coating materials purchased which comply with the compliant coating specification in Appendix 2.

All the values are maxima, not averages.

The individual inventory including the total organic solvent usage figure shall be forwarded to the Council by 1st June each year for the preceding 12 months up to the 1st March respectively, along with sufficient supporting information showing the derivation of the figures.

COATING MATERIAL SOLVENT CONTENT

25. The operator shall produce a report each year, to be submitted with the organic solvent inventory required by condition 24, on the use of any non-compliant organic solvent containing coatings used in the coating activity. The report shall include the volume in kilograms of non-compliant coatings, and the VOC content of each coating used. Compliant coatings are specified in Appendix 2.

MATERIALS HANDLING

WHOLE SITE

26. Any spillage of sawdust chipping or ash from the timber activity and wood waste burner occurring outside buildings must be cleaned up as soon as possible.

27. Sawdust and wood particles shall only be transported within the installation boundary in the dust extraction system and ductwork, or in enclosed containers.

28. Sawdust or wood particles removed from the installation for sale or disposal shall be conveyed in totally enclosed containers.

29. No open stockpiles of sawdust chipping or ash shall be kept in the open unless covered or contained so as to prevent wind whipping.

WOOD WASTE BURNER

30. No waste, other than non-chemically treated wood waste from the XXXX cyclo-filter and XXXX GZ chipper serving the timber process, shall be burnt in the wood waste burner, except the minimum that is required to light/start the wood waste burner.

31. Treated wood, which includes surface coated or preserved wood, shall not be burned on the wood waste burner. Reconstituted wood, for example by treatment with resins or binders shall not be used to start the wood waste burner from cold.

32. The bulk wood waste storage silo which serves the wood waste burner shall be fitted with an overfill alarm or volume indicator to prevent overfilling of the silo. The alarm or volume indicator shall be checked for correct operation every week and the checks recorded in the logbook required in condition 21.

COATING ACTIVITY

33. All spillages over 10 litres, containing organic solvents or volatile organic compounds shall be cleaned up as soon as possible and incidents of such spillages shall be recorded in the Log Book.

ORGANIC SOLVENT CONTAINING MATERIALS MANAGEMENT

34. All full, partially full and nominally empty containers that hold or have held materials or wastes that contain organic solvents shall be stored tightly lidded.

35. Mixing of VOC containing coatings shall be carried out in covered or enclosed mixing vessels.

36. All organic solvent-soaked wiping cloths shall be stored in designated, tightly lidded storage facilities.

37. The transfer or movement of VOC containing materials shall be in enclosed containers with close fitting lids.

38. A supply of absorbent material shall be held on site for use in the event of spillages of material containing organic solvents at all times.

CHIMNEYS, VENTS & PROCESS EXHAUSTS

39. The chimneystack serving the wood waste burner marked W1 on Plan 3, shall have a have an efflux velocity of at least 15m/sec.

40. The stacks W1, T1 and T2, and V1, V2, V3, V4, and V5 marked on Plan 3 must not be fitted with any restriction at the final opening.

GENERAL OPERATIONS

41. At all times while this Permit is in force, a copy of the Permit shall be kept posted at the location of the Installation in such characters and in such position as to be conveniently read by persons having duties which are, or may be affected by the matters set out in the Permit.

42. Training of all staff with responsibility for operating the activities described in Document B should include:

    - awareness of their responsibilities under the permit; in particular how to deal with conditions likely to give rise to dust emissions, such as the event of spillage
    - minimising emissions on start up and shut down
    - action to minimise emissions during abnormal conditions

43. The operator should maintain a statement of training requirements for each operational post and keep a record of the training received by each person whose actions may have an impact on the environment. These documents should be made available to the regulator on request.

44. All emission control plant including the ductwork and chimney flues must be inspected at least once every 12 months and cleaning and repairs carried out by a competent person as and when necessary.

45. The filters for the XXXX cyclo-filter unit shall be fully inspected at least once per calendar year, and a record of the checks shall be recorded in the Logbook required by condition 21, unless a continuous particulate monitor is fitted.

46. Spare filters for abatement plant shall be kept on site.

47. Effective preventive maintenance shall be employed on all plant and the equipment concerned with the control of emissions to air. In particular, a written maintenance programme shall be produced which must cover the Cattinair cyclo-filter, wood waste burner and the spray shop spray booths. A record of such maintenance shall be made available for inspection on request by the Local Authority Inspector

48. There shall be no burning of any waste material within the installation boundary other than in the wood waste burner.

49. Any malfunction or breakdown leading to abnormal emissions must be dealt with promptly:-

- The process must be halted immediately.
- Corrective action must be taken promptly and the process not restarted until the fault has been remedied.
- All actions carried out in relation to the fault must be entered in the log book (condition 21) together with:-

  I. The date of the malfunction.

  II. The location of the fault and any resulting emissions.

  III. Details of the works undertaken.

  IV. The subsequent restart date of the process.

  V. The name of the person supervising the works.

50. The Environment Division at XXXX XXX Council must be informed within 1 hour of any abnormal emissions likely to have an effect on the local community. This must be by telephone, during office hours on XXXXXXX, outside office hours on XXXX XXXXX.

_____(Signature)

_____ (Date)

authorised by XXXXXXX Council to sign on their behalf.

APPENDIX 1

LEGISLATION

1. Pollution Prevention & Control Act 1999
2. Environmental Permitting (England & Wales) Regulations 2010

DEFINITIONS

i. "day" means any period of 24 consecutive hours commencing at midnight.

ii. "hr" means hour.

iii. "m/s" means metres per second

iv. "m^2" means square metre.

v. "m" means metre.

vi. "mm" means millimetre.

vii. "kg" means kilogram.

viii. "g" means gram.

ix. "mg" means milligram

x. "L" means litre.

xi. "m^3" means cubic metre.

xii. "K" means Kelvin (273K º 0°C).

xiii. "°C" means degrees Celsius (centigrade).

xiv. "kPa" means kilopascal (101.3kPa º 1 atmosphere pressure).

xv. "coating material" includes paint, varnish, lacquer, dye, any metal oxide coating, any adhesive coating, any elastomer coating and any metal or plastic coating.

xvi. "organic solvent" means any organic liquid which, at 101.3 kPa and 293K (20°C), is sued or acts as a dissolver or dispersion medium, viscosity adjuster, or for cleaning operations.

xvii. "volatile organic compound (VOC)" includes any organic compound (except particulate matter) containing hydrogen and carbon which is emitted into air as part of or during the Authorised Process operations.

xviii. "stack" includes structures and openings of any kind from or through which prescribed substances for air may be emitted.

xix. "duct" includes enclosed structures through which prescribed substances for air may be conveyed.

xx. "process vent" includes open terminations of ducts.

xxi. "prescribed substances for air" are defined in the Environmental Permitting (England & Wales) Regulations 2010 (as amended).

At the present time (December 2011) they are as follows:-

Oxides of sulphur and other sulphur compounds.

Oxides of nitrogen and other nitrogen compounds.
Oxides of carbon.
Organic compounds and partial oxidation products.
Metals, metalloids and their compounds.
Asbestos (suspended particulate matter and fibres) glass fibres and mineral fibres.
Halogens and their compounds.
Phosphorous and its compounds.
Particulate matter.

APPENDIX 2

Compliant Coatings

Compliant Coatings are defined as follows:

a) Where, in relation to each of the following coatings, coating as applied contains less VOC than specified in the table below

Coating	VOC in grams per litre of coating (less water)
Fillers	370
Clear coating applied by vacuum or roller coating methods	200
Pigmented coating applied by vacuum or roller coating methods	265
Pigmented coating applied by spray, curtain or dip techniques (except (g) below	520
Clear coating applied by spray, curtain or dip techniques (except (g) below	475
Clear coating applied by spray, curtain or dip techniques where all other coats are water-borne coatings containing no more than 10% by weight of VOC	600
Pencil end dipping lacquers	650

b) Where, in the case of stains, the VOC content in the coating is less than 10% by weight; or

c) Where the organic solvent loss during each cleaning of curtain and roller coating equipment is less than 10% of the organic solvent cleaning solution usage in each individual cleaning operation.

SUPPLEMENTARY NOTES

These notes do not comprise part of Permit but contain guidance relevant to the Permit.

Inspections

Regular inspections will be taken by officers of the Council without prior notice to check and ensure full compliance with the Permit.

Residual Duty

The Pollution Prevention & Control Act 1999 describes 'BAT' as including, in addition to technical means and technology, the number, qualification, training and supervision of persons employed in the activity and the design, construction, layout and maintenance of the buildings in which the activity is carried on.

The residual duty covers all air pollution matters not covered by the specific conditions in document B, for instance, the ready availability of essential spares. Further guidance is given in the reference Process Guidance Notes for Compliance referred to on page 2.

Health and Safety

This Permit is given in relation to the requirements of the Pollution Prevention & Control Act 1999 It must not be taken to replace any workplace responsibilities the operator has under Health & Safety legislation. Whenever emission limits quoted in this Permit conflict with occupational exposure limits set under the Health and Safety at Work Act 1974 to secure the health, safety or welfare of persons at work, the tighter limit should prevail.

Activities must be operated in order to protect persons at work as well as the environment. In achieving conditions in this Permit the operator must not adopt any course of action that would put at risk the health, safety or welfare of persons at work.

Smoke Density Ringelmann Chart BS2742

The Ringelmann chart can be used to determine the darkness of smoke. Ringelmann charts are available from the British Standards Institution, Lyndford Wood, Milton Keynes, MK14 6LE, Tel (01908) 221166.

The full size chart is viewed from at least 15 metres. The miniature chart (12mm x 6.9mm) is viewed from 1.5 metres usually at the end of a light rod. A micro version, less than postcard size and used at arms length is not recognised by the British Standard.

The use of the charts is described in the British Standard

Other Statutory Requirements

This Permit does not detract from any other statutory requirement, such as the need to obtain planning permission, hazardous substances consent, discharge consent from the Environment Agency, building regulations approval, or a waste disposal licence.

This Permit is issued under Section 10 of the Regulations. The Permit does not authorise a contravention of any other enactment or any order made, granted or issued under any enactment, nor does it authorise a contravention of any rule or breach of any agreement.

The Operator is advised to consult the Planning Department at:

XXXX
XXXX
XXXX

regarding changes that may be required as a result of this Permit (e.g. stack heights) as they may require planning permission.

Change of Permit Holder

Section 18 of the Regulations allows the holder of a Permit to transfer it to a person who proposes to carry on the process in the holder's place. Both the current operator and the proposed transferee are required to make a joint application to the Council. The Council may request additional information prior to effecting the transfer.

Change In The Operation Of An Installation

Section 16 of the Regulations requires that where an operator of an installation with a permit proposes to make a change in the operation, 14 days before making the change, the Council must be notified in writing.

Variation of Permit

Under Section 17 of the Regulations, the Council has powers to vary the Permit at any time.

Section 17 of the Regulations allows holders of a Permit to apply to make changes to the conditions of the Permit. Operators will be liable to enforcement action if they make a change without approval which is such that **either** the Activities (as changed) are not the Activities which are Permitted **or** a condition of the Permit is not being complied with as a result of the change being made. If this procedure is needed, contact the Pollution Control Team for an information pack and forms.

General Guidance Manual on Policy and Procedures for A2 and B Installations gives advice on the variation procedure. Holders should be aware that it may take up to 4 months to determine an application for Variation

Additionally, the Council has the statutory duty of reviewing the Permit periodically.

Noise

This Permit does not include reference to noise. Statutory noise nuisance is regulated separately under the provisions of Part III of the Environmental Protection Act 1990.

Appeals

An Appeal can be made against the conditions in this Permit to the Secretary of State within 6 months of the date of issue. Any Appeal is governed by Section 27 and Schedule 8 of the Regulations.

Stationery Office (formerly HMSO) Publications

All HMSO publications can be ordered by telephone on 0171 873 9090

Emission Monitoring Protocol

The documented procedure by which reliable and comparable results are obtained from measurements at source is known as a Protocol.

Protocols ensure that the sampling procedures are carried out correctly and that the results obtained accurately characterise the process.

The main components of a Protocol are as follows:-

- Calibre and quality of the sampling team.
- A reference measurement method (standard methods may not always be available)
- A standard methodology setting out:
  - health and safety considerations
  - pollutants of interest
  - plant operating conditions required
  - selection and location of sampling position
  - sampling characteristics (e.g. isokinetic etc) and techniques
  - sampling frequency
  - sampling duration
  - number of samples
  - type (including make and model), condition and suitability of sampling equipment
  - required accuracy
  - variability emissions
  - analytical methods including laboratory competence and UKAS accreditation certificate copy for each pollutant of interest
  - analytical precision
  - procedures to be adopted if standard methods unavailable
  - calibration certificate(s) for sampling equipment
- Quality Control and Quality Assurance procedures
- How the results and associated information will be presented.