

Variation notice with introductory note

Environmental Permitting (England & Wales) Regulations 2010

Ruabon Electroceramics

Morgan Electro Ceramics Limited
Vauxhall Industrial Estate
Ruabon
Wrexham
LL14 6HY

Variation notice number
EPR/BY0364IB/V005

Permit number
EPR/BY0364IB

Ruabon Electroceramics

Permit number EPR/BY0364IB/V005

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 Operator has requested a variation to modify its process following trials to combine the processing of binder burn-out (holding the PZT powder together when pressing its component shape) with sinter firing in the same kiln. Until now, these operations have been carried out separately, and it is considered that combined firing will allow a reduction to kiln operation whilst providing increases to manufacturing times.

To enable this modification, the Operator will discontinue the use of existing gas binder burn out oven (FGG1) listed as emission point B10 (table 2.2.1 emission points to air), and commission a new combined burn-out and firing kiln (table 2.2.1 emission point B30) for which stack parameters will be mirrored. This change will also promote a reduction in the usage of the sinter fire kiln (table 2.2.1 emission point B17) with future elimination anticipated following production cycle-time savings.

The application states that fired load, emission types and volumes will remain unchanged.

Schedule 1 of this notice lists any deleted conditions, Schedule 2 lists any amended conditions, Schedule 3 lists any conditions that have been added and Schedule 4 shows any changes to the plan.

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 BY0364IB (EPR/BY0364IB/A001)	Received 03/12/2004	
Request for further information	28/04/2005	17/08/2005
Permit determined BY0364IB (EPR/BY0364IB/A001)	31/08/2005	
Application for variation NP3338LX (EPR/BY0364IB/V002)	Received 13/03/2006	
Request for further information	12/05/2006	30/05/2006 and 03/07/2006
Provision of supplementary information	Received 18/07/2006	
Variation determined NP3338LX (EPR/BY0364IB/V002)	18/07/2006	
Application for variation FP3838MT (EPR/BY0364IB/V003)	Received 11/10/2006	
Request for further information	22/12/2006	22/01/2007 and 01/02/2007
Variation determined FP3838MT (EPR/BY0364IB/V003)	26/02/2007	
Application for variation QP3232UM (EPR/BY0364IB/V004)	Received 13/06/2007	
Provision of supplementary information	Received 22/08/2007	
Variation determined QP3232UM (EPR/ BY0364IB/V004)	23/08/2007	
Application EPR/BY0364IB/V005	Duly made 01/12/2010	
Variation issued	25/01/2011	

End of Introductory Note

Notice of variation

Environmental Permitting
(England and Wales) Regulations 2010

Permit number

EPR/BY0364IB

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

Morgan Electro Ceramics Limited ("the operator"),

whose registered office is

**Bursledon Road
Thornhill
Southampton
Hampshire
SO19 7TG.**

company registration number **112286**

holds a permit to operate a regulated facility at

**Vauhall Industrial Estate
Ruabon
Wrexham
LL14 6HY.**

and that permit is varied to the extent set out in Schedules 1 to 4 of this notice.

The notice shall take effect from the 25th January 2011

Name	Date
	25th January 2011

Anne Nightingale, 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 follows

1.4 Improvement programme

- 1.4.1 The Operator shall complete the improvements specified in Table 1.4.1 by the date specified in that table, and shall send written notification of the date of completion of each requirement to the Agency within 14 days of the completion of each such requirement.

Table 1.4.1: Improvement programme

Ref	Requirement	Date
1	The Operator shall review the existing pollution prevention measures in place for the drummed waste storage area, having regard to Section 2.2.5 of the Sector Guidance Note S4.03. A written report shall be submitted to the Environment Agency for approval, summarising the review, including any necessary improvements and timescales.	Complete
2	The Operator shall undertake a programme of monitoring of emissions of lead, total particulate matter and volatile organic chemicals to estimate the total release of these substances from the emission points listed in section B2.2.2 of the Application, excluding points B2, B3, B6 and B7. The Operator shall use the following monitoring standards: BS EN 13284-1 for particulate, BS EN 14385 for lead and BS EN 13526:2001 for Total VOCs, unless otherwise agreed in writing by the Agency. The methodology used to estimate the releases, together with an impact assessment of these emissions shall be submitted in writing to the Agency.	Complete
3	The Operator shall provide a written report detailing the status of the improvements identified in Section B9.0.1 of the Application.	Complete
4	The Operator shall review the pollution prevention measures in place for the effluent treatment plant, having regard to Section 2.2.2 of the Agency Guidance Note S4.03. The Operator shall provide the Environment Agency with a written copy of the review for approval, which shall include timescales for the implementation of improvements.	Complete
5	The Operator shall submit a written report to the Environment Agency for approval, outlining the scope for a noise assessment and any further assessments, having regard to Environment Agency Cross Sector Guidance Note H3 (Part 1 and Part 2).	Complete
6	The Operator shall investigate options for de-watering sludge on-site, having regard to Section 2.6 of the Agency Guidance Note S4.03. A written report summarising the options shall be submitted to the Agency for approval. The report shall include a timescale for the implementation of improvements.	Complete
7	The Operator shall investigate options for reusing treated effluent for use in low-grade applications, having regard to Section 2.4.3 of the Agency Guidance Note S4.03. A written report summarising the techniques shall be submitted to the Agency for approval. The report shall include a timescale for the implementation of improvements.	Complete

Table 1.4.1: Improvement programme

Ref	Requirement	Date
8	The Operator shall investigate the options for the recovery and recycling of waste powder in the process, having regard to Section 2.6 of the Environment Agency Guidance Note S4.03. A written report summarising the techniques identified shall be submitted to the Agency for approval. The report shall include a timescale for the implementation of improvements.	Complete
9	The Operator shall undertake a programme of monitoring of emissions of lead, total particulate matter and volatile organic chemicals to quantify the releases of these substances from emission points B6, B7, B13, B22, B23, B24, and B25. The Operator shall use the following monitoring standards: BS EN 13284-1 for particulate, BS EN 14385 for lead and BS EN 13526:2001 for VOCs, unless otherwise agreed in writing by the Agency. The methodology used to estimate the releases, together with an impact assessment of the emissions from the Installation as a whole shall be submitted in writing to the Agency.	Complete
10	The Operator shall undertake a programme of monitoring of emissions of lead, total particulate matter and volatile organic chemicals and shall use the results of this monitoring to estimate the total release of these substances from the emission points listed in table 2.2.1. The Operator shall use monitoring standards as required by condition 2.10.7. Following completion, the Operator shall submit a report to Agency. This report shall include, but need not be exclusive to, the methodology used to arrive at the estimate and an assessment of the impacts of the emissions.	Complete
11	The Operator shall submit an accident prevention plan in writing to the Agency for approval. The plan shall detail the actions to be taken in the event of a fire at the Installation to minimise emission to the environment	Complete
12	The Operator shall submit a report detailing the investigation into re-routing the emissions from points B22, 23 and 27 internally to the building	Complete
13	The Operator shall conduct commissioning trials and monitoring to confirm that the spray driers from Southampton and Eindhoven are operating as expected and in accordance with Best Available Techniques. The Operator shall submit a report detailing the outcome of these trials to the Agency. The report shall include, but not be exclusive to, the results of the monitoring, and any measures required to optimise these units.	Complete
14	The Operator shall install pressure differential monitoring to the abatement unit serving emission point B7.	Complete
15	The Operator shall conduct commissioning trials and monitoring to demonstrate that the new equipment is operating as expected and in accordance with Best Available Techniques. Monitoring of emission points B7, B14, B26, B18 and B254 shall include, but not be exclusive to, lead (vapour and particulate), particulate matter and total Volatile Organic Compounds (as carbon). The Operator shall use monitoring standards as required by condition 2.107. The Operator shall submit a report detailing the outcome of the commissioning trials and monitoring to the Environment Agency. The report shall include, but not be exclusive to, the results of the monitoring, and any measures required to optimise these units.	31/12/07

Table 1.4.1: Improvement programme

Ref	Requirement	Date
16	The Operator shall carry out an investigation into surrogate measures that could be employed to demonstrate correct operation of the scrubbers used to abate emissions from the Ruabon and Eindhoven spray driers. Following completion, the Operator shall submit a report to Agency detailing the assessment and proposals for any improvements identified.	31/03/08
17	The Operator shall carry out a review of unabated emissions of lead (vapour and particulate), particulate matter and volatile organic compounds (as carbon) from the Installation and identify emission points that are priorities for control. Following completion, the Operator shall submit a report to Agency detailing the assessment and proposals for any improvements identified.	30/04/08
18	The Operator shall complete a BAT assessment of the abatement employed for the Rubon and Eindhoven spray driers and shall report the outcome of this assessment to the Agency. This shall include, but not be exclusive to, assessment of emissions of lead (vapour and particulate), particulate matter, and volatile organic compounds (as carbon) emissions. Where monitoring is employed, monitoring standards as required by condition 2.10.7. Following completion, the Operator shall submit a report to the Agency detailing the assessment and containing proposals with timescales for any improvements identified.	Complete
19	The operator shall complete a BAT assessment of the emission control measures employed for the priority emission points that are identified by the outcome of improvement programme item 17.	30/09/08
20	<p>The Operator shall undertake a programme of monitoring for emission points B26, B27 and B30 (table 2.2.1) for emissions of Lead, Particulate Matter (Pm) and Volatile Organic Compounds (VOCs) in accordance with the latest relevant Environment Agency Monitoring Technical Guidance Notes and Sector Guidance for the Inorganic Chemicals Sector (EPR 4.03).</p> <p>Following completion of the monitoring, a report shall be submitted to the Environment Agency detailing:-</p> <ul style="list-style-type: none"> • Results from the monitoring specified above, together with details of the methodologies and standards used. • Results of Lead, Pm and VOC emissions from all other relevant emission points (table 2.2.1) excluding B10 - based on either estimation (by utilising any previous monitoring results) or from a new programme of monitoring. Details of the methodologies and standards used shall be provided. • An impact assessment (for example Environment Agency H1, Air Quality Modelling, or Mass Balance Calculation) of total emissions of Lead, Pm and VOCs from the Installation as a whole, based upon the results obtained above. <p>The Environment Agency may impose additional emission limit values or monitoring requirements to those specified in table 2.2.2 following completion of this improvement condition.</p>	29/07/11

Operating conditions

2.1 In-process Controls

- 2.1.1 The Permitted Installation shall, subject to the conditions of this Permit, be operated using the techniques and in the manner described in the documentation specified in Table 2.1.1, or as otherwise agreed in writing by the Agency in accordance with conditions 1.5.1 and 1.5.2 of this Permit.

Table 2.1.1: Operating techniques

Description	Parts	Date received
Application	The response to questions 2.1 given in Section 4 of the application (In-process controls) and 2.2 given in Section 5 of the application (Emissions control and abatement).	03/12/04
Application for Variation	The response given in sections C2.1 (in-process controls) and C2.2 (emissions control and abatement) of the Application for Variation.	13/03/06
Re-submission of Schedule 7 in response to letter dated 27 June 2006 requesting further clarification of original response made 30 May 2006.	The response to questions 1 to 6 of the Schedule (pages 1 – 27) and the response to question 10 of the letter.	03/07/06
Supplementary information provided by the Operator.	Points 1, 5 and 6.	18/07/06
Application for Variation.	The response given in sections C2.1 (in-process controls), C2.2 (emissions control and abatement) and C2.10 (emissions monitoring) of the Application for Variation.	11/10/06
Schedule 7 response	The response to questions 2, 5, 6, 8, 9 and 11-23 of the Schedule.	22/01/07
Additional information provided by the Operator	The response to points, iv and v of the letter dated 24 January 2007 requesting clarification of Schedule 7 response.	01/02/07
Application for Variation	The response given in sections C2.1 (in-process controls), C2.2 (emissions control and abatement) and C2.10 (emissions monitoring) of the Application for Variation (excluding pg42 and the response regarding point B24/28).	13/06/07
Supplementary Information sent by Operator	The information on pages 2-3 (emission hours), 41-42 (mould firing and spray drier change), 45 (binder use) of the response.	22/08/07
Application for Variation	The response given in form C2, table 1, form C3 table 2, Non-Technical Summary, Technical Summary, and Revised Drawing PPC 05,	01/12/10

2.2 Emissions

2.2.1 Emissions to air, (including heat, but excluding odour, noise or vibration) from specified points

2.2.1.1 This Part 2.2.1 of this Permit shall not apply to releases of odour, noise or vibration.

2.2.1.2 Emissions to air from the emission points in Table 2.2.1 shall only arise from the sources specified in that Table.

Table 2.2.1 : Emission points to air

Ref	Source	Location of emission point (as per updated drawing PPC 05 – submitted with application for variation EPR/BY0364IB/V005)
B1	Calcine Kiln – PZT material	PZT Preparation Enclosure - Bay 1
B4	Calcine Kiln – Flue No. 1	Powder Preparation Production Area - Bay 1
B5	Calcine Kiln – Flue No. 2	Powder Preparation Production Area - Bay 1
B6	Wet Process Spray Dryer	Bay 1, Powder Preparation
B7	Press Area Dust Collector	External to Building
B8	Binder Burn Off Oven	Bay 3 Kilns
B9	Binder Burn Off Oven	Bay 2 Kilns
B11	Sinter Fire Kiln	Bay 2 Kilns
B12	Sinter Fire Kiln	Bay 2 Kilns
B13	Sinter Fire Kiln + O ₂ Firing Kiln	Bay 3 Kilns
B14	Calcine Kiln + Gemco Pre-fire kiln + Elino O ₂ Sinter Kiln	Bay 3 Kilns
B15	Calcine Kiln	Bay 3 Kilns
B17	Sinter Fire Kiln	Bay 3 Kilns
B18	Sinter Fire Kiln + KF4 Calcine Kiln	Bay 2 kilns
B22	Lead Dust Collector for Wet Process'	External to Bay 1, Powder Preparation
B23	Lead Dust Collector for Bead Mill and 'Dry Process'	External to Bay 1, Powder Preparation
B24	Spray Dryer ^{see note 1}	Bay 1, Powder Preparation
B25	2 Laboratory Kilns and Laboratory Spray Drier	Laboratory
B26	Calcine Kiln, Drying Ovens and Linn 1300 Sinter O ₂ Kiln	Powder Preparation Area
B27	General Dust Collector	External to Building (Powder Preparation)
B29	Government Contract Dust Collector	External to Government Contract Department
B30	Binder Burn Off Oven / Sinter Fire Kiln	Press Area

Note 1 Drier will change from 'Southampton' drier to 'Eindhoven' drier as per timescales identified on page 20 of the supplementary information.

Schedule 3 – conditions to be added

None.

Schedule 4 – amended plan

None.