Notice of variation and consolidation with introductory note

The Environmental Permitting (England & Wales) Regulations 2016

BAE Systems (Operations) Limited

Samlesbury Aerodrome
Balderstone
Lancashire
BB2 7LF

Variation application number

EPR/BV0414IV/V003

Permit number

EPR/BV0414IV

Samlesbury Aerodrome
Permit number EPR/BV0414IV

Introductory note

This introductory note does not form a part of the notice

Under the Environmental Permitting (England & Wales) Regulations 2016 (schedule 5, part 1, paragraph 19) a variation may comprise a consolidated permit reflecting the variations and a notice specifying the variations included in that consolidated permit.

Schedule 1 of the notice specifies the conditions that have been varied and schedule 2 comprises a consolidated permit which reflects the variations being made. Only the variations specified in schedule 1 are subject to a right of appeal.

This variation is for the following:

Central Treatments Facility

- Replacement of existing Chromic acid anodising process line with new Thin Film Sulphuric Acid (TFSAA) anodise process line.
- Removal of all decommissioned equipment associated with the Chromic acid anodising process line and the two existing external scrubber units (AE1 and AE2).
- Removal of activity Section 2.3 Part A(1)(a) CTF – Clean and Pickle line – Acid treatment using hydrofluoric acid, nitric acid and alkaline solutions in Table S1.1. In addition removal of associated emission points AE3 and AE4.
- Revised tanker/chemical delivery area for process improvement.
- Expansion of the existing effluent treatment plant (ETP) for increased storage and treatment capacity. This includes
    - Installation of mezzanine within the building
    - Modification of the existing external concrete bund
    - Replacement of 7 above ground storage tanks (ASTs) with 7 new ASTs.
    - Replacement with new softener and carbon reverse osmosis pre-treatment system for de-ionised water

1-Shed

- To remove reference to organic solvent degreasing using Neu-Tri E (Trichloroethylene) and add the replacement solvent which is Perchloroethylene (Tetrachloroethylene).

Site boundary

- An extension to the permit boundary to incorporate the proposed changes.

The rest of the installation remains unchanged and continues to operate as follows:

The installation is located within the confines of the Samlesbury Aerodrome site and falls within two local authority boundaries, the Ribble Valley District and the South Ribble District.

The installation produces components and major sub-assemblies for a variety of military aircraft platforms.

The activities falls under the following Schedule 1 listed activities of the Environmental Permitting Regulations:

• Section 2.3 Part A(1)(a) - Surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30m^3.

• Section 4.2 Part A (1)(f) – Any activity which is likely to result in the release into the air of any acid forming oxide of nitrogen.

Section 5.4 Part A(1)(a)(ii) – Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment.

The two main installation areas include the CTF and the No. 1 Shed Fabrications.

The CTF consists of:

• PFD Line – defect testing using fluorescent dye consisting of acid and alkaline-based cleaning tanks and pickling solutions, with a total aggregated process volume of 71.28m^3.

• Thin Film Sulphuric Acid Anodise (TFSAA) line – designed to process 128 flight bars within 96 hours of continuous running at 76% total availability. The process line is composed of 28 process stations which are related to loading/unloading, inspection, treatment or rinsing. The aggregated volume of process tanks is 220.46m^3.

The No. 1 Shed Fabrications consists of:

• Chemical milling to remove metal from aluminium and titanium components by dipping into a caustic or acid bath without external energy source. The contents of the baths range from hydrogen fluoride (HF) and nitric acids for titanium removal, alkaline solutions for aluminium removal, and a latex maskant tank for masking of components.

• Organic solvent degreasing using Perchloroethylene to remove any oils and greases prior to further processing of components.

There are two effluent treatment plants within the installation boundary where process waters from the various treatment facilities are treated to an acceptable standard before discharging to sewer.

There are no direct discharges to controlled waters from the installation.

The Operator has an Environmental Management System (EMS) certified to the ISO14001 standard.

The installation is an ‘Upper Tier’ Control of Major Accident Hazards (COMAH) site.

The schedules of this notice specify the changes made to the original 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 EPR/BV0414IV/A001	Duly made 29/07/2004	
Additional information received	14/10/2004	
Permit determined EPR/BV0414IV	16/12/2004	Permit issued to BAE Systems (operations) Limited.
Application EPR/BV0414IV/V002 (variation and consolidation)	Duly made 17/03/2017	To replace the PFD line with other changes to the CTF, addition of CHP, and to update permit to modern conditions.
Schedule 5 Notice for further information sent 18/05/2017, follow up email sent 06/06/2017	Received 01/06/2017	Non-technical summary, changes to permitted activities, and monitoring standard for stack emissions.
	Received 16/06/2017	Confirmation of ETP maximum daily capacity.

Status log of the permit		
Description	**Date**	**Comments**
	Received 03/07/2017	H1 emission to sewer assessment and confirmation of whether effluent is hazardous.
Variation determined and consolidation issued EPR/BV0414IV/V002	01/08/2017	Varied and consolidated permit issued in modern format
Application EPR/BV0414IV/V003 (variation and consolidation)	Duly made 25/03/2024	To replace the Chromic acid anodising process line with other changes to the CTF and 1-Shed, extension of site boundary, and increasing ETP storage and treatment capacity.
Additional information received	08/05/2024	Information regarding the expected timeframe for completely phasing out the chromic acid anodising line.
	17/06/2024	Confirmed to remove the S2.3 Part A(1)(a) CTF – Clean and Pickle line activity from Table S1.1 under Schedule 1 of the permit.
	17/07/2024	Email response to RFI dated 15/07/2024 providing raw input data for H1 assessment for emissions to water.
	07/08/2024	Email response providing National Grid Reference for point of discharge from WwTW and confirmed the use of pollutant metals total concentration data.
	09/09/2024	Response received against Schedule 5 notice sent on 06/09/2024
	13/09/2024	Email response to the RFI sent on 11/09/2024 regarding tank bund volumes.
	23/09/2024	Email response to the RFI sent on 19/09/2024 regarding site plan and risks from carry over or drips associated with Bath 23 in the absence of a rinse process.
Variation determined and consolidation issued EPR/BV0414IV/V003 (Billing Ref. HP3431DM)	03/10/2024	Varied and consolidated permit issued in modern format to BAE Systems (Operations) Limited.

End of introductory note

Notice of variation and consolidation

The Environmental Permitting (England and Wales) Regulations 2016

The Environment Agency in exercise of its powers under regulation 20 of the Environmental Permitting (England and Wales) Regulations 2016 varies

Permit number

EPR/BV0414IV

Issued to

BAE Systems (Operations) Limited ("the operator")

whose registered office is

Victory Point
Lyon Way
Frimley
Camberly
Surrey
England
GU16 7EX

company registration number 01996687

to operate a regulated facility at

Samlesbury Aerodrome
Balderstone
Lancashire
BB2 7LF

to the extent set out in the schedules.

The notice shall take effect from 03/10/2024.

Name	Date
Susan Anderson	**03/10/2024**

Authorised on behalf of the Environment Agency

Schedule 1

T**he following conditions were varied as a result of the application made by the operator:**

Table S1.1 as referred to in condition 2.1.1 has been varied to include the new thin film sulphuric acid anodising (TFSAA) process line.

Table S1.1 as referred to in condition 2.1.1 has been varied to remove clean and pickle line which has been decommissioned.

Table S1.1 as referred to in condition 2.1.1 has been varied to replace trichloroethylene with perchloroethylene and to limit the consumption of the degreasing solvent to less than 1tonne/annum.

Table S1.2 as referred to in condition 2.3.1 has been varied to include additional operating techniques.

Table S1.3 as referred to in condition 2.4.1 has been varied to reflect the addition of IC4 and IC5.

Table S3.1 as referred to in conditions 3.1.1, 3.1.3, 3.5.1 and 3.5.4 has been varied to remove emission points A2, A3 and A4, to replace the parameter for emission point A8, to change the limits for A8 and for the addition of emission point A10.

Table S4.1 as referred to in condition 4.2.3 has been varied to remove reporting for emission point A8.

Table S4.2 as referred to in condition 4.2.2 has been varied to replace the solvent Trichloroethylene with Perchloroethylene.

Table S4.4 as referred to in condition 4.2.2 and 4.2.3 has been updated.

Schedule 7 site plan as referred to in condition 2.2.1 has been updated.

T**he following conditions were varied as a result of Environment Agency initiated variation:**

Table S1.1 as referred to in condition 2.1.1 has been varied to reflect the correct thermal input values of the standby gas boilers.

Table S1.3 as referred to in condition 2.4.1 has been varied to update the date in the improvement conditions table.

Schedule 2 – consolidated permit

Consolidated permit issued as a separate document.

Permit

The Environmental Permitting (England and Wales) Regulations 2016

Permit number

EPR/BV0414IV

The Environment Agency hereby authorises, under regulation 13 of the Environmental Permitting (England and Wales) Regulations 2016

BAE Systems (Operations) Limited (“the operator”),

whose registered office is

Victory Point
Lyon Way
Frimley
Camberly
Surrey
England
GU16 7EX

company registration number 01996687

to operate an installation at

Samlesbury Aerodrome
Balderstone
Lancashire
BB2 7LF

to the extent authorised by and subject to the conditions of this permit.

Name	Date
Susan Anderson	**03/10/2024**

Authorised on behalf of the Environment Agency

Conditions

1 Management

1.1 General management

1.1.1 The operator shall manage and operate the activities:

(a) in accordance with a written management system that identifies and minimises risks of pollution, including those arising from operations, maintenance, accidents, incidents, non-conformances, closure and those drawn to the attention of the operator as a result of complaints; and

(b) using sufficient competent persons and resources.

1.1.2 Records demonstrating compliance with condition 1.1.1 shall be maintained.

1.1.3 Any person having duties that are or may be affected by the matters set out in this permit shall have convenient access to a copy of it kept at or near the place where those duties are carried out.

1.2 Energy efficiency

1.2.1 The operator shall:

(a) take appropriate measures to ensure that energy is used efficiently in the activities;

(b) review and record at least every four years whether there are suitable opportunities to improve the energy efficiency of the activities; and

(c) take any further appropriate measures identified by a review.

1.3 Efficient use of raw materials

1.3.1 The operator shall:

(a) take appropriate measures to ensure that raw materials and water are used efficiently in the activities;

(b) maintain records of raw materials and water used in the activities;

(c) review and record at least every four years whether there are suitable alternative materials that could reduce environmental impact or opportunities to improve the efficiency of raw material and water use; and

(d) take any further appropriate measures identified by a review.

1.4 Avoidance, recovery and disposal of wastes produced by the activities

1.4.1 The operator shall take appropriate measures to ensure that:

(a) the waste hierarchy referred to in Article 4 of the Waste Framework Directive is applied to the generation of waste by the activities; and

(b) any waste generated by the activities is treated in accordance with the waste hierarchy referred to in Article 4 of the Waste Framework Directive; and

(c) where disposal is necessary, this is undertaken in a manner which minimises its impact on the environment.

1.4.2 The operator shall review and record at least every four years whether changes to those measures should be made and take any further appropriate measures identified by a review.

2 Operations

2.1 Permitted activities

2.1.1 The operator is only authorised to carry out the activities specified in schedule 1 table S1.1 (the "activities").

2.2 The site

2.2.1 The activities shall not extend beyond the site, being the land shown edged in green on the site plan at schedule 7 to this permit.

2.3 Operating techniques

2.3.1 The activities shall, subject to the conditions of this permit, be operated using the techniques and in the manner described in the documentation specified in schedule 1, table S1.2, unless otherwise agreed in writing by the Environment Agency.

2.3.2 If notified by the Environment Agency that the activities are giving rise to pollution, the operator shall submit to the Environment Agency for approval within the period specified, a revision of any plan or other documentation ("plan") specified in schedule 1, table S1.2 or otherwise required under this permit which identifies and minimises the risks of pollution relevant to that plan , and shall implement the approved revised plan in place of the original from the date of approval, unless otherwise agreed in writing by the Environment Agency.

2.3.3 Any raw materials or fuels listed in schedule 2 table S2.1 shall conform to the specifications set out in that table.

2.3.4 The operator shall ensure that where waste produced by the activities is sent to a relevant waste operation, that operation is provided with the following information, prior to the receipt of the waste:

(a) the nature of the process producing the waste;

(b) the composition of the waste;

(c) the handling requirements of the waste;

(d) the hazardous property associated with the waste, if applicable; and

(e) the waste code of the waste.

2.3.5 The operator shall ensure that where waste produced by the activities is sent to a landfill site, it meets the waste acceptance criteria for that landfill.

2.4 Improvement programme

2.4.1 The operator shall complete the improvements specified in schedule 1 table S1.3 by the date specified in that table unless otherwise agreed in writing by the Environment Agency.

2.4.2 Except in the case of an improvement which consists only of a submission to the Environment Agency, the operator shall notify the Environment Agency within 14 days of completion of each improvement.

3 Emissions and monitoring

3.1 Emissions to water, air or land

3.1.1 There shall be no point source emissions to water, air or land except from the sources and emission points listed in schedule 3 tables S3.1 and S3.2.

3.1.2 The limits given in schedule 3 shall not be exceeded.

3.1.3 Total annual emissions from the emission point(s) set out in schedule 3 tables S3.1 and S3.2 of a substance listed in schedule 3 table S3.3 shall not exceed the relevant limit in table S3.3.

3.1.4 Periodic monitoring shall be carried out at least once every 5 years for groundwater and 10 years for soil, unless such monitoring is based on a systematic appraisal of the risk of contamination.

3.2 Emissions of substances not controlled by emission limits

3.2.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution. The operator shall not be taken to have breached this condition if appropriate measures, including, but not limited to, those specified in any approved emissions management plan, have been taken to prevent or where that is not practicable, to minimise, those emissions.

3.2.2 The operator shall:

(a) 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;

(b) implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.2.3 All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.3 Odour

3.3.1 Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable to minimise the odour.

3.3.2 The operator shall:

(a) 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;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Noise and vibration

3.4.1 Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable to minimise the noise and vibration.

3.4.2 The operator shall:

(a) 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;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.5 Monitoring

3.5.1 The operator shall, unless otherwise agreed in writing by the Environment Agency, undertake the monitoring specified in the following tables in schedule 3 to this permit:

(a) point source emissions specified in tables S3.1 and S3.2.

3.5.2 The operator shall maintain records of all monitoring required by this permit including records of the taking and analysis of samples, instrument measurements (periodic and continual), calibrations, examinations, tests and surveys and any assessment or evaluation made on the basis of such data.

3.5.3 Monitoring equipment, techniques, personnel and organisations employed for the emissions monitoring programme and the environmental or other monitoring specified in condition 3.5.1 shall have either MCERTS certification or MCERTS accreditation (as appropriate), where available, unless otherwise agreed in writing by the Environment Agency.

3.5.4 Permanent means of access shall be provided to enable sampling/monitoring to be carried out in relation to the emission points specified in schedule 3 tables S3.1 and S3.2 unless otherwise agreed in writing by the Environment Agency.

4 Information

4.1 Records

4.1.1 All records required to be made by this permit shall:

(a) be legible;

(b) be made as soon as reasonably practicable;

(c) if amended, be amended in such a way that the original and any subsequent amendments remain legible, or are capable of retrieval; and

(d) be retained, unless otherwise agreed in writing by the Environment Agency, for at least 6 years from the date when the records were made, or in the case of the following records until permit surrender:

(i) off-site environmental effects; and

(ii) matters which affect the condition of the land and groundwater.

4.1.2 The operator shall keep on site all records, plans and the management system required to be maintained by this permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 The operator shall send all reports and notifications required by the permit to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 A report or reports on the performance of the activities over the previous year shall be submitted to the Environment Agency by 31 January (or other date agreed in writing by the Environment Agency) each year. The report(s) shall include as a minimum:

(a) a review of the results of the monitoring and assessment carried out in accordance with the permit including an interpretive review of that data;

(b) the annual production/treatment data set out in schedule 4 table S4.2; and

(c) the performance parameters set out in schedule 4 table S4.3 using the forms specified in table S4.4 of that schedule.

4.2.3 Within 28 days of the end of the reporting period the operator shall, unless otherwise agreed in writing by the Environment Agency, submit reports of the monitoring and assessment carried out in accordance with the conditions of this permit, as follows:

(a) in respect of the parameters and emission points specified in schedule 4 table S4.1;

(b) for the reporting periods specified in schedule 4 table S4.1 and using the forms specified in schedule 4 table S4.4; and

(c) giving the information from such results and assessments as may be required by the forms specified in those tables.

4.2.4 The operator shall, unless notice under this condition has been served within the preceding four years, submit to the Environment Agency, within six months of receipt of a written notice, a report assessing whether there are other appropriate measures that could be taken to prevent, or where that is not practicable, to minimise pollution.

4.2.5 The operator shall submit an annual solvent management plan in order to demonstrate compliance with the requirements of the Industrial Emissions Directive, by 31 January each year in respect of the previous year.

4.3 Notifications

4.3.1 In the event:

(a) that the operation of the activities gives rise to an incident or accident which significantly affects or may significantly affect the environment, the operator must immediately—

(i) inform the Environment Agency,

(ii) take the measures necessary to limit the environmental consequences of such an incident or accident, and

(iii) take the measures necessary to prevent further possible incidents or accidents;

(b) of a breach of any permit condition the operator must immediately—

(i) inform the Environment Agency, and

(ii) take the measures necessary to ensure that compliance is restored within the shortest possible time;

(c) of a breach of permit condition which poses an immediate danger to human health or threatens to cause an immediate significant adverse effect on the environment, the operator must immediately suspend the operation of the activities or the relevant part of it until compliance with the permit conditions has been restored.

4.3.2 Any information provided under condition 4.3.1 shall be confirmed by sending the information listed in schedule 5 to this permit within the time period specified in that schedule.

4.3.3 Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 The Environment Agency shall be notified within 14 days of the occurrence of the following matters, except where such disclosure is prohibited by Stock Exchange rules:

Where the operator is a registered company:

(a) any change in the operator's trading name, registered name or registered office address; and

(b) any steps taken with a view to the operator going into administration, entering into a company voluntary arrangement or being wound up.

Where the operator is a corporate body other than a registered company:

(a) any change in the operator's name or address; and

(b) any steps taken with a view to the dissolution of the operator.

4.3.5 Where the operator proposes to make a change in the nature or functioning, or an extension of the activities, which may have consequences for the environment and the change is not otherwise the subject of an application for approval under the Regulations or this permit:

(a) the Environment Agency shall be notified at least 14 days before making the change; and

(b) the notification shall contain a description of the proposed change in operation.

4.3.6 The Environment Agency shall be given at least 14 days' notice before implementation of any part of the site closure plan.

4.3.7 Where the operator has entered into a climate change agreement with the Government, the Environment Agency shall be notified within one month of:

(a) a decision by the Secretary of State not to re-certify the agreement;

(b) a decision by either the operator or the Secretary of State to terminate the agreement; and

(c) any subsequent decision by the Secretary of State to re-certify such an agreement.

4.4 Interpretation

4.4.1 In this permit the expressions listed in schedule 6 shall have the meaning given in that schedule.

4.4.2 In this permit references to reports and notifications mean written reports and notifications, except where reference is made to notification being made "immediately", in which case it may be provided by telephone.

Schedule 1 – Operations

Table S1.1 activities			
Activity reference	**Activity listed in Schedule 1 of the EP Regulations**	**Description of specified activity**	**Limits of specified activity**
AR1	Section 2.3 Part A(1)(a) Surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30m^3	CTF – Thin Film Sulphuric Acid Anodising (TFSAA) process line – for electrolytic oxidation of aluminium.	From receipt of raw materials to despatch of finished product and waste. Vat volume capacity 220.46m^3.
AR2	Section 2.3 Part A(1)(a) Surface treating metals and plastic materials using an electrolytic or chemical process where the aggregated volume of the treatment vats is more than 30m^3	CTF - PFD line – defect testing using fluorescent dye.	From receipt of raw materials to despatch of finished product and waste. Vat volume capacity 71.28m^3
AR3	Section 4.2 Part A(1)(f) Any activity which is likely to result in the release into the air of any acid-forming oxide of nitrogen	No.1 Shed Fabrications – Chemical milling using hydrogen fluoride, nitric acids, alkaline solutions and latex maskant to remove metal from aluminium and titanium components.	From receipt of raw materials to despatch of finished product and waste. Vat volume capacity 103.5m^3
AR4	Section 5.4 Part A(1)(a)(ii) Disposal of non-hazardous waste with a capacity exceeding 50 tonnes per day involving physico-chemical treatment	Effluent Treatment Plant	From receipt of effluent from TE1 (CTF) and TE2 (No. 1 Shed) to discharge from TE3; and off-site disposal of spent carbon filters.
Other activities under EP regulations			
AR5	Schedule 14 activities Solvent emission activities - an activity to which Chapter V of the Industrial Emissions Directive applies	Surface cleaning – Organic solvent degreasing using Perchloroethylene (PERC) to remove oil and grease prior to further processing of components.	Receipt of raw material or processed components to final surface treatment. Less than 1tonne/annum consumption of PERC.
Directly Associated Activity			
AR6	Associated activity	Raw material storage; water treatment; waste storage; mechanical preparation; spray painting; machining and silk screen printing.	From receipt of raw materials to despatch of finished product and waste.
AR7	Associated activity	1.436 MW gas engine CHP 2 x 0.746 MW standby gas boilers	From receipt of fuel to generate power and emission of combustion gases and associated heat exchanger to generate steam.

Table S1.2 Operating techniques		
Description	**Parts**	**Date Received**
Application for permit EPR/BV0414IV/A001	The response to questions B2.1 and B2.2 in the application form given in sections 2.1 and 2.2 of the application.	29/07/04
Variation application EPR/BV0414IV/V002	Sections 3 of Form EPC, part C3 provided in response to section 3a – technical standards, 3b – general requirements, and 3c – types and amount of raw materials.	17/03/17
Variation application EPR/BV0414IV/V003	• Installations Main report • Non-technical summary • Document confirming tank bund volume received on 13/09/2024 titled '*023-1932 Tank Bund Volumes - updated by Koch REV01*'. • Support information for form Part C6 • Form Part C2, C3, C6	Duly made 25/03/2024
Response to Schedule 5 notice dated 06/09/2024	• Schedule 5 response received on 09/09/2024 titled '*023-1932 BAE Systems Samlesbury Permit Schedule 5 Response REV00'*	09/09/2024

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
IC1	The Operator shall review all methods of emissions monitoring (to air and to sewer) both in-house and those employed by external contractors with the intent to achieve MCERTS certification, or an equivalent acceptable to the Agency with regard to sector guidance and M1 and M2.	18 months from the date of issue of the permit.
IC2	The Operator shall submit a report to the Agency detailing the results of an investigation into the process efficiency of the No.1 Shed Effluent Treatment Plant (ETP) and the potential for recycling rinse waters. Proposals for any future improvements to the performance of the ETP with plans and timescales for implementation of identified modifications shall be forwarded to the Agency.	18 months from the date of issue of the permit.
IC3	The Operator shall carry out an assessment of the impact of emissions to air of hydrogen fluoride and nitrogen dioxide. A report on the assessment shall be made to the Environment Agency. Emissions monitoring data obtained during the first year of operation shall be used to compare the actual emissions with those assumed in the impact assessment submitted with the Application. An assessment shall be made of the impact of each emission to the relevant environmental standard (ES). In the event that the assessment shows that an ES can be exceeded, the report shall include proposals for further investigative work.	Complete
IC4	The operator shall submit a written report to the Environment Agency for assessment and written approval. The report must contain: • An assessment of noise during normal operations in accordance with the procedures given in BS 4142:2014 (Rating industrial noise affecting mixed residential and industrial areas) and BS7445:2003 (Description and measurement of environmental noise) or other methodology as agreed with the Environment Agency. • The assessment shall include, but not be limited to: – A review of the noise sources from the facility. Where any noise sources are identified as exhibiting tonal	Within 6 months from the commissioning of the AE26 (A10) point.

Table S1.3 Improvement programme requirements		
Reference	**Requirement**	**Date**
	contributions, they shall be quantified by means of frequency analysis. – A review of noise levels from static plant. – Considerations of on-site vehicle movements. In the event that the report shows that noise could have a significant impact, the report shall include proposals with full details of any mitigation and appropriate measures to be put in place to achieve acceptable noise emissions from the site either at source or on the pathway to sensitive receptors. The operator must implement the proposals in the report in line with the timescales agreed with the Environment Agency.	
IC5	The operator shall submit a written report to the Environment Agency for assessment and written approval. The report must contain: • Emissions monitoring data obtained during the first year of operation • An assessment of the impact of emissions to air of the following pollutants; Oxides of Nitrogen, Hydrogen Fluoride, Total Chromium, Chromium VI, Sodium Hydroxide and Sulphur Dioxide subject to emission limit values • Comparison of the monitored emissions with those assumed in the impact assessment submitted with the Application • An assessment of the impact of each metal against the relevant EAL. • Proposals for further investigative work and a timescale for implementation where. the assessment shows that an environmental standard/environmental assessment level is exceeded, or where emissions are higher those in the application. The operator must implement the proposals in the report in line with the timescales agreed with the Environment Agency.	Within 15 months from the commissioning of the AE26 (A10) point.

Schedule 2 – Waste types, raw materials and fuels

Table S2.1 Raw materials and fuels	
Raw materials and fuel description	**Specification**
-	-

Schedule 3 – Emissions and monitoring

Table S3.1 Point source emissions to air – emission limits and monitoring requirements						
Emission point ref. & location (on site plan in Schedule 7)	**Source**	**Parameter**	**Limit (including unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
A1 (point AE6 – AE14)	Paint Spray Area (CTF)	Volatile Organic Compounds, total expressed as individual compounds	60mg/m^3	Minutes 1hour	Annually	BS CEN/TS 13649
		Particulates	50mg/m^3	Minutes 1hour	Annually	BS EN 13284-1 and MID
A5 (AE5)	PFD scrubber	No parameter set	-	-	-	-
A7 (AE19)	Chemical Etch Line scrubber	No parameter set	-	-	-	-
A8 (AE20)	Vapour degreaser	Perchloroethylene (PERC)	-	-	-	-
A9 (AE22 – AE25)	CHP and associated boilers	No parameter set	-	-	-	-
A10 (AE26)	TFSAA anodise scrubber	TBC upon completion of IC5	TBC upon completion of IC5	TBC upon completion of IC5	TBC upon completion of IC5	TBC upon completion of IC5

Table S3.2 Point source emissions to sewer, effluent treatment plant or other transfers off-site– emission limits and monitoring requirements						
Emission point ref. & location	**Source**	**Parameter**	**Limit (incl. Unit)**	**Reference period**	**Monitoring frequency**	**Monitoring standard or method**
S1 (TE3) [Effluent from the CTF (TE1) and the No.1 Shed Fabrications area (TE2)] Final site discharge point to sewer	ETP	Discharge flow rate	1300m^3/day	24-hour total	Continuous	MCERTs Flow Meter
		Mercury and its compounds (as Hg)	0.005mg/l	-	Annually	BS EN 12846
		Cadmium and its compound (as Cd)	0.01mg/l	Daily composite sample	Annually	BS 6068-2.29 ISO 8288
		Aluminium	5.0mg/l	Weekly composite sample	Annually	Analysis by UKAS laboratory (ICP AES)
		Chromium, total	1.0mg/l	Daily composite sample	Annually	BS EN 1233
		Copper	0.5mg/l	Daily composite sample	Annually	BS 6068-2.29 ISO 8288
		Lead	0.5mg/l	Daily composite sample	Annually	BS 6068-2.29 ISO 8288
		Nickel	0.5mg/l	Daily composite sample	Annually	BS 6068-2.29 ISO 8288
		Zinc	1.0mg/l	Daily composite sample	Annually	BS 6068-2.29 ISO 8288
		Total List I & II Metals above	7.5mg/l	Weekly composite sample	Annually	BS 6068-2.29 ISO 8288

Table S3.3 Annual limits		
Substance	**Medium**	**Limit (including unit)**
Mercury	Water	0.1kg in a year
Cadmium	Water	1.0kg in a year

Schedule 4 – Reporting

Parameters, for which reports shall be made, in accordance with conditions of this permit, are listed below.

Table S4.1 Reporting of monitoring data			
Parameter	**Emission or monitoring point/reference**	**Reporting period**	**Period begins**
Point source emissions to air Parameters as required by condition 3.5.1	A1	Annually	1 January
Point source emissions to sewer Parameters as required by condition 3.5.1	S1	Annually	1 January
Energy Usage (MWh)	Permitted Installation	Annually	1 January
Waste disposal and/or recovery (tonnes)	Permitted Installation	Annually	1 January
Water usage (m^3)	Permitted Installation	Annually	1 January

Table S4.2: Annual production/treatment	
Parameter	**Units**
Perchloroethylene usage	tonnes

Table S4.3 Performance parameters		
Parameter	**Frequency of assessment**	**Units**
Water usage	Annually	m^3
Hazardous Waste produced	Annually	tonnes
Non-hazardous waste produced	Annually	tonnes

Table S4.4 Reporting forms		
Parameter	**Reporting form**	**Form version number and date**
Point source emissions to air	Emissions to Air Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Point source emissions to water (other than sewer)	Emissions to Water Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Point source emissions to sewer	Emissions to Sewer Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Water usage	Water Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Energy usage	Energy Usage Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021
Other performance parameters	Other Performance Parameters Reporting Form, or other form as agreed in writing by the Environment Agency	Version 1, 08/03/2021

Schedule 5 – Notification

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

If any information is considered commercially confidential, it should be separated from non-confidential information, supplied on a separate sheet and accompanied by an application for commercial confidentiality under the provisions of the EP Regulations.

Part A

Permit Number	
Name of operator	
Location of Facility	
Time and date of the detection	

(a) Notification requirements for any malfunction, breakdown or failure of equipment or techniques, accident, or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution	
To be notified within 24 hours of detection	
Date and time of the event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances(s) potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident.	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Emission point reference/ source	
Parameter(s)	
Limit	
Measured value and uncertainty	
Date and time of monitoring	

(b) Notification requirements for the breach of a limit	
To be notified within 24 hours of detection unless otherwise specified below	
Measures taken, or intended to be taken, to stop the emission	

Time periods for notification following detection of a breach of a limit	
Parameter	**Notification period**

(c) Notification requirements for the breach of permit conditions not related to limits	
To be notified within 24 hours of detection	
Condition breached	
Date, time and duration of breach	
Details of the permit breach i.e. what happened including impacts observed.	
Measures taken, or intended to be taken, to restore permit compliance.	

(d) Notification requirements for the detection of any significant adverse environmental effect	
To be notified within 24 hours of detection	
Description of where the effect on the environment was detected	
Substances(s) detected	
Concentrations of substances detected	
Date of monitoring/sampling	

Part B – to be submitted as soon as practicable

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission	

The dates of any unauthorised emissions from the facility in the preceding 24 months.	

Name*	
Post	
Signature	
Date	

* authorised to sign on behalf of the operator

Schedule 6 – Interpretation

“accident” means an accident that may result in pollution.

“application” means the application for this permit, together with any additional information supplied by the operator as part of the application and any response to a notice served under Schedule 5 to the EP Regulations.

“authorised officer” means any person authorised by the Environment Agency under section 108(1) of The Environment Act 1995 to exercise, in accordance with the terms of any such authorisation, any power specified in section 108(4) of that Act.

“disposal” means any of the operations provided for in Annex I to the Waste Framework Directive.

“emissions to land” includes emissions to groundwater.

“EP Regulations” means The Environmental Permitting (England and Wales) Regulations SI 2016 No.1154 and words and expressions used in this permit which are also used in the Regulations have the same meanings as in those Regulations.

“emissions of substances not controlled by emission limits” means emissions of substances to air, water or land from the activities, either from the emission points specified in schedule 3 or from other localised or diffuse sources, which are not controlled by an emission or background concentration limit.

“groundwater” means all water, which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil.

“Hazardous property” has the meaning in Annex lll of the Waste Framework Directive.

“Hazardous waste” has the meaning given in the Hazardous Waste (England and Wales) Regulations 2005.

“Industrial Emissions Directive” means DIRECTIVE 2010/75/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 24 November 2010 on industrial emissions, as read in accordance with Schedule 1A to the Environmental Permitting (England and Wales) Regulations 2016.

“MCERTS” means the Environment Agency’s Monitoring Certification Scheme.

“quarter” means a calendar year quarter commencing on 1 January, 1 April, 1 July or 1 October.

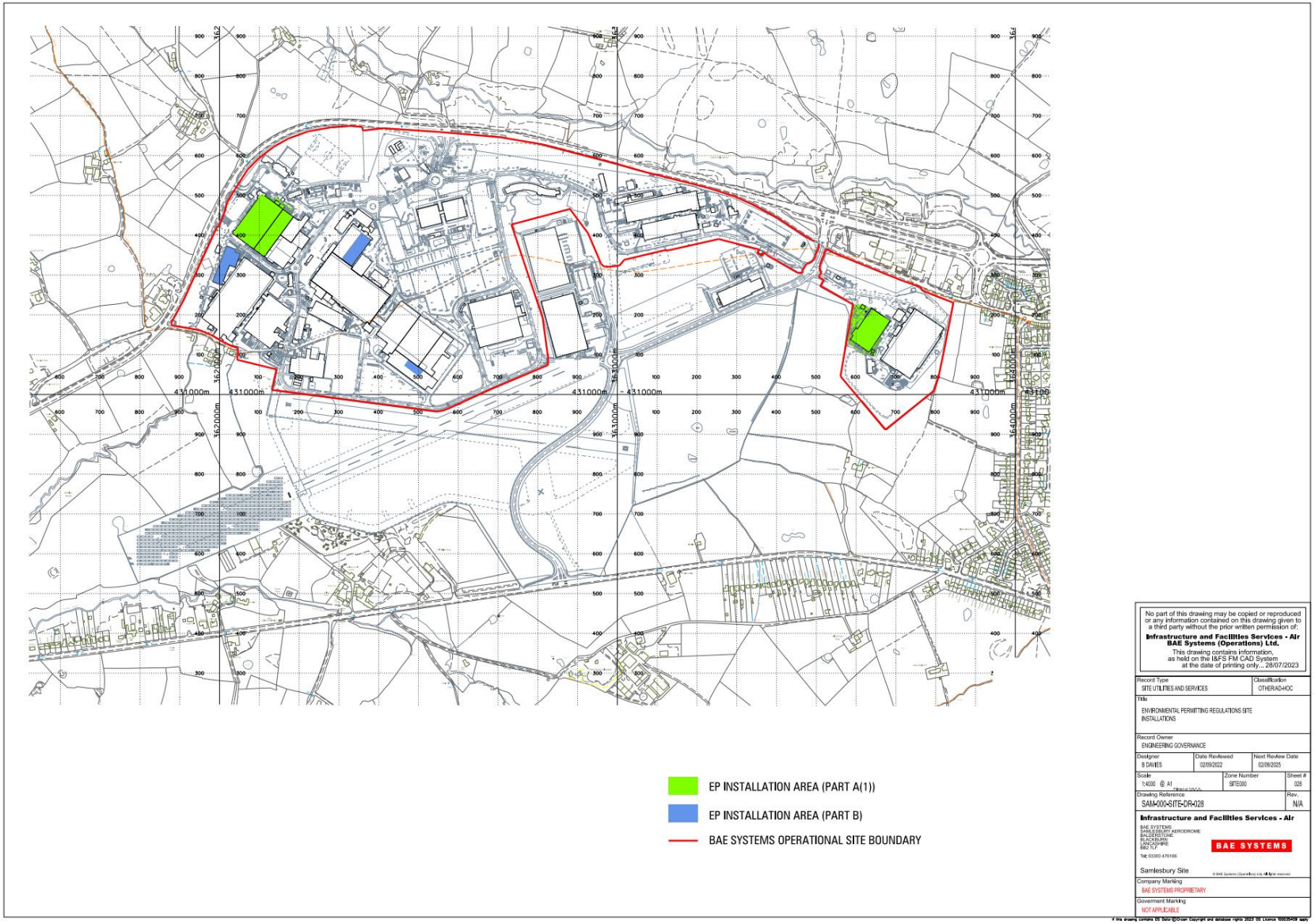
Where a minimum limit is set for any emission parameter, for example pH, reference to exceeding the limit shall mean that the parameter shall not be less than that limit.

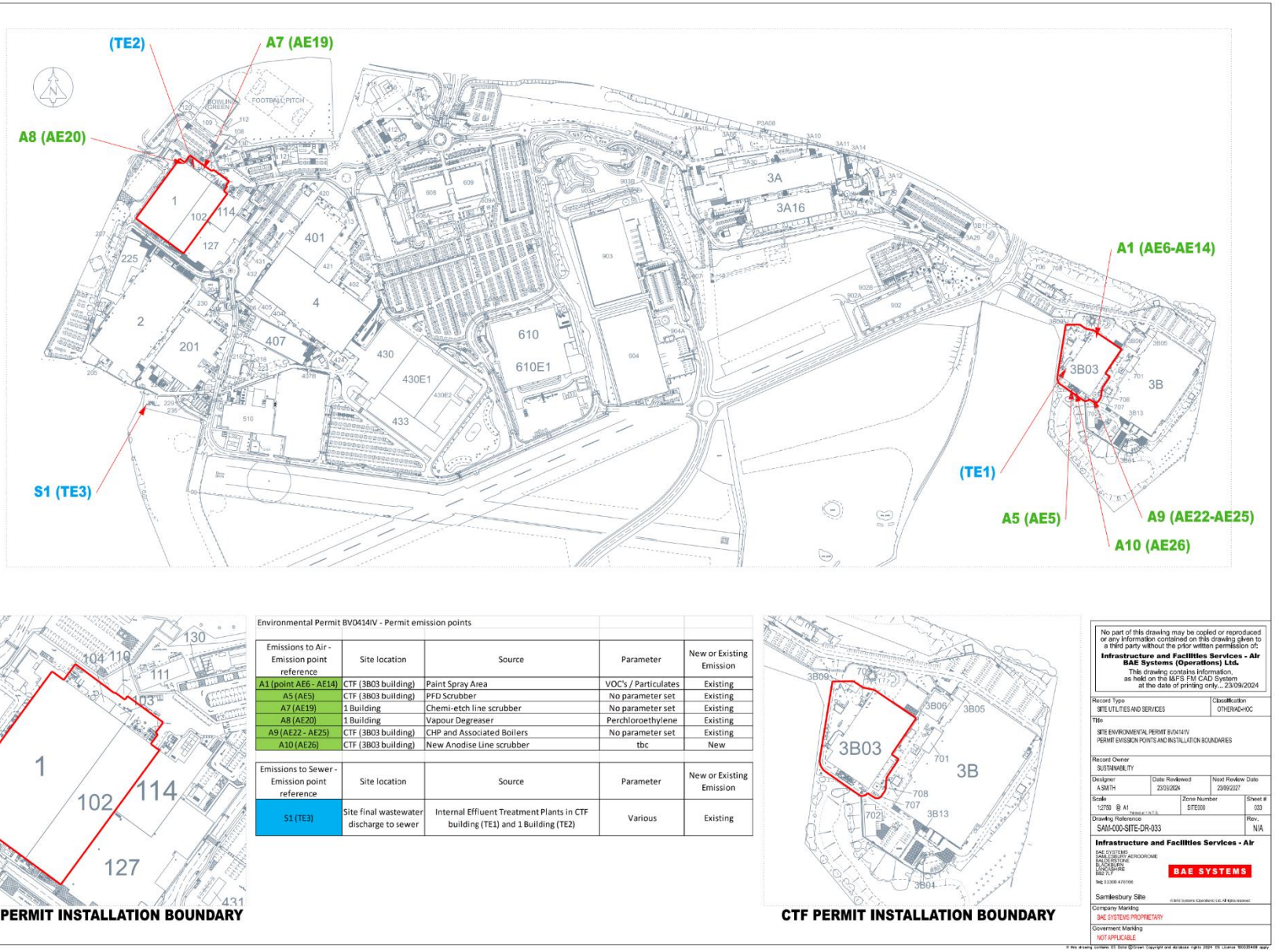
Unless otherwise stated, any references in this permit to concentrations of substances in emissions into air means:

- in relation to emissions from combustion processes, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 3% dry for liquid and gaseous fuels other than gas engines or gas turbines, 6% dry for solid fuels; and/or
- in relation to emissions from gas engines or gas turbines, the concentration in dry air at a temperature of 273K, at a pressure of 101.3 kPa and with an oxygen content of 15% dry for liquid and gaseous fuels ; and/or
- in relation to emissions from non-combustion sources, the concentration at a temperature of 273K and at a pressure of 101.3 kPa, with no correction for water vapour content “year” means calendar year ending 31 December.

“year” means calendar year ending 31 December.

Schedule 7 – Site plan





Environmental Permit BV0414IV - Permit emission points

Emissions to Air - Emission point reference	Site location	Source	Parameter	New or Existing Emission
A1 (point AE6 - AE14)	CTF (3B03 building)	Paint Spray Area	VOC's / Particulates	Existing
A5 (AE5)	CTF (3B03 building)	PFD Scrubber	No parameter set	Existing
A7 (AE19)	1 Building	Chemi-etch line scrubber	No parameter set	Existing
A8 (AE20)	1 Building	Vapour Degreaser	Perchloroethylene	Existing
A9 (AE22 - AE25)	CTF (3B03 building)	CHP and Associated Boilers	No parameter set	Existing
A10 (AE26)	CTF (3B03 building)	New Anodise Line scrubber	tbc	New

Emissions to Sewer - Emission point reference	Site location	Source	Parameter	New or Existing Emission
S1 (TE3)	Site final wastewater discharge to sewer	Internal Effluent Treatment Plants in CTF building (TE1) and 1 Building (TE2)	Various	Existing

Record Type: SITE UTILITIES AND SERVICES	Classification: OTHER/AD+HOC
Title: SITE ENVIRONMENTAL PERMIT BV0414IV PERMIT EMISSION POINTS AND INSTALLATION BOUNDARIES	
Record Owner: SUSTAINABILITY	
Designer: A.SMITH	Date Reviewed: 23/09/2024 — Next Review Date: 23/09/2027
Scale: 1:2750 @ A1 (Printed in M.T.S.)	Zone Number: SITE000 — Sheet #: 033
Drawing Reference: SAM-000-SITE-DR-033	Rev.: N/A

Infrastructure and Facilities Services - Air

BAE SYSTEMS
DARK LANE (OFF AERODROME ROAD)
BLACKBURN
LANCASHIRE
BB2 7LP
Tel: 03300 471166

BAE SYSTEMS

Samlesbury Site

Company Marking: BAE SYSTEMS PROPRIETARY
Goverment Marking: NOT APPLICABLE

END OF PERMIT

Emissions to Air Reporting Form

Permit number: EPR/BV0414IV **Operator:** BAE Systems (Operations) Limited

Facility name: Samlesbury Aerodrome **Emissions to Air Reporting Form: version 1, 08/03/2021**

Reporting of emissions to air for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
[e.g. A1]	*[e.g. Oxides of nitrogen (NO and NO_2 expressed as NO_2)]*	*[e.g. 200 mg/m^3]*	*[e.g. daily average]*	*[e.g. BS EN 14181]*	*[State result]*	*[State relevant dates and time periods]*	*[State uncertainty if not 95% confidence interval]*

Signed: *[Name]* **Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

[1] Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
[2] Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
[3] For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
[4] Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Emissions to Water Reporting Form

Permit number: EPR/BV0414IV

Operator: BAE Systems (Operations) Limited

Facility name: Samlesbury Aerodrome

Emissions to Water Reporting Form: version 1, 08/03/2021

Reporting of emissions to water (other than to sewer) for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
[e.g. W1]	*[e.g. Total suspended solids]*	*[e.g. 30 mg/l]*	*[e.g. For 95% of all measured values of periodic samples taken over one month]*	*[e.g. BS EN 872:2005]*	*[State result]*	*[State relevant dates and time periods]*	*[State uncertainty if not 95% confidence interval]*

Signed: *[Name]* **Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

[1] Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
[2] Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
[3] For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
[4] Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Emissions to Sewer Reporting Form

Permit number: EPR/BV0414IV

Operator: BAE Systems (Operations) Limited

Facility name: Samlesbury Aerodrome

Emissions to Sewer Reporting Form: version 1, 08/03/2021

Reporting of emissions to sewer for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]
[e.g. S1]	*[e.g. Total suspended solids]*	*[e.g. 30 mg/l]*	*[e.g. For 95% of all measured values of periodic samples taken over one month]*	*[e.g. BS EN 872:2005]*	*[State result]*	*[State relevant dates and time periods]*	*[State uncertainty if not 95% confidence interval]*

Emission point	Substance / parameter	Emission Limit Value	Reference period	Test method [1]	Result [2]	Sample dates and times [3]	Uncertainty [4]

Signed: *[Name]* **Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your monitoring results.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Complete columns 1 to 5 using the information from schedule 3 of your permit. Complete columns 6 to 8 with your monitoring data. Add additional rows as necessary.

[1] Where an internationally recognised standard test method is used, give the reference number. Where another method that has been formally agreed with the Environment Agency, give the appropriate identifier. In other cases state the principal technique, for example gas chromatography.
[2] Give the result as the maximum value (or the minimum value in the case of a limit that is expressed as a minimum) obtained during the reporting period, expressed in the same terms as the emission limit value. Where the emission limit value is expressed as a range, give the result as the 'minimum to maximum' of the measured values.
[3] For non-continuous measurements give the date and time of the sample that produced the result. For continuous measurements give the percentage of the process operating time covered by the result.
[4] Complete if the uncertainty associated with the result is not a 95% confidence interval. Leave blank for 95% confidence intervals.

Water Usage Reporting Form

Permit number: EPR/BV0414IV

Operator: BAE Systems (Operations) Limited

Facility name: Samlesbury Aerodrome

Water Usage Reporting Form: version 1, 08/03/2021

Reporting of water usage for the year *[YYYY]*

Water source	Water usage (m3)	Specific water usage (m3/unit) [2]
Mains water	*[insert annual usage in m^3 where mains water is used]*	*[insert annual usage in m^3/unit where mains water is used]*
Site borehole	*[insert annual usage in m^3 where water is used from a site borehole]*	*[insert annual usage in m^3/unit where water is used from a site borehole]*
River abstraction	*[insert annual usage in m^3 where abstracted river water is used]*	*[insert annual usage in m^3/unit where abstracted river water is used]*
Other – *[specify other water source where applicablel. Add extra rows where needed]*	*[insert annual usage in m^3 where applicable]*	*[insert annual usage in m^3/unit where applicable]*
Total water usage	*[insert total annual water usage in m^3]*	*[insert total annual water usage in m^3/unit]*

Operator's comments

Signed: *[Name]* **Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual water usage.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

Energy Usage Reporting Form

Permit number: EPR/BV0414IV

Operator: BAE Systems (Operations) Limited

Facility name: Samlesbury Aerodrome

Energy Usage Reporting Form: version 1, 08/03/2021

Reporting of energy usage for the year *[YYYY]*

Energy source	Energy consumption / production (MWh)	Specific energy consumption (MWh/unit) [2]
Electricity imported as delivered - source [specify source, e.g. supplied from the national grid]	*[insert annual consumption in MWh where electricity is imported]*	*[insert annual consumption in MWh/unit where electricity is imported]*
Electricity imported as primary energy 1 – conversion factor of [specify conversion factor used to convert electricity delivered to primary energy]	*[insert annual consumption in MWh where electricity is imported]*	*[insert annual consumption in MWh/unit where electricity is imported]*
Natural gas	*[insert annual consumption in MWh where natural gas is used]*	*[insert annual consumption in MWh/unit where natural gas is used]*
Gas oil – conversion factor of [specify conversion factor used to convert tonnes to MWh]	*[insert annual consumption in MWh where gas oil is used]*	*[insert annual consumption in MWh/unit where gas oil is used]*
Imported heat	*[insert annual consumption in MWh where heat is imported]*	*[insert annual consumption in MWh/unit where heat is imported]*
Other – *[specify other energy source and conversion factors where applicable, e.g. renewable fuel. Add extra rows where needed]*	*[insert annual consumption in MWh where applicable]*	*[insert annual consumption in MWh/unit where applicable]*
Electricity exported	*[insert annual production in MWh where electricity is exported]*	Not applicable
Heat exported	*[insert annual production in MWh where heat is exported]*	Not applicable

Operator's comments

Signed: *[Name]* **Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report your annual energy usage.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. Add additional rows as necessary.

[1] Multiply delivered electricity by 2.4 to convert to primary energy where the electricity is supplied from the national grid. If the electricity is supplied from another source, specify the conversion factor used. Add additional rows as needed if electricity is imported from multiple sources.

[2] Divide energy consumption by an appropriate unit of raw material processed or product output.

Other Performance Parameters Reporting Form

Permit number: EPR/BV0414IV

Operator: BAE Systems (Operations) Limited

Facility name: Samlesbury Aerodrome

Other Performance Parameters Reporting Form: version 1, 08/03/2021

Reporting of other performance parameters for the period from *[DD/MM/YY]* to *[DD/MM/YY]*

Parameter	Units
[e.g. Total raw material usage]	*[e.g. tonnes per production unit]*

Operator's comments

Signed: *[Name]* **Date:** *[DD/MM/YY]*

(Authorised to sign as representative of the operator)

Guidance for use: Use this form to report the performance parameters (other than water and energy) required by your permit.
Example text is shown in bracketed grey italics. Replace the example text by entering your own site specific information. The parameters to report and units to be used can be found in the 'Performance parameters' table in schedule 4 of your permit. Add additional rows as necessary.