

Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Broughton Aircraft Factory

Airbus Operations Limited
Chester Road
Broughton
Chester
CH4 0DR

Variation notice number
EPR/BM3965IA/V005

Permit number
EPR/BM3965IA

Broughton Aircraft Factory

Permit number EPR/BM3965IA

Introductory note

This introductory note does not form a part of the permit

The following notice, which is issued pursuant to regulation 20 and Part 1 of Schedule 5 of the Environmental Permitting (England and Wales) Regulations 2010, S.I.2010 No. 675 (the Regulations), gives notice of the variation of an environmental permit to operate a regulated facility.

The installation is located within the boundary of the Hawarden airfield to the north of the village of Broughton in Flintshire, Wales. Activities comprise the whole process of the manufacture of aircraft wings and components, from the delivery of the raw materials to the despatch of the completed wings. Wing parts are shipped out either by a specially adapted aircraft, road transport or barge. Aircraft movements are not regulated by the permit but the movement of road traffic on site is controlled.

This variation enables the Operator to convert the anodising processes on the Large Component Manufacturing (LCM) and Stringer Manufacturing Centre (SMC) operations from Chromic Acid Anodising solution to a mixed Tartaric and Sulphuric Acid anodising solution, known as TSA.

Extensive trials of the TSA anodising process have been conducted in order to secure Civil Aviation Authority approval for the use of the process in aircraft manufacture. These trials have demonstrated that the TSA process offers lower environmental impact, reduced energy consumption and reduced water consumption in relation to the chrome anodising process.

The proposed changes do not affect the number or location of release points to air, water or sewer. However, the character of the emissions to air and sewer will change owing to the elimination of chromium compounds. Principal emissions to air arising from the change will comprise tartaric and sulphuric acid mist, whilst other releases remain largely as before, with the exception of the chromium component, which will be eliminated. The release to sewer will continue to carry progressively reducing concentrations of chromium compounds as the residual chrome in the system is removed.

During the process of transition from Chromic Acid Anodising to TSA Anodising, there will be a period when both techniques will effectively be operational, leading to a temporary increase in chemical inventory and consequently an increased risk to the environment. However, this is an unavoidable and necessary part of the conversion, owing to the need to qualify the TSA process under strict Civil Aviation Authority rules, and the period of enhanced risk will be relatively short at around nine to twelve months.

Schedule 1 of this notice lists any deleted conditions, Schedule 2 lists any amended conditions and Schedule 3 lists any conditions that have been added.

The status log of a permit sets out the permitting history, including any changes to the permit reference number.

Status Log of the permit		
Detail	Date	Response Date
Application BM3965IA	Duly made 06/06/2002	
Request for information		18/09/02
Permit determined BM3965IA	15/11/02	
Application BV0945	10/04/03	
Variation EPR/BV0945 issued	25/07/03	
Variation application TP3737PJ	09/07/04	
Additional information supplied		13/07/04
Additional information supplied		02/08/04
Additional information supplied		18/10/04
Additional information supplied		12/05/05
Variation TP3737PJ issued	30/06/05	
Variation application NP3235MQ	12/12/06	
Variation NP3235MQ issued	26/01/07	
Variation application EPR/BM3965IA/V005	Duly made 11/11/09	
Variation EPR/BM3965IA/V005 issued	03/08/10	

Other Part A installation permits relating to this installation		
Operator	Permit Number	Date of Issue
Alfred McAlpine Business Services Ltd	BS4243	15/11/02
Metal Improvement Company LLC	BS4235	15/11/02

End of Introductory Note

Notice of variation

Environmental Permitting
(England and Wales) Regulations 2010

Permit number

EPR/BM3965IA

The Environment Agency in exercise of its powers under Regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 (SI 2000 No 675) varies the permit as set out below.

Airbus Operations Limited ("the operator"),
whose registered office is

New Filton House
Filton
Bristol
BS99 7AR

company registration number **03468788**

holds a permit to operate part of a regulated facility at

Broughton Aircraft Factory
Chester Road
Broughton
Chester
CH4 0DR

and that permit is varied to the extent set out in Schedules 1 to 3 of this notice.

The notice shall take effect from 03/08/10

Name: Avril Varley-Brown

Date

	03/08/10
---	----------

Authorised on behalf of the Environment Agency

Schedule 1 – conditions to be deleted

None.

Schedule 2 – conditions to be amended

The following conditions are amended as shown.

2.6 Pre-operational Conditions

- 2.6.1 The operations specified in schedule 1 table S1.4B shall not commence until the measures specified in that table have been completed.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex IIA and IIB operations	Limits of specified activity and waste types
A1	S1.1 A (1) (a)	Dispersed Combustion Plant	From receipt of raw materials to exhaust of products of combustion and delivery of hot water or steam
A2	S2.3 A (1) (a)	Chrome Anodising and TSA Anodising on LCM and SMC facilities until conversion process is complete, then TSA Anodising only. Chrome anodising on Hawker Redux facility.	From receipt of raw materials to despatch of anodised material for further processing, despatch of process effluent to Effluent Treatment Plant and exhaust of extracted process air via scrubbers to air.
A3	S6.4 B (a)	Painting of wing structures	From receipt of raw material to despatch of finished product and exhaust of extracted process air to air.
A4	S6.4 B (a) (iv)	Pin Cleaning	From receipt of fasteners for cleaning to despatch for re-use and exhaust of extracted process air to air.
Directly Associated Activity			
A5	Manufacture of wing structures	Manufacture of components and assembly of structures	From receipt of raw materials to despatch of finished product
A6	Machining	Manufacture of components	From receipt of raw materials to despatch of material for further processing
A7	Grit Blasting	Surface treatment of components	From receipt of raw materials to despatch of material for further processing
A8	Autoclaves	Assembly of components	From receipt of raw materials to despatch of material for further processing

Table S1.1 activities

Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex IIA and IIB operations	Limits of specified activity and waste types
A9	Effluent Treatment	Treatment of effluent from Chrome Anodising and TSA Anodising	From receipt of effluent to discharge of treated effluent, despatch of waste material and exhaust of extracted process air to air.

Table S1.2 Operating techniques

Description	Parts	Date Received
Application	The response to section 2.1, 2.2 and 2.3 in the application.	04/12/06
Additional information from the Operator	Atmospheric Dispersion Modelling	08/01/07
Additional information from the Operator	Re-submission of main text of the application, PPC04, PPC06 and Table 2.10.2 Surface Water Monitoring.	15/01/07
Additional information from the Operator	Atmospheric Dispersion Modelling for Onsite Receptors and Conversion of nitric oxide to nitrogen dioxide	17/01/07
Application EPR/BM3965IA/V005	Sections 3.12, 3.13, 3.17, 3.18, 3.19, 3.20, 3.21, 3.22, 3.23 (except 3.23.6 and 3.23.7)	11/11/09

Table S1.3 Improvement programme requirements

Reference	Requirement	Date
IC1	The Operator shall continue with the programme to remove chromium from the production process. A summary report shall be submitted to the Agency identifying progress towards this removal by the due date and then annually until completion.	31/12/07 and then annually until chromium removed
IC2	The Operator shall carry out a BAT review of the interim single aisle paintshop. A report summarising the improvements identified and associated timescales shall be submitted to the Agency.	Completed
IC3	On completion of two years worth of VOC mass balance data from the paint shops the Operator shall review the VOC emitted from each individual paintshop per tonne of finished product. A summary report shall be submitted to the Agency including timescales for any improvement highlighted.	Completed
IC4	The Operator shall complete the link up of the boiler plant (associated with the final single aisle paintshop) to the CHP, as detailed in the application.	31/12/09 or as otherwise agreed by the Agency
IC5	The Operator shall investigate the source of the chrome contamination in SW16. A summary report shall be submitted to the Agency including timescales for any improvements highlighted.	Completed
IC6	On completion of two years worth of surface water monitoring following this variation the Operator shall review the results obtained. A proposed revised programme of monitoring shall be forwarded to the Agency.	Completed
IC7	The Operator shall carry out a BAT review of the existing and proposed new pin cleaning machines. A report summarising the improvements identified and associated timescales shall be submitted to the Agency.	Completed
IC8	The Operator shall review the relevant Environmental Management System Procedures following the issue of this Variation. All amendments required shall be implemented into the EMS by the due date.	Completed
IC9	The Operator shall reassess the input data and results of the onsite air modelling with respect to the impact of chromium from the paintshops. A report shall be submitted to the Agency including timescales for any improvements identified.	Completed
IC10	The Operator shall investigate the availability of a suitable alternative to the cleaning chemical Ardrex 6333 in order to eliminate the releases of boron in the discharge to sewer. The Operator shall submit a written report to the Agency which details the findings of the investigation and includes any proposals for improvements, together with a timescale for their implementation.	31/10/2010

Schedule 4 – Emissions and monitoring

Table S4.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location (on PPC 04 F)	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Chrome Anodising, TSA Anodising and Effluent Treatment Plant						
Large Component Manufacture (LCM)						
A79, A81, A83	n/a	Tanks 01, 02, 05, 08 and 11 on the LCM Treatment Line	n/a	n/a	n/a	n/a
A90	n/a	LCM Effluent Treatment	n/a	n/a	n/a	n/a
A82	n/a	Tank 9	n/a	n/a	n/a	n/a
Hawker Redux						
A85	n/a	Hanger 89 Treatment Line	n/a	n/a	n/a	n/a
Stringer Manufacturing Centre (SMC)						
A84	n/a	Tanks 01, 02, 05, 08, 09, 10 and 13 on the SMC Treatment Line	n/a	n/a	n/a	n/a
A91	n/a	SMC Effluent Treatment	n/a	n/a	n/a	n/a
Paint Shops						
Dash 600						
A24, A26	VOCs	Oven, spray booth and paint mix	n/a	n/a	Quarterly	Mass balance

Table S4.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location (on PPC 04 F)	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Site 5						
A27 – A34	VOCs	Prep booths, spray booths, detail booths, detail booth oven and paint mix	n/a	n/a	Quarterly	Mass balance
Interim Single Aisle						
A35 – A43 A35a – A42a	VOCs	Booths and paint mix	n/a	n/a	Quarterly	Mass balance
Binks						
A44	VOCs	Spray booths, paint mix and oven	n/a	n/a	Quarterly	Mass balance
Hangar 91						
A48 – A54	VOCs	Spray booths and paint mix	n/a	n/a	Quarterly	Mass balance
Stringer						
A55, A56	VOCs	Spray booth, paint mix and booth oven	n/a	n/a	Quarterly	Mass balance
West						
A58 – A60	VOCs	Paint shops and paint mix	n/a	n/a	Quarterly	Mass balance
Final Single Aisle						
A177 – A181	VOCs	Prep booth and paintshop	n/a	n/a	Quarterly	Mass balance
Grit Blast						
A86 – A89	n/a	Hangar 89 Grit Blast	n/a	n/a	n/a	n/a
Pin Cleaning						
A182	VOC	Pin Cleaning Machine	n/a	n/a	Quarterly	Mass balance
Combustion Plant						
A4 – A10, A12, A14	n/a	Process / Space Heaters	n/a	n/a	n/a	n/a
A22	n/a	Hangar 89 Boiler	n/a	n/a	n/a	n/a
A23	n/a	Hangar 91 Boiler	n/a	n/a	n/a	n/a
A61 – A72	n/a	A380 Autoclaves	n/a	n/a	n/a	n/a
A73 – A78	n/a	Hangar 89 Autoclaves	n/a	n/a	n/a	n/a
A112 – A115	n/a	Site 5 Burners	n/a	n/a	n/a	n/a

Table S4.1 Point source emissions to air – emission limits and monitoring requirements

Emission point ref. & location (on PPC 04 F)	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
A119	n/a	Dash 600 Burner	n/a	n/a	n/a	n/a
A99 – A111, A120 – A173, A182	n/a	Combustion Plant < 0.5 MW Input	n/a	n/a	n/a	n/a
A175	n/a	Final Single Aisle Boiler	n/a	n/a	n/a	n/a

Table S4.3 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements

Emission point ref. & location	Parameter	Source	Limit (incl. Unit)	Reference period	Monitoring frequency	Monitoring standard or method
TE1 (LCM Treatment Plant)	Total Chrome	Effluent Treatment Plant	100 µg/l	Note 1	Weekly	Note 1 Note 2
TE2 (Hawker Treatment Plant)	Total Chrome	Effluent Treatment Plant	500 µg/l	Note 1	Weekly	Note 1
TE3 (SMC Treatment Plant)	Total Chrome	Effluent Treatment Plant	500 µg/l	Note 1	Weekly	Note 1 Note 2

Note 1: Method and Reference Period to be agreed in writing with the Environment Agency.

Note 2: Cessation of monitoring for Total Chrome on emission points TE1 and TE3 to be agreed in writing with the Environment Agency when monitoring results show that releases have ceased.

Schedule 5 – Reporting

Table S5.3 Performance parameters

Parameter	Frequency of assessment	Units
Water usage	Annually	tonnes
Energy usage	Annually	MWh
Waste Produced	Annually	tonnes
Ardrox 6333 usage (if applicable)	Annually	tonnes

Schedule 3 – conditions to be added

The following table is added to the permit.

Schedule 1 – Operations

Table S1.4B Pre-operational measures for future development		
Reference	Operation	Pre-operational measures
POM 1	TSA Anodising on the LCM and SMC surface treatment facilities	At least two weeks before completion of commissioning and qualification of TSA anodising on the LCM and SMC surface treatment facilities, the operator shall submit to the Agency a revised Accident Management Plan which reflects the changes to the raw material inventory.

Schedule 4 – amended plan

None.