

Torfaen County Borough Council



Permit with Introductory note

The Pollution Prevention and Control Act 1999
The Environmental Permitting (England & Wales)
Regulations 2016

Part B Permit for: **Blaenavon Forgings Ltd.**
 Forgeside
 Blaenavon
 Pontypool
 Torfaen
 NP4 9XG

Permit Reference TCBC/EP B25

Address for Communication:

Planning and Public Protection
Ty Blaen Torfaen
Panteg Way
New Inn
Pontypool
Torfaen
NP4 0LS

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Introductory note

This introductory note does not form part of the Permit

This Permit authorises the operation of an activity listed in Part 2 to Schedule 1 of the Environmental Permitting (England and Wales) Regulations 2016 (S.I. 2016 / No.1154) [the EP Regulations] to the extent specified in the Permit and shall be treated as having been granted under Regulation 13(1) of those Regulations. It must not be taken to replace any responsibilities under The Health and Safety at Work (Etc.) Act 1974 and associated legislation.

Brief description of the installation

This is a chemical etching process that involves the submersion of metal components, mainly nickel alloys and titanium, into diluted acid solutions to remove metal in a precise manner and/or prepare the surface for non-destructive testing and examination of the structure of the metal. Components are forged and rolled rings, and forged blades for use in gas turbine engines. The etching occurs on 2 process lines, the former Combination, Nickel Strip, Barrel Etch, and Kolene lines have now been subsumed into a new Combination, Closed Die Forge line. The process locations are shown in Figure 1 in Schedule 1 to this Permit.

- **Closed Die Forge – Combination Line**
- **DMS (Doncasters Manufacturing Services) Etch**

Pollution abatement is provided via 2 acid gas neutralisation wet scrubber systems. A liquid caustic solution is added to the scrubber units in order to maintain the correct pH conditions. De-misters are incorporated to reduce the potential for droplet emission. The Closed Die Forge Process Line is within the Closed Die Forge plant (former large blades plant) and discharges to atmosphere via a scrubber/de-mister through a 13 metre stack, identified as Stack 1 on figure 2 in Schedule 1 to this permit. The DMS etch process line, discharges to atmosphere via scrubber/de-mister 2 and then a 13 metre stack, identified as Stack 2 on figure 3 in Schedule 1 to this permit.

Talking to us

To speak to an officer concerned with this permit please telephone Peter Oates on 01633 647290 or email peter.oates@torfaen.gov.uk.

In the event of an emergency occurring outside of normal office hours you should contact 01495 762200 and ask for the Emergency Environmental Health Officer.

Confidentiality

The Permit requires the Operator to provide information to the Council. The Council will place the information onto the public registers in accordance with the requirements of the EP Regulations. If the Operator considers that any information provided is commercially confidential, it may apply to the Council to have such information withheld from the register as provided in the EP Regulations. To enable the Council to determine whether the information is commercially confidential, the Operator should clearly identify the information in question and should specify clear and precise reasons.

Variations of the Permit

This Permit may be varied in the future in accordance with Regulation 20 of the EP Regulations. The Status Log within the Introductory Note to any such variation will include summary details of this Permit, variations issued up to that point in time and state whether a consolidated version of the Permit has been issued.

Surrender of the Permit

Before this Permit can be wholly or partially surrendered, an application to surrender the Permit has to be made in accordance with Regulation 24 of the EP Regulations.

Transfer of the Permit

Before the Permit can be wholly or partially transferred to another person, a joint application to transfer the Permit has to be made by both the existing and proposed holders, in accordance with Regulation 21 of the EP Regulations. A transfer will be allowed unless the Council considers that the proposed holder will not be the person who will have control over the operation of the installation or will not ensure compliance with the conditions of the transferred Permit.

Any change in the activities covered by this permit must be notified to the Council for approval prior to implementation.

Offences

Regulation 38 of the EP Regulations defines the offences that may arise as a result of non-compliance with the regulations or conditions contained within this permit. Regulation 39 details the penalties and enforcement undertakings for offences. You are advised to be familiar with this regulation.

Enforcement

If the conditions attached to this Permit are not adhered to, then an enforcement notice may be served upon the operator in accordance with Regulation 36 of the EP Regulations. This notice will specify the contraventions and the steps to be taken to remedy the situation. It is an offence not to comply with such an Enforcement Notice (see above).

Revocation

The Permit may be revoked at any time by the enforcing Local Authority in accordance with Regulations 22 & 23 of the EP Regulations. This will particularly be considered if fees are not paid or enforcement notices are not complied with, in accordance with Regulation 65(5).

Suspension

The Regulator has a duty to serve a suspension notice in accordance with Regulation 37 of the EP Regulations if it is considered that there is a risk of serious pollution to the environment, whether or not there has been a breach of the Permit.

Appeals

Any person who has been refused a Permit, is aggrieved by the conditions attached to the Permit, has been refused a variation of a Permit on application or has had a Permit revoked may appeal against the decision of the Regulator to the Welsh Ministers.

Powers of entry

Any duly authorised officer of the Regulator may enter premises to inspect activity at all reasonable times. On entry of the premises the officer also has powers to take any equipment or materials with him for which the power of entry is being exercised, to make such examination and investigation as may be necessary, to take such photographs, measurements or samples and seek any other assistance necessary to assist him in his duties.

Status Log

Detail	Date	Comment
Application for Registration with HMIP	03/09/1991	
Registration with HMIP	08/05/1992	
EPA 1990 Authorisation Issued	03/06/1994	
Transfer of authorisation to Permit.	30/11/2007	
Major Permit Review Variation of Permit and transfer of PPC Permit to Environmental Permit	01/10/2011	
Variation of Permit to exclude all reference to the Blue Etch Line	30/08/2016	
Variation of Permit to remove reference the A2, A2a, A3 & A4 Etch lines and associated abatement. replace all with a new Closed Die Forge - Combination Etch Line and associated abatement	29/01/2018	
Variation for change of company name	03/10/2019	No variation application necessary

Permit**The Environmental Permitting (England & Wales) Regulations 2016****Permit**

Permit number: **TCBC/EP B25**

Torfaen County Borough Council (“the Regulator”) in exercise of its powers under Regulation 13 of the Environmental Permitting (England & Wales) Regulations 2016 (S.I. 2010 No. 1154), hereby permits

Blaenavon Forgings Ltd (“the operator”)

Of/whose Registered Office is

Blaenavon Forgings Ltd
Forgeside,
Blaenavon,
Pontypool,
Wales,
NP4 9XG

to operate an installation at

Blaenavon Forgings Ltd
Forgeside,
Blaenavon,
Pontypool,
Wales,
NP4 9XG

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

Signed

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Peter Oates: Senior Environmental Health Officer

Authorised to sign on behalf of Torfaen County Borough Council

Date

3 October 2019

The Permitted Installation

The Operator is authorised to carry out the activities and/or the associated activities specified in Table 1

Table 1

Activity under Schedule 1 of the Regulations	Schedule 1 Activity Reference	Description of Specified Activity
Chapter 2 – Production and Processing of Metals	Section 2.3 – Surface Treatment of Metals and Plastic Materials	Part B (a) – The Chemical Etching of Metals
Directly Associated Activity	N/A	Part B (a) – The Operation of Abatement Equipment

Permit Conditions

Emission Limits and Controls

1. All emissions to air other than condensed water vapour shall be colourless and free from persistent mist and fume. Abnormal emissions shall be recorded in the site logbook and made available for inspection by Torfaen County Borough Council.
2. All emissions to air shall be free from offensive odour outside the process boundary as perceived by an Authorised Officer of Torfaen County Borough Council
3. All pollutant concentrations shall be expressed at reference conditions 273K, 101.3kPa. The oxygen and water references shall be that which corresponds to the normal operating conditions of the process. Evidence of this must be provided in the annual emissions report as required under conditions 9 and 15 of this permit.
4. The following *Table 2* shows the specified emission limits for the post abatement extraction equipment associated with the processes and the standard and frequency of the monitoring required. (refer to emission points in Schedule 1 to this Permit). No result obtained from monitoring exercises shall exceed these emission limits.

Table 2

Row Number	Pollutant	Concentration Limit Value	Monitoring Type & Frequency
1	Oxides of nitrogen and Nitric acid vapour (expressed as nitrogen dioxide equivalent)	200mg/m³ (averaged over an hour)	Annual Either; Appendix 2 of PG Note 4/1 (04) or any updated PG Note; or, USEPA M7d
2	Fluoride (expressed as hydrogen fluoride)	5 mg/m³ (averaged over an hour)	Annual Manual Extractive BS ISO 15713
3	Particulate Matter	50 mg/m³ (averaged over 30 minutes)	Annual Manual Extractive BS EN 13284-1

Test methods are continually being reviewed and updated and Operators are advised to check the Government website for information on the latest approved test methods.

<https://www.gov.uk/government/publications/m2-monitoring-of-stack-emissions-to-air>

Monitoring, Investigating and recording

5. Upon commissioning, proving tests shall be made on the scrubbers to determine the lowest concentrations of alkaline scrubbing agent and the maximum scrubber liquor density which are consistent with meeting the emission limits specified in Table 2 of this permit.
6. The operator shall monitor emissions and make tests and inspections of the process as necessary. Testing shall be undertaken under conditions of typical maximum operational loading.
7. The operator shall keep records of inspections, tests and monitoring, including all non-continuous monitoring, inspections and visual and olfactory assessments. The records shall be:
 - kept on site; and
 - kept by the operator for at least two years; and
 - made available for authorised officers of Torfaen County Borough Council to examine

Information Required by Torfaen County Borough Council

7. The operator shall provide a list of key abatement plant relevant to the surface treatment process and shall have a written procedure for dealing with its failure, in order to minimise any adverse effects.
8. Torfaen County Borough Council shall be advised at least 7 days in advance of any periodic monitoring exercise to determine compliance with emission limit values set out in condition 4 above. In particular, the Council shall be informed about the provisional time and date of monitoring, the pollutants to be tested and the methods to be used.
9. The results of non-continuous emission testing shall be forwarded to Torfaen County Borough Council within 8 weeks of the completion of sampling.
10. Adverse results from **any** monitoring activity shall be investigated by the operator as soon as the monitoring data has been received/obtained. The operator shall:
 - identify the cause and take corrective action; and
 - record as much detail as possible regarding the cause and extent of the problem, and the action taken by the operator to rectify the situation; and
 - re-test to demonstrate compliance as soon as possible: and
 - notify Torfaen County Borough Council

Abnormal Events

11. In the case of abnormal emissions, malfunction or breakdown leading to abnormal emissions the operator shall:
 - Investigate and undertake corrective action **immediately; and**
 - Suspend or adjust the process or activity to minimise those emissions; and
 - Promptly record the events and the action taken
12. Where overnight working is being carried on, the operator shall ensure that there is a fully trained staff member on duty to take appropriate action in the event of a malfunction or breakdown leading to abnormal emissions.
13. Torfaen County Borough Council shall be informed without delay:
 - If there is an emission that is likely to have an effect on the local community; or
 - In the event of the failure of key abatement plant i.e. wet scrubber units, ductwork and stacks.

Calibration and Compliance Monitoring

14. No results shall exceed the emission concentration limits specified in *Table 2* above.
15. Non-continuous monitoring of the pollutants detailed in *Table 2* above shall be carried out at least once a year.
16. The introduction of dilution air to achieve the emission concentration limits shall not be permitted.
17. Dilution air shall only be permissible to alleviate a visible emission where the emission concentration limits in *Table 2* above are already being met.
18. Where extraction from other processes or sub-processes is exhausted into the same ductwork as the nitric acid using processes, either the sample should be taken before the common ductwork or allowance shall be made for the volume of dilution air. Evidence that this procedure has been adhered to must be provided in the annual emissions report required under condition 9 of this permit.

Varying Monitoring Frequency

19. This permit will allow for the frequency of emissions monitoring to be reduced providing consistent compliance with the emissions limits detailed in *Table 2* of this permit can be demonstrated using the results from at least:

- Three or more monitoring exercises carried out within two years; or
 - Two or more monitoring exercises in one year supported by continuous monitoring
20. Any significant process changes which might have affected the monitored emissions shall be taken into account

Sampling Provisions

21. The operator shall ensure that adequate and safe facilities for sampling are provided on stacks or ducts
22. Sampling points on new plant shall be designed to comply with the British or equivalent standards.
23. The pH concentration, flow rate and temperature shall be monitored constantly to demonstrate that scrubber units are working within stipulated parameters. A data logger shall be used to record the readings and once per shift the results shall be recorded in the log book. Where hydrogen peroxide is to be used as the basis of scrubbing medium instead of alkali, similar monitoring shall take place for hydrogen peroxide concentrations.
24. The pH concentration shall be maintained between pH6 to pH8 and shall be adjusted as necessary using caustic soda.
25. A visual inspection of all scrubber equipment shall be made at least once a week to ensure correct functioning of the equipment including adequate liquor circulation. The results of the inspection shall be recorded in the log book. Scrubber liquor flow shall be continuously monitored, triggering an alarm or stand-by pump in the event of pump failure. Appropriate corrective action must be taken immediately where problems are identified.
26. Emissions of oxides of nitrogen or hydrogen fluoride from process vessels shall be adequately contained and vented. A lip extraction system ducted to the scrubber units shall be used and maintained to control emissions so as to meet the requirements of Conditions 1, 2 and 4 above.

Fugitive Emissions

27. All process buildings shall be cleaned regularly to minimise the risk of fugitive emissions and made as dust tight as is necessary to prevent visible emissions.
28. All potentially dusty materials shall be stored in covered containers or under cover
29. Where local exhaust ventilation is used, emissions shall be ducted to suitable arrestment equipment to meet the requirements of condition 4 of this permit

Dispersion and Dilution

30. The minimum stack or vent height shall be 3m above the roof ridge height of any building within a distance of 5 times the uncorrected chimney height and in no circumstances shall be less than 8m above ground level.

Stacks, Vents and Process Exhausts

31. Chimney flues, process vents and all ductwork shall be leak proof. Chimney flues and ductwork leading to the chimney shall be adequately designed so as to minimise the cooling of waste gases and prevent liquid condensation on internal surfaces by keeping the temperature of the exhaust gases above the dew point.
32. Where a linear velocity of 9m/sec is exceeded in the ductwork of existing wet arrestment plant, it shall be reduced to the extent that is practicable to ensure that droplet fallout does not occur
33. Stacks and ductwork shall be operated in a manner to prevent accumulation of materials as part of the routine maintenance programme. The stacks and ductwork associated with the scrubber units shall be subject to an annual preventative maintenance programme.
34. Exhaust gases discharged through all stacks associated with the surface treatment processes shall achieve a minimum discharge velocity of 6m/sec in order to prevent the discharged plume being affected by aerodynamic down wash.
35. Stacks or vents shall not be fitted with any restriction at the final opening such as a plate, cap or cowl, with the exception of an accelerator cone which may be necessary to increase the exit velocity of the emissions.

Management Techniques

36. Spares and consumables, in particular those subject to continual wear, should be held on site, or should be available within 48 hours from guaranteed suppliers, so that plant breakdowns can be rectified rapidly. To facilitate this, an audited list of essential items shall be held on site and maintained by the operator.

Training

37. Staff at all levels shall receive formal training and instruction in their duties relating to control of the installation and emissions to air. Particular emphasis shall be given to training for start-up, shut down and abnormal conditions according to the manufacturer's instructions to avoid unacceptable emissions.
38. Training of all staff with responsibility for operating the surface treatment of metals process shall include:

- Awareness of their responsibilities under this permit; in particular how to deal with conditions likely to give rise to exceedences of the emission limits in *Table 2*.
 - Minimising emissions on start up and shut down
 - Action to minimise emissions during abnormal conditions
39. The operator shall maintain a statement of training requirements for each operational post and keep a record of the training received by each person whose actions may have an impact on the environment. These documents shall be made available to authorised officers of Torfaen County Borough Council on request.

Maintenance

40. Effective preventative maintenance shall be employed on all aspects of the process including all plant, buildings and the equipment concerned with the control of emissions to air. In particular:
- A written maintenance programme shall be provided to Torfaen County Borough Council with respect to pollution control equipment; and
 - A record of such maintenance shall be made available for inspection by Torfaen County Borough Council

_____END OF PERMIT CONDITIONS_____

References

1. The Secretary of States Guidance PG 4/1 (13). 'Surface Treatment of Metals' Department for Environment Food and Rural Affairs. July 2013. Copies can be downloaded at:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/582703/installations-for-the-surface-treatment-of-metals-process-guidance-note-4-01-13.pdf
2. The Environmental Permitting (England and Wales) Regulations 2016. A short guide to which can be downloaded here:
https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211852/pb13897-ep-core-guidance-130220.pdf
3. The Environmental Permitting (England and Wales) Regulations 2016, SI No. 1154.
<http://www.legislation.gov.uk/uksi/2016/1154/contents/made>

Please note that the Government is constantly updating legislation and the links to it. For the very latest information visit <http://www.gov.uk>

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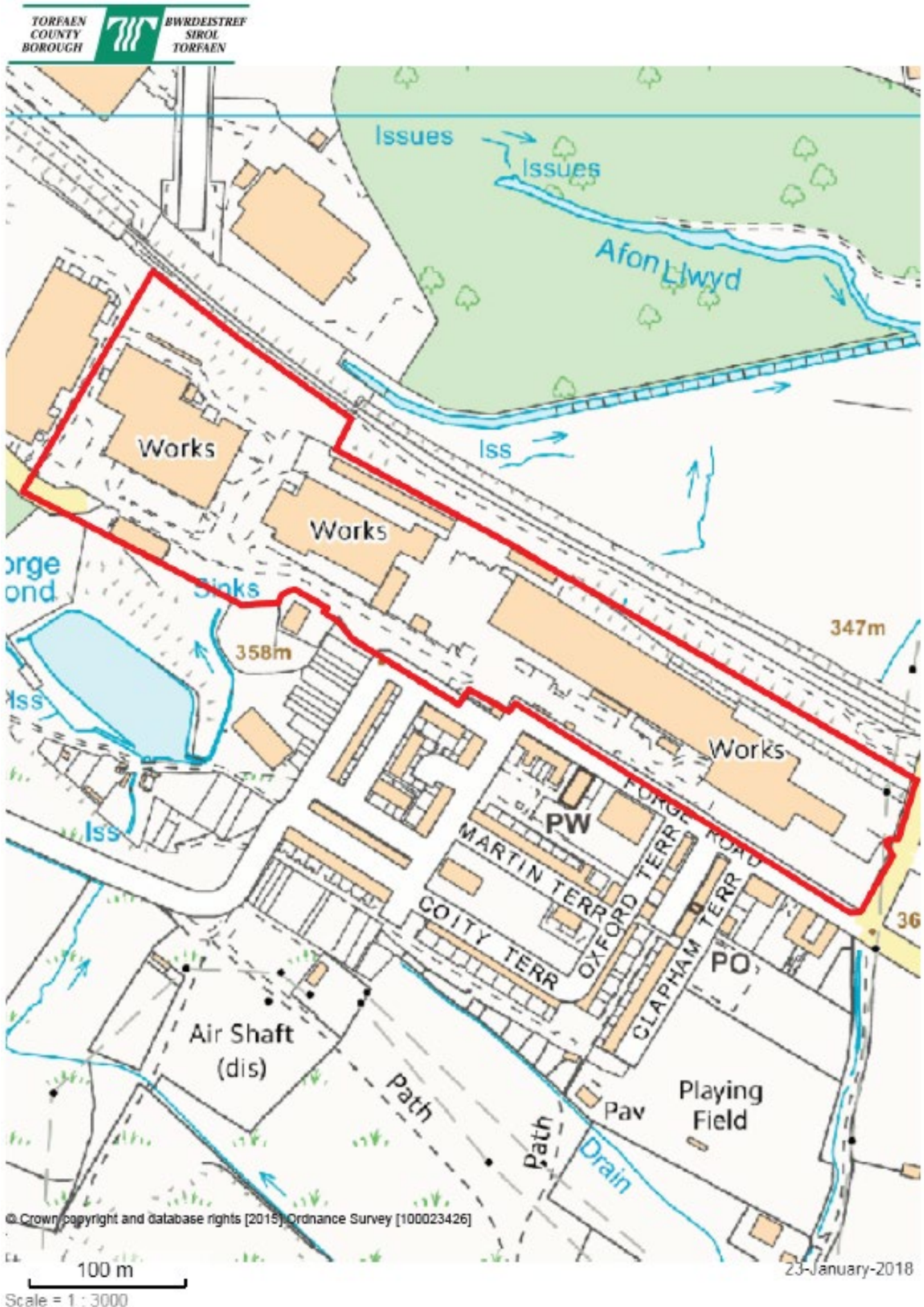
Email peter.oates@torfaen.gov.uk

Please quote **TCBC EP B25** in all correspondence

APPENDIX 1 - Definitions

“Regulator”	Torfaen County Borough Council, Planning and Public protection Department
“Operator”	Blaenavon Forgings Ltd
“Installation”	A stationary technical unit where one or more of the activities listed in Part 2 of Schedule 1 to the Environmental Permitting (England & Wales) Regulations 2016 are carried out, and, any other location on the same site where any other directly associated and technically connected activities are carried out which could have an effect on pollution.
“Activity”	An activity listed in Part 2 of Schedule 1 to the Environmental Permitting (England & Wales) Regulations 2016 and any other directly associated activity with a technical connection to the stationary technical unit which could have an effect on pollution.
“Pollution”	Emissions to air arising as a result of human activity which may be harmful to human health or the quality of the environment, cause offence to any human senses, result in damage to material property or impair or interfere with amenities and other legitimate uses of the environment.
“Pollutant”	Any substance or heat released to air as a consequence of a pollution event.
“Air”	Includes air within buildings and air within any other natural or man made structures above and below ground.
“Colourless”	Shall not be taken to mean white, grey or black emissions.
“Fume”	Particulate matter of less than 1 micron diameter, vapours and aerosols of colloidal particles that are visible, but excludes steam.
“Droplets”	Liquid fractions (larger than mist or fume), which are released from the rim of a stack or vent and precipitate from the emission plume within the locality of the emission source.
“Abnormal Emissions”	Any atmospheric emission outside the normal range of the installation when operating under routine conditions.
“Significant Emissions”	Any atmospheric emission visible more than 10 metres from the source
“Ringelmann Shade 1”	The meaning contained within British Standard BS2472: 1969
“Persistent”	A continuous or frequent emission or an emission remaining in the local environment as a consequence of poor dispersion.
“Inspection”	The physical examination of the installation and any associated records (written and electronic format), to assess compliance in respect of the permit.
“Monitoring”	A mechanism for assessing the performance of the process primarily from the volume and nature of the emissions in order to assess compliance with specified emission limit values contained within the permit.
“Visual Assessment”	A programme of routine visual observations and subsequent evaluation of the character of the emission
“Olfactory Assessment”	A routine programme of observation of any odour produced as a result of the process and subsequent identification of its cause if possible.
“Authorised Officer”	An officer authorised by Torfaen County Borough Council to implement the provisions of the Environmental Permitting (England & Wales) Regulations 2016

APPENDIX 2 - Site Plan



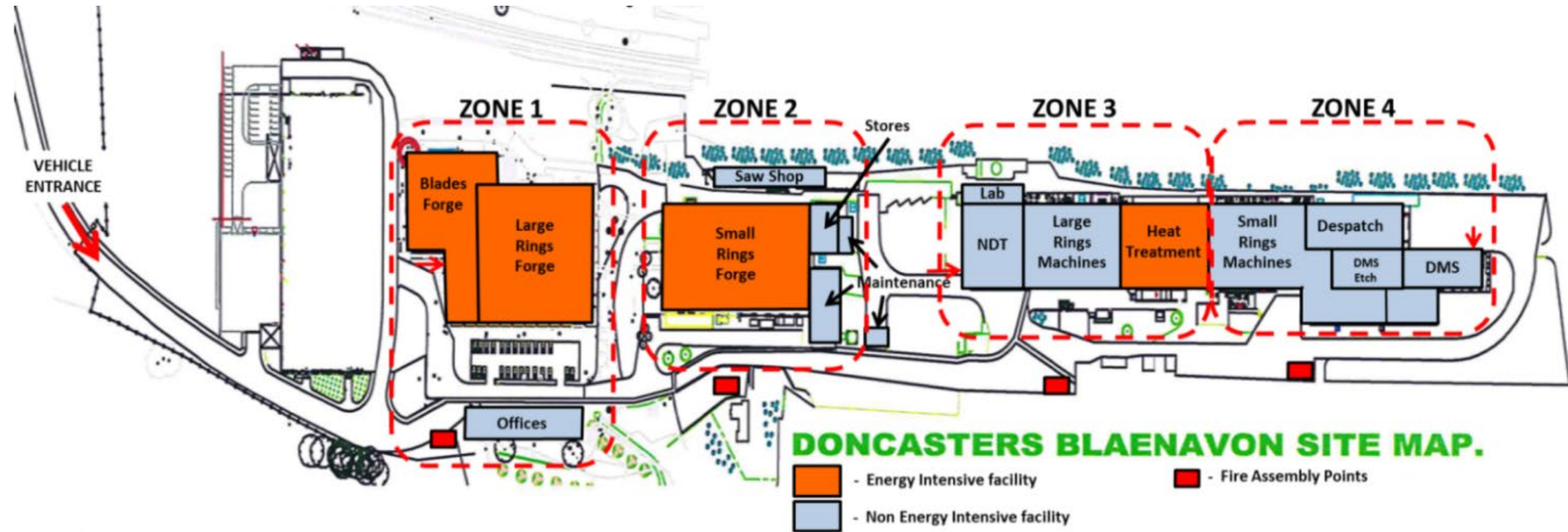
SCHEDULE 1

Details of Emission Points and Sources for all Etch lines

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Figure 1.
Process
Locations



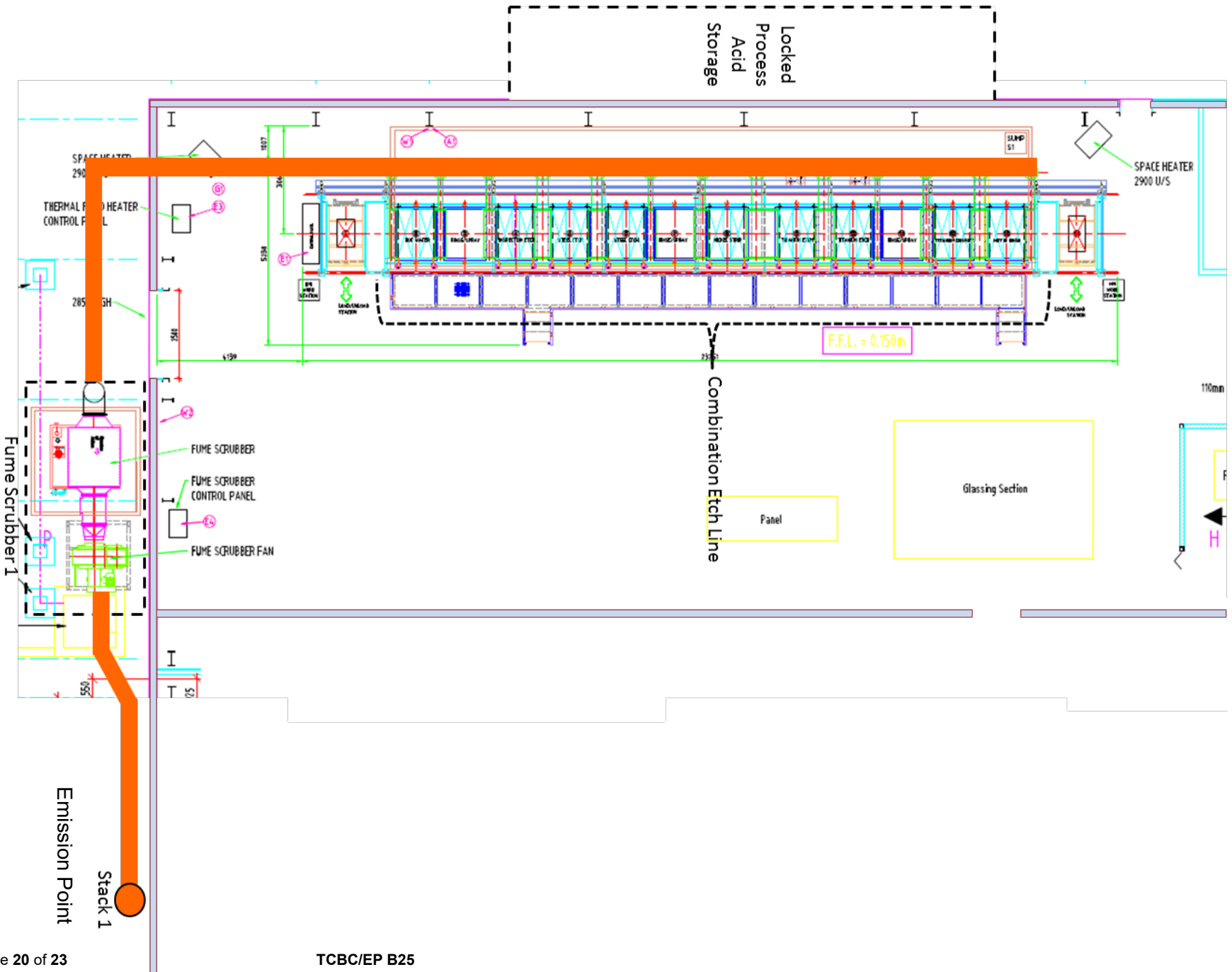


Figure 2
Closed Die Forge - Process Layout
&
Emission Point

Process 1 Closed Die Combination

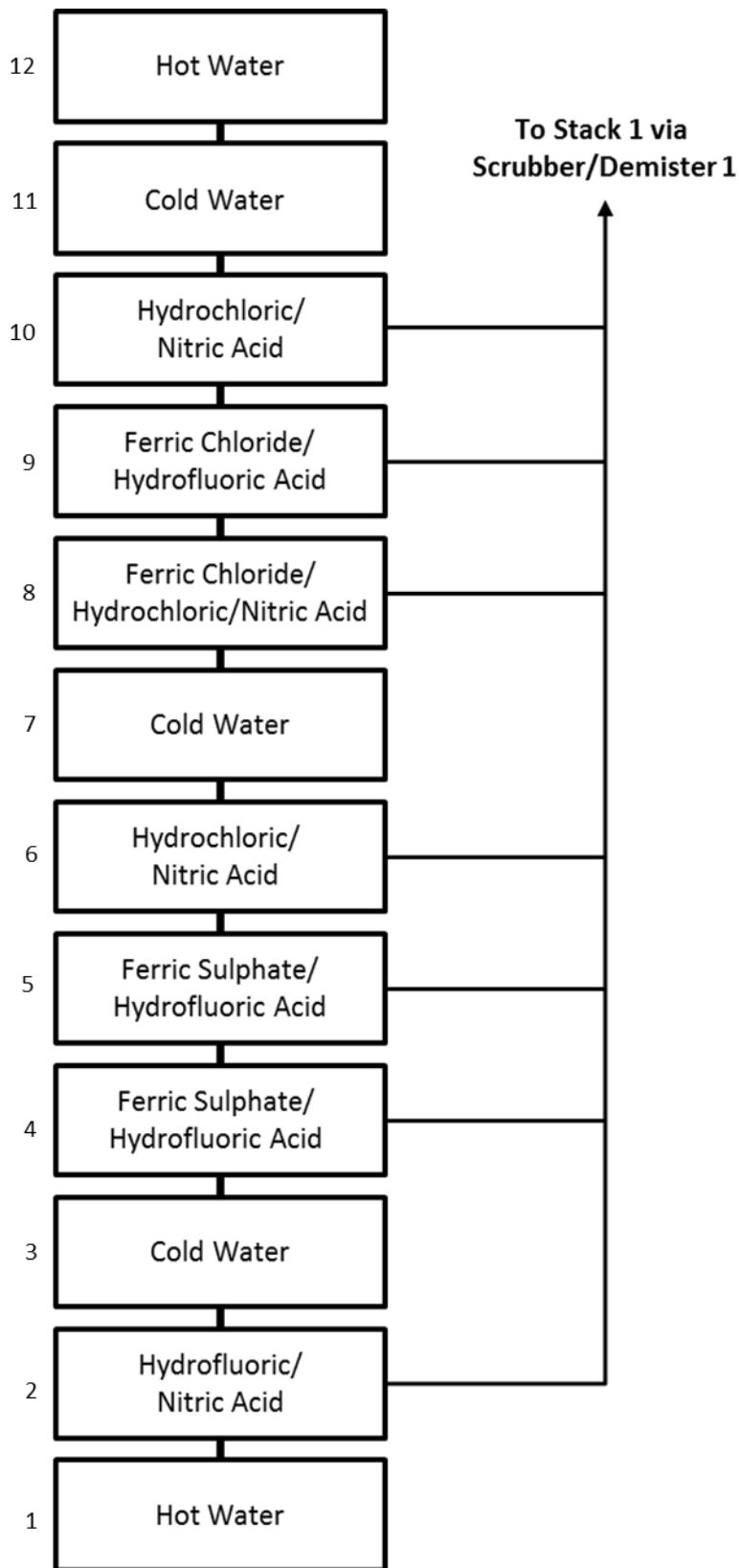
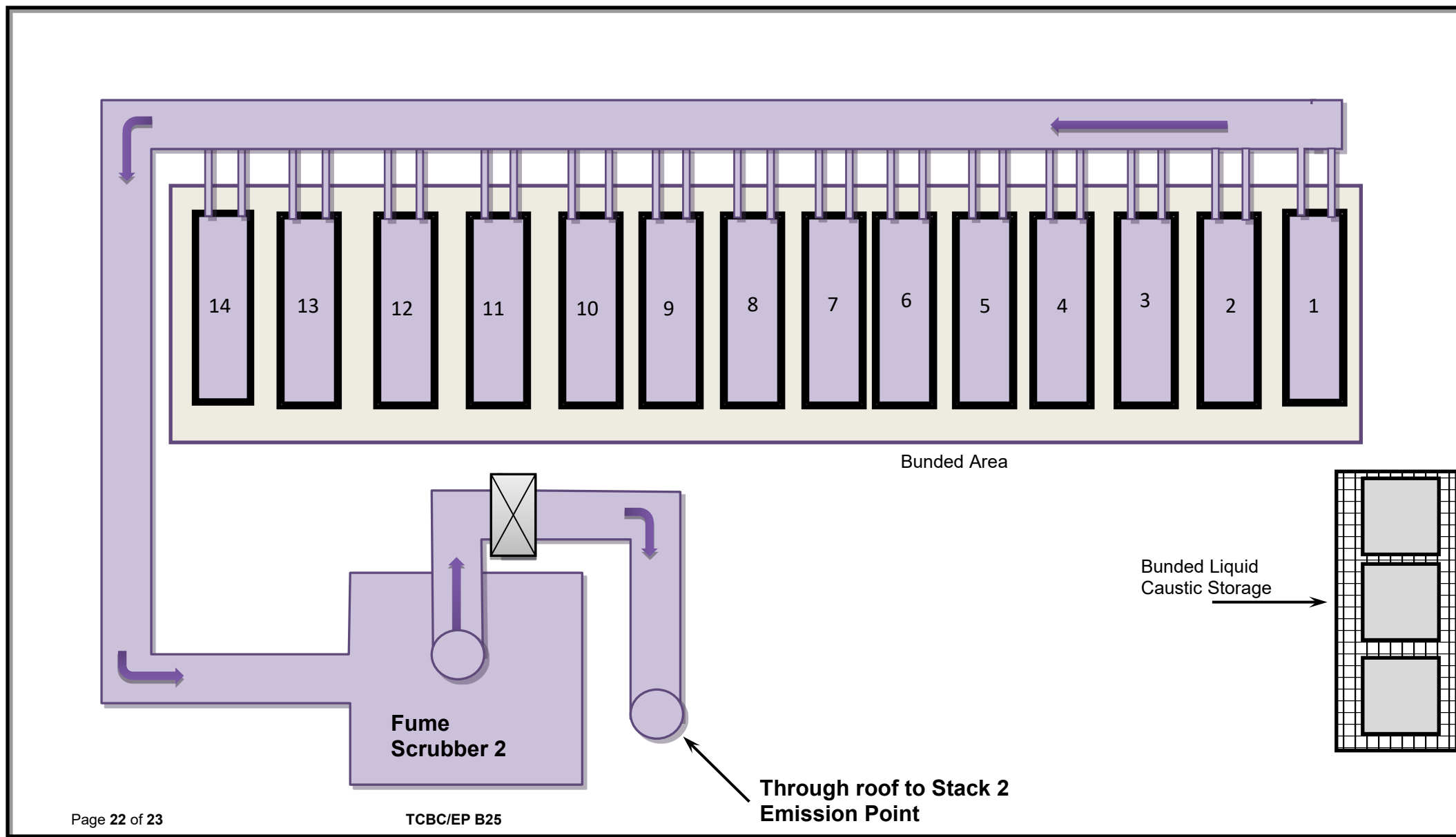


Figure 3. DMS Line Layout



Process 2 DMS - Etch Line

