

Notice of variation with introductory note

The Environmental Permitting (England & Wales) Regulations 2010

BP Chemicals Limited
Hull Chemical Industry
Saltend
Hull
HU12 8DS

Variation application number

EPR/BJ8162IR/V014

Permit number

EPR/BJ8162IR

Hull Chemical Industry

Permit number EPR/BJ8162IR

Introductory note

This introductory note does not form a part of the notice

The following notice gives notice of the variation of an environmental permit.

The requirements of the Industrial Emissions Directive (IED) 2010/75/EU are given force in England through the Environmental Permitting (England and Wales) Regulations 2010 (the EPR) (as amended).

This Permit, for the operation of large combustion plant (LCP), as defined by articles 28 and 29 of the Industrial Emissions Directive (IED), is varied by the Environment Agency to implement the special provisions for LCP given in the IED, by the 1 January 2016 (Article 82(3)). The IED makes special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V.

The Operator has chosen to operate this LCP under the ELV compliance route. The ELVs have been derived in accordance with Article 40 of the IED.

The total aggregated net rated thermal input of the LCP is as follows: LCP12 96.4MW boiler which can be fired on a number of fuel types. LCP12 provides super-heated, super-high pressure steam to a number of customers at the Hull Chemical Industry installation.

The variation notice uses an updated LCP number in accordance with the most recent DEFRA LCP reference numbers. The LCP reference has changed as follows:

- LCP68 is changed to LCP12

The rest of the installation is unchanged.

The schedules specify the changes made to the permit.

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

Status log of the permit		
Description	Date	Comments
Application received	07/11/00	
Permit determined EPR/BJ8162IR (PAS Billing ref. BJ8162IR)	11/04/01	Permit issued
Variation determined EPR/BJ8162IR/V002 (PAS Billing ref. BM5208IX)	21/06/02	Variation issued
Variation determined EPR/BJ8162IR/V003 (PAS Billing ref. BT9453IQ)	18/12/02	Variation issued
Variation determined EPR/BJ8162IR/V004 (PAS Billing ref. BV4029IQ)	28/09/06	Variation issued
Variation determined EPR/BJ8162IR/V005 (PAS Billing ref. BP3131UT)	20/09/07	Variation issued

Status log of the permit		
Description	Date	Comments
Variation determined EPR/BJ8162IR/V006 (PAS Billing ref. PP3835XP)	21/12/07	Variation issued
Variation determined EPR/BJ8162IR/V007 (PAS Billing ref. CP3234XY)	31/03/08	Variation issued
Partial surrender determined EPR/BJ8162IR/S008 (PAS Billing ref. UP3332GD)	19/01/10	Partial surrender issued
Variation determined EPR/BJ8162IR/V009 (PAS Billing ref. CP3230TT)	19/05/10	Variation issued
Partial surrender determined EPR/BJ8162IR/S010 (PAS Billing ref. RP3139HM)	24/08/10	Partial surrender issued
Variation determined EPR/BJ8162IR/V011 (PAS Billing ref. DP3330CR)	15/02/12	Variation issued
Partial surrender determined EPR/BJ8162IR/S012 (PAS Billing ref. JP3430CL)	22/02/12	Partial surrender issued
Variation determined EPR/BJ8162IR/V013 (PAS Billing ref. CP3834EN)	20/02/12	Variation issued
Regulation 60 Notice sent to the Operator	31/10/14	Issue of a Notice under Regulation 60(1) of the EPR. Environment Agency Initiated review and variation to vary the permit under IED to implement the special provisions for LCP under Chapter III, introducing new Emission Limit Values (ELVs) applicable to LCP, referred to in Article 30(2) and set out in Annex V. The permit is also updated to modern conditions.
Regulation 60 Notice response	11/05/15	Response received from the Operator.
Additional information received	23/11/15	Response to request for further information (RFI) dated 11/11/15.
Variation determined EPR/BJ8162IR/V014 (PAS Billing ref. JP3932AE)	22/12/15	Varied permit issued.

Other Part A installation permits relating to this installation		
Operator	Permit number	Date of issue
Nippon Gohsei	EPR/BR6643IR	09/07/03
Ineos (Manufacturing) Hull Limited	EPR/HP3235CG	23/02/12

End of introductory note

Notice of variation

The Environmental Permitting (England and Wales) Regulations 2010

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2010 varies

Permit number

EPR/BJ8162IR

Issued to

BP Chemicals Limited (“the operator”)

whose registered office is

**Chertsey Road
Sunbury upon Thames
Middlesex
TW16 7BP**

company registration number 194971

to operate a regulated facility at

**Hull Chemical Industry
Saltend
Hull
HU12 8DS**

to the extent set out in the schedules.

The notice shall take effect from 01/01/2016

Name	Date
Anne Nightingale	22/12/15

Authorised on behalf of the Environment Agency

Schedule 1 – conditions to be deleted

The following conditions are deleted following an Environment Agency initiated variation.

- Condition 3.6.3

Schedule 2 – conditions to be amended

The following conditions are amended as detailed, following an Environment Agency initiated variation.

- Condition 1.2.1 is amended to include energy efficiency conditions specifically to the generation of electricity and heat and to maximise the energy recovered from the use of wastes as a fuel.

1.2.1 The operator shall:

- (a) take appropriate measures to ensure that energy is used efficiently in the activities;
- (b) take appropriate measures to ensure that energy is recovered with a high level of energy efficiency and energy is used efficiently in the activities;
- (c) take appropriate measures to ensure the efficiency of energy generation at the permitted installation is maximised;
- (d) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and
- (e) take any further appropriate measures identified by a review.

- Schedule 1 Table S1.1 is amended to clearly differentiate between the Chapter III combustion activity on Boiler SB7 and the Chapter IV waste incineration activity on Boiler SB8 and to include the net rated thermal input of all Section 1.1 Part A(1) combustion appliances. Table S1.1 now reads:

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A1	Section 4.1 A(1)(a)(ii), producing organic chemical compounds containing oxygen.	Production of acetic acid Production of acetic anhydride	Receipt of raw materials to final product dispatch or use
A2	Section 4.2 A(1)(a)(i), producing inorganic chemical gases	Production of ammonia, hydrogen and carbon monoxide	Receipt of raw materials to final product dispatch
A3	Section 4.2 A(1)(a)(iii)	Production of ammonium hydroxide	Receipt of raw materials to final product dispatch or use
A4	Section 4.8 B(a)(iii)	Storage of anhydrous ammonia 14046 tonnes	Receipt of raw materials to final product dispatch or use

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A5	Section 1.1 A(1)(a), burning of any fuel in an appliance with a thermal input of 50 megawatts or more.	LCP12: The operation of a steam raising boiler (SB7) with a net rated thermal input of 96.4MW fired on natural gas and process reject gases.	Receipt, storage and treatment of boiler feed water; receipt and handling of natural gas and 'other gases (hydrogen and carbon monoxide); operation of installed boiler and associated equipment, including water treatment plant; distribution of steam.
A6	Section 5.1 A(1)(a): Incineration of hazardous waste in a co-incineration plant with a capacity of >10 tonne per day.	Production of steam on Boiler (SB8) via the Incineration of PLF co-fired with natural gas (co-incinerator)	Receipt of waste as specified, co-incineration, recovery of heat, generation of steam, recovery of condensate, and discharge of combustion products to atmosphere.
	Directly Associated Activity		
A7	Directly associated activity	Incineration of VOC off-gases from the HRTC research and development plants	Operation of HRTC Thermal Oxidiser and discharge of combustion products to atmosphere
A8	Directly associated activity	Incineration of VOC off-gases from ship loading/unloading activities at the jetty	Operation of Jetty Thermal Oxidiser and discharge of combustion products to atmosphere
A9	Directly associated activity	Operation of fired heaters with aggregate capacity 18.42MW thermal input	K-4001 K1: Plant Start-up Heater with a net rated thermal input of 2.97MW fired on natural gas. K-4002 K2: Super Heater with a net rated thermal input of 1.62MW fired on natural gas and process reject gases. A5CO: Plant Heater with a net rated thermal input of 14.1MW fired on natural gas and process reject gases.
A10	Directly associated activity	BP Trade effluent discharge	To effluent streams at TF-143 (Aquarius)
A11	Directly associated activity	Trade effluent discharge to River Humber via Old Fleet Drain	From trade effluent pit to Old Fleet Drain
A12	Directly associated activity	Disposal of trade effluent from the Nippon Gohsei, Ineos and Vivergo sites	To effluent streams at TF-143 (Aquarius)
A13	Directly associated activity	Disposal of trade effluent from the adjacent Air Products Plant	To Yorkshire Water stream via T-60

Table S1.1 activities			
Activity reference	Activity listed in Schedule 1 of the EP Regulations	Description of specified activity	Limits of specified activity
A14	Directly associated activity	Gas condensate storage and dispatch	From receipt of gas condensate to storage and export in ships via the jetty terminal
A15	Directly associated activity	Receipt and dispatch of vinyl acetate, ethyl acetate, anhydrous ammonia, bio-ethanol and methanol using road tanker loading and jetty facilities	From receipt to storage and dispatch

- Table S1.2 is amended to include new operating techniques associated with LCP12. Table S1.2 now reads

Table S1.2 Operating techniques		
Description	Parts	Date Received
Application for variation BV4029IQ (V004)	The response to questions C2.1 to 2.12 given in pages 1-61 of the application, Appendix 1 (all pages), Appendix 2 pages 1-70, Appendix 3 pages 1-82, Appendix 4 pages 1-18, Appendix 6 pages 1-44, Appendix 7 pages, Appendix 8 pages 1-9, in all cases excluding sections headed "BAT Discussion"	22/08/03
Further information applicable to variation BV4029IQ (V004)	Annex 3 pages 1-34, Annex 5 pages 1-7	28/08/04
	Atmospheric/noise monitoring data	12/10/05
	Releases to Air from tanker loading operations, Logistics/Air 25-27. Monitoring of releases to Water	14/10/05
	Releases to water and operation during the 'Pea Season'.	08/03/06
	Copy of Application for variation to IPC Authorisation AK4591 to comply with the Waste Incineration Directive. Uncertainty data for DF/Air 13a CEMS	27/03/06
	Uncertainty Calculation methodology	27/03/06
Application for variation CP3234XY (V007)	All Parts	12/03/08
Application for variation EPR/BJ8162IR/V013	Non-technical summary and Compressor C201 casing blow down description	Duly made 12/12/13
Response to regulation 60(1) Notice – request for information dated 31/10/14	Compliance route and operating techniques identified in response to questions (name of LCP).	11/05/15
Receipt of additional information to the regulation 60(1) Notice. requested by letter dated 11/11/15	Compliance route and operating techniques identified in response to questions (compliance route), (LCP configuration), (compliance route), (net rated thermal input), (MSUL/MSDL), (ELVs).	23/11/15

- Table S1.3 is amended to remove those Improvement programme requirements recorded as 'completed' in variation EPR/BJ8162IR/V013 and to include new requirements associated with LCP12. Table S1.3 now reads:

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC1	The Operator shall undertake a direct toxicity assessment of the release from emission points W1, W2, W3, and W4, W10, W11, W12, or otherwise demonstrate to the Agency's satisfaction that the Installation does not give rise to acute toxic effects in the receiving waters. The results of this assessment shall be submitted in writing to the Environment Agency including, where appropriate, a timetable for improvements to prevent any acute toxic effects in the receiving waters.	Complete
IC2	A formal water use efficiency audit shall be undertaken and a written report submitted to the Environment Agency.	Completed
IC3	The Operator shall review the provision of MCERTS accreditation for the monitoring equipment, personnel and organisations employed for the emissions monitoring programme in condition 2.10.1 and propose a time table for achieving this standard for any elements that are not MCERTS certified.	Complete
IC4	The Environment Agency expects emissions monitoring to be carried out using methods that meet the relevant CEN standards. If relevant CEN standards are not available, ISO standards, national standards or international standards that ensure the provision of data of an equivalent scientific quality should be used. The Operator shall review all methods used to monitor emissions to air and water that do not meet the relevant CEN standard with the aim of demonstrating that either they are BAT or, if not, that the necessary improvements are identified to bring them in line with BAT. A written report shall be submitted to the Environment Agency, which shall include details of any proposed improvements (including proposed time-scales).	Complete
IC5	The Environment Agency expects emissions monitoring to be carried out using continuous methods where appropriate, and provides appropriate guidance. The Operator shall review all methods used to monitor emissions to air and water that do not meet this criterion with the aim of demonstrating that continuous monitoring either is not appropriate, or if appropriate, that the necessary improvements are identified. A written report shall be submitted to the Environment Agency, which shall include details of any proposed improvements, including proposed time-scales, and taking into account the concept of BAT and relevant Agency Guidance.	Complete
IC6	The Operator shall review the design, operation and maintenance of tanks associated with the acetyls plants, Appendix 2 of the Application refers, and provide a report to the Agency. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing releases to the environment, taking into account the concept of BAT and relevant Agency Guidance. The report shall consider tank replacement options in addition to appropriate abatement and operational options.	Complete
IC7	The Operator shall review the design, operation and maintenance of all combustion plant, excluding flares, and provide a report for the Agency. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing releases to the environment, taking into account the feasibility of using low-NOx burners, the concept of BAT and relevant Agency Guidance.	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC8	The Operator shall review the design, operation and maintenance of all flares, and provide a report to the Agency. The report shall include proposals, including implementation time-scales, for introducing alternatives to flaring, where this is feasible, taking into account the concept of BAT and relevant Agency Guidance. The review shall include consideration of the fitting of suitable reliable ignition systems, where not already installed.	Complete
IC9	The Operator shall review releases to controlled waters and to sewer, and provide a report to the Agency. The report shall include proposals, including implementation time-scales, for reducing releases to the environment, taking into account the concept of BAT and relevant Agency Guidance. The report shall include an assessment of treatment options for releases not otherwise treated by the Sewerage Undertaker. The report shall include also consideration of the elimination of bund drains, provision of secondary containment, and the elimination of impervious bund floors and walls.	Initial report received 26/09/08. Further submission required by 28/02/16.
IC10	The Operator shall review the design, operation and maintenance of on-shore plant associated with the jetty, and provide a report to the Agency. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing releases to the environment, taking into account the feasibility of recovering heat from the jetty oxidiser, the concept of BAT and relevant Agency Guidance.	Complete
IC11	The Operator shall provide a report to the Agency concerning releases from release points Acetyls/Air 6A, and Acetyls /Air 6B. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing releases to the environment, taking into account the concept of BAT and relevant Agency Guidance.	Complete
IC12	The Operator shall review the use of methyl iodide and provide a report to the Agency. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing releases of iodine to the environment, taking into account the concept of BAT and relevant Agency Guidance.	Complete
IC13	No longer required	-----
IC14	The Operator shall review the design, operation and maintenance of tanks associated with the Logistics Group operations, excluding tanks specified in improvement condition 17 below, and provide a report to the Agency. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing releases to the environment, taking into account the concept of BAT and relevant Agency Guidance. The report shall consider tank replacement options in addition to appropriate abatement and operational options.	Initial report received 26/09/08. Further submission required by 30/06/16
IC15	No longer required	-----
IC16	The Operator shall review the design, operation, spillage containment and maintenance of all road tanker loading and unloading facilities, and provide a report to the Agency. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing releases to the environment, taking into account the concept of BAT and relevant Agency Guidance.	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC17	The Operator shall review the design, operation, bunding and maintenance of tanks T12, T14, T3001, T3002, T3003, and provide a report to the Agency. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing releases to the environment, taking into account the concept of BAT and relevant Agency Guidance. The report shall consider tank replacement options in addition to appropriate abatement and operational options.	Initial report received 11/10/08. Further submission required by 30/06/16
IC18	The Operator shall provide proposals for an effective off-site odour monitoring and assessment programme, for implementation within 1 month from the issue of this Variation BV4029 as part of an odour management plan.	Complete
IC19	From 30 September 2006, all trade effluent normally collected in Project Aquarius Tank T60 will be subject to suitable treatment throughout the year, unless otherwise allowed within the Permit or agreed in writing with the Agency.	Complete
IC20	The Operator shall review the design, operation and maintenance of the jetty thermal oxidiser, and provide a report for the Agency. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing releases to the environment, taking into account the concept of BAT and relevant Agency Guidance. The report shall contain commissioning reports and consideration of the feasibility of fitting waste heat recovery plant to each oxidiser.	31/12/16
IC21	The Operator shall review the design, operation and maintenance of cooling towers and provide a report to the Agency. The report shall include proposals, including implementation time-scales, for preventing, and where this is not feasible, for reducing steam plumes, taking into account the concept of BAT and relevant Agency Guidance.	Complete
IC22	The Operator shall submit a proposal to the Agency to carry out tests to determine the size distribution of the particulate matter in the exhaust gas emissions to air from emission point DF Air14, identifying the fractions within the PM10, PM2.5 and PM1.0 ranges. The proposal shall include a timetable to carry out such tests and produce a report on the results. On receipt of written agreement by the Agency to the proposal and the timetable, the Operator shall carry out the tests and submit to the Agency a report on the results.	Complete
IC23	Fugitive emissions to air shall be reviewed on an annual basis and a summary report on this review shall be sent to the Environment Agency detailing such releases and the measures taken to reduce them. The report on fugitive releases shall demonstrate the application of an appropriate effective and structured LDAR (leak detection and repair) system.	Complete
IC24	The operator shall provide reports to the Environment Agency, every 3 months commencing on 01.01.07, detailing materials flared. The reports shall explain the reasons for flaring, both, routine and non-routine, with actions taken to reduce flaring. The report shall also include, but not be limited to reports on smoke, flame size, luminosity, noise, flame stability, effectiveness of remote visual surveillance, complaints received from the public and progress against a plan aimed at further reducing and minimising flaring of hydrocarbons.	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC25	The Operator shall calibrate and verify the performance of Continuous Emission Monitors for release points and parameters as specified in Table 2.2.2 and 2.2(a) to BS EN 14181 and submit a summary report to the Environment Agency as evidence of compliance with the requirements of BS EN 14181.	Complete
IC26	The Operator shall carry out a review of the monitoring of water release points W3-W12, the review to include an environmental risk assessment, and provide a report to the Environment Agency. The review shall include, but not be limited to, assessment of the requirement for: continuous monitoring of releases, provision of oil separators, provision of intermediate hold-up and pumped discharge, taking into account Agency guidance and the concept of BAT.	Initial report received 22/12/07. Further submission required by 28/02/16
IC27	The Operator shall supply the Environment Agency with a report on progress with identified improvements identified in Table 32 Environmental Improvement Plan, contained in the Application	Complete
IC28	The Operator shall review the noise characteristics of major noise emitting plant Items including flares within the installation, and provide the Environment Agency with a three dimensional Noise Map, designed to quantify any significant effect on people and environmental receptors beyond the installation boundary, taking into account relevant guidance, including WG-AEN Good Practice Guide for Strategic Noise Mapping and the Production of Associated Data on Noise Exposure v2 dated 13 January 2006. The report will propose, with timescales, appropriate improvements as may be required to comply with BAT.	Complete
IC29	The Operator shall provide the Agency with quarterly reviews of releases from those release points which are subject to an annual release limit, identifying significant departures from normal operation, improvements and trends where appropriate.	Complete
IC30	The DF2 Plant is permitted to operate until 31 July 2007	Complete
IC31	The operator shall provide the Agency with a commissioning report following commissioning of new gas condensate Tanks T9001, T9002. The report shall include, but not be limited to assessment of all releases to the environment, as well as containment provision, and protection of groundwater and other environmental receptors. The report shall demonstrate also that the plant as installed reflects BAT as described in relevant Agency guidance. The report shall include consideration of appropriate abatement technologies.	Complete
IC32	The operator shall provide the Agency with a commissioning report following re-start of the SB8 boiler burning PLF. The report shall include, but not be limited to assessment of all releases to the environment, operation of the new CEM monitor, as well as all relevant parameters which are subject of the WID.	Complete
IC33	The Operator shall provide the Agency with a report detailing plans and progress in DF and associated plant shutdown, decommissioning, decontamination demolition and associated activities. The report shall include, but not be limited to all precautions taken, to avoid releases of pollutants, to avoid contamination of land, groundwater and other environmental receptors, to avoid excessive noise. The report shall also update, as appropriate, the Site Condition Report and demonstrate the appropriate disposal routes for all wastes generated.	Complete

Table S1.3 Improvement programme requirements		
Reference	Requirement	Date
IC34	The operator shall provide the Agency with a commissioning report following commissioning of tanks T7001, T7002 on PLF duty. The report shall include, but not be limited to assessment of all releases to the environment, as well as containment provision, and protection of groundwater and other environmental receptors. The report shall demonstrate also that the plant as installed reflects BAT as described in relevant Agency guidance.	Complete
IC35	The operator shall review options for abatement of VOC emissions from the loading of road tankers from the northern gantry of loading station FS27. On completion of the review the operator shall submit a report to the Agency outlining a full options appraisal of the proposed abatement method including timescales for implementation.	Complete
IC36	The operator shall review options for reducing emissions of Carbon Monoxide from release point Acetyls/K1/Air2. On completion of the review the operator shall submit a report to the Agency outlining a full options appraisal of the proposed methods including timescales for implementation	Complete
IC37	For LPCD LCP147 (now LCP92 under IED), annual emissions of dust, sulphur dioxide and oxides of nitrogen including energy usage for the year 01/01/2015 to 31/12/2015 shall be submitted to the Environment Agency using form AAE1 via the NERP Registry. If the LPCD LCP was a NERP plant the final quarter submissions shall be provided on the RTA 1 form to the NERP Registry.	28/01/16

- Schedule 2 Table S2.1 is amended to correct a typographical error in permit Variation EPR/BJ8162IR/V013. Table S2.1 now reads:

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	Specification
WT1-PLF (Primary liquid Fuel) ESC 07-01-04	SB8 boiler (DF/Air14) waste category as classified in application:- Chlorine <20ppm and Sulphur <20ppm Maximum throughput 8760 tonnes/annum, 1 tonne/hour

- Schedule 3 Table S3.1 is amended only in relation to LCP12 release point Acetyls/Air 10 SB7 boiler. All other emission limit values and monitoring requirements listed in Table S3.1 of permit variation number EPR/BJ8162IR/V013 remain unaltered. The remainder of Table S3.1 is unchanged. The amended emission limits and monitoring requirement for Acetyls / Air 10 now read:

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location	Parameter	Source	Limit (including unit)	Reference period	Monitoring frequency	Monitoring standard or method
Acetyls/Air 10 [Note 10]	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)	LCP12 Boiler SB7 fired on natural gas supplemented by hydrogen and/or carbon monoxide	200 - 300 mg/m ³	-	At least every 6 months	BS EN 14792
	Oxides of Nitrogen (NO and NO ₂ expressed as NO ₂)		300 mg/m ³	-		BS EN 14792
	Carbon Monoxide		30 mg/m ³	-		BS EN 15058
	Sulphur Dioxide		35 mg/m ³	-	At least every 6 months	Concentration by calculation, as agreed in writing with the Environment Agency
	Dust		5 mg/m ³	-		
	Oxygen		-	-	Periodic As appropriate to reference	BS EN 14789
	Water Vapour		-	-	Periodic As appropriate to reference	BS EN 14790
	As required by the Method Implementation Document for BS EN 15259		-	-	Pre-operation and when there is a significant operational change	BS EN 15259

Note 10:- These limits do not apply during start up or shut down.

- Table S3.4 is amended to remove reference to the National Emissions Reduction Plan (NERP). The revised Table S3.4 now reads:

Table S3.4 Annual limits (excluding start up and shut down except where otherwise stated).		
Substance	Medium	Limit (including unit)
Sulphur dioxide	Air	2.5 tonnes
Oxides of nitrogen	Air	300 tonnes
Methyl Acetate	Air	7 tonnes
Acetic Anhydride	Air	15 tonnes
Acetic Acid	Air	150 tonnes
Methanol	Air	100 tonnes
Methane	Air	35 tonnes
Ethyl Acetate	Air	10 tonnes
Vinyl Acetate Monomer	Air	30 tonnes
Benzene	Air	1.0 tonnes
VOC Total	Air	145 tonnes
Iodine	Air	7 tonnes
Methyl iodide	Air	0.75 tonnes
Carbon Monoxide	Air	300 tonnes
Ammonia	Air	13 tonnes
Mercury	Water	0.15 kg
Cadmium	Water	0.3 kg
TOC	Water	35 tonnes

- Schedule 4 Table S4.1 is amended to set the reporting requirements of LCP12. The amended Table S4.1 now reads:

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Oxides of nitrogen	Acetyls/Air 10 :- LCP12	Every 6 months for periodic monitoring	1 January, 1 April, 1 July, 1 October
Carbon Monoxide			
Sulphur Dioxide			
Dust			
Emissions to air	Mass and concentration releases of specified substances from: <ul style="list-style-type: none"> • Installation in total • Acetyls/ Air • Acetyls/ K1/Air • HRTC/ Air • DF/Air • Logistics/ Air 	Every 3 months, 6 months or 12 months (as specified)	
Emissions to water	W2, W4, W10		

Table S4.1 Reporting of monitoring data			
Parameter	Emission or monitoring point/reference	Reporting period	Period begins
Ambient air monitoring	VOCs and odour monitoring at specified locations		

- Table S4.2 is amended to set the reporting requirements of LCP12.

Table S4.2 Performance parameters		
Parameter	Frequency of assessment	Units
Thermal Input Capacity for LCP12	Annually	MW
Operating hours for LCP12	Annually	hrs
Annual Fuel Usage for LCP12	Annually	TJ
Total Emissions to Air of NO _x , SO ₂ , and dust for LCP12	Annually	t
Energy efficiency	Annually	MWth and CO ₂ tonnes
Energy usage	Annually	MWh
Water usage	Annually	t
Waste disposal and/or recovery return.	Annually	
Performance Indicators	Annually	
Performance Indicators, Co-incinerators	Every 6 months	

- Table S4.3 is amended to incorporate the reporting requirements for LCP12. Table S4.3 now reads:

Table S4.3 Reporting forms				
Media/ parameter	Reporting format	Starting Point	Agency recipient	Date of form
Air & Energy	Form IED AR1 – SO ₂ , NO _x and dust mass emission and energy	01/01/16	National	31/12/15
LCP	Form IED HR1 – operating hours	01/01/16	National	31/12/15
Air	Form IED PM1 – discontinuous monitoring and load for LCP12	01/01/16	Area Office	31/12/15
Air	Form Air 1 or other form as agreed in writing by the Agency	-	Area Office	01/01/10
Water	Form Water 1 or other form as agreed in writing by the Agency	-	Area Office	01/01/10
Water usage	Form Water Usage1 or other form as agreed in writing by the Agency	-	Area Office	01/01/10
Energy usage	Form Energy 1 or other form as agreed in writing by the Agency	-	Area Office	01/01/10

Table S4.3 Reporting forms				
Media/parameter	Reporting format	Starting Point	Agency recipient	Date of form
Other performance indicators	Form Performance 1 or other form as agreed in writing by the Agency	-	Area Office	01/01/10
Odour	Form OE1 or other form as agreed in writing by the Agency	-	Area Office	01/01/10
Waste	Form R1 or other form as agreed in writing by the Agency	-	Area Office	01/01/10

- Schedule 6 is amended to include interpretation guidance related to Chapter III of the IED and LCP12. All other aspects of Schedule 6 remain unaltered.

“dynamic emission limit value” (DELV) means an emission limit that varies in accordance with Article 40 of the Industrial Emissions Directive.

“ELV” means emission limit value.

“Energy efficiency” the annual net plant energy efficiency means the value calculated from the operational data collected over the year.

“large combustion plant” or “LCP” is a combustion plant or group of combustion plants discharging waste gases through a common windshield or stack, where the total thermal input is 50 MW or more, based on net calorific value. The calculation of thermal input, excludes individual combustion plants with a rated thermal input below 15MW.

“MCR” means maximum continuous rating.

“MSDL” means minimum shut-down load as defined in Implementing Decision 2012/249/EU.

“MSUL” means minimum start-up load as defined in Implementing Decision 2012/249/EU.

“Natural gas” means naturally occurring methane with no more than 20% by volume of inert or other constituents.

“ncv” means net calorific value.

“operational hours” are whole hours commencing from the first unit ending start up and ending when the last unit commences shut down.

Schedule 3 – conditions to be added

The following conditions are added following an Environment Agency initiated variation.

- **Condition 2.3.15 is added.**
2.3.15 For the following activity referenced in schedule 1, table S1.1: A5 (LCP12). Without prejudice to condition 2.3.1, the activities shall be operated in accordance with the “Electricity Supply Industry IED Compliance Protocol for Utility Boilers and Gas Turbines” revision 1 dated February 2015 or any later version unless otherwise agreed in writing by the Environment Agency.
- **Condition 2.3.16 is added.**
2.3.16 For the following activity referenced in schedule 1, table S1.1: A5 (LCP12). The end of the start up period and the start of the shutdown period shall conform to the specifications set out in Schedule 1, tables S1.2 and S1.4.

- Condition 3.1.2.1 is added.

3.1.2.1 For the following activity referenced in schedule 1, table S1.1: A5 (LCP12). The emissions of oxides of nitrogen shall not exceed 200mg/m³ except where the natural gas is supplemented by hydrogen and / or carbon monoxide when the emissions of oxides of nitrogen shall not exceed the emission limit value calculated using IED Article 40(1) as detailed in question 4 of the Operators response to a request for further information; request dated 11/11/15, response dated 23/11/15.

- Condition 3.2.3 is added.

3.2.3 The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan which identifies and minimises the risks of pollution from emissions of substances not controlled by emission limits;
- implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

- Condition 3.3.2 is added.

3.3.2 The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan which identifies and minimises the risks of pollution from odour;
- implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

- Condition 3.4.2 is added.

3.4.2 The operator shall:

- if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan which identifies and minimises the risks of pollution from noise and vibration;
- implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

- Condition 4.3.8 is added

4.3.8 The operator shall inform the Environment Agency in writing of the closure of any LCP within 28 days of the date of closure.

- Schedule 1 Table S1.4 is added.

Table S1.4 Start-up and Shut-down thresholds		
Emission Point and Unit Reference	“Minimum Start-Up Load” Load in MW and as steam flow rate in tonnes/hour and as percent of rated thermal output (%)	“Minimum Shut-Down Load” Load in MW and as steam flow rate in tonnes/hour and as percent of rated thermal output (%)
Acetyls/Air 10:LCP12	36t/hr steam; 30% of ISO base load at 44.5bar and 360°C	23t/hr steam; 20% of ISO base load at 43bar and 360°C

END OF NOTICE