

## Abbey Mills Sewage Pumping Station Environmental Permit Application, Tranche A Specified Generator Controls,

Non-Technical Summary

Report for Thames Water Utilities Ltd ED12448

#### **Customer:**

#### **Thames Water Utilities Ltd**

Customer reference: FA1300/Lot 3/4700328190

ED12448

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## 1 Introduction

#### Overview 1.1

Thames Water Utilities Ltd (TWUL), has instructed Ricardo Energy and Environment Ltd (Ricardo) to undertake a review of all combustion plants used to generate heat (Boilers) and/or electricity (generators) at their existing Sewage Pumping Station (SPS) located in Abbey Mills, Stratford, London.

The Environmental Permitting (England and Wales) (Amendment) Regulations 2018 SI 1101 were published in January 2018 to transpose the requirements of the Medium Combustion Plant Directive (MCPD) EU/2015/2193 of 25 November 2015 and to control emissions from the operation of Specified Generators (SG). The regulations include significant dates for submitting permit applications for new and existing MCPD and/or SG<sup>2</sup> which have not previously required an environmental permit.

This report identifies all combustion plant assets associated with the Abbey Mills site and assesses each relevant active combustion asset against the new regulatory regime. The object of this review is to identify where each asset falls within the regulations, which require permitting and by when. TWUL own and operate the combustion plant at Abbey Mills SPS however the site is not currently permitted. It is anticipated that the site will need a Tranche A EPR permit, under Specified Generator Controls, given - unit timing of first operation at full load (all pre 1/12/2016); total capacity >5MWth; emissions above 500mg/Nm<sup>3</sup> & operating >50 hours per annum - taking into account the requirements of the SG(/MCPD) Regulations.

The Environment Agency (EA) application forms for bespoke permits involving MCPD and/or SGs require a non-technical summary to be submitted in support of the application to explain the application in non-technical language, as much as possible avoiding technical terms, detailed data and scientific discussion. The regulated activities at Abbey Mills SPS do not fit within the criteria for any of the available standard rules permits, and therefore a bespoke permit is required.

Abbey Mills SPS has **not** previously been permitted in respect to air emissions under EPR and therefore NPS is requested to assign an appropriate new permit application reference number.

This new complex bespoke application is for existing standby combustion plant - three diesel generators -, comprising the Specified Generator, that have been identified as in scope Tranche A generators under the Specified Generator Controls (and wider MCPD requirements). The connecting permitting deadline being 1st October 2019.

We suggest the facility name should be "Abbey Mills SPS - Standby Diesel Generators" to achieve a naming protocol consistent with other locations. The site address details, and grid reference, are given in Section 1.3.

The legal status of Thames Water Utilities Limited is given by Company registration number 02366661.

Contacts relating to this application should be directed to: Nick Lutt **Environmental Consultant** Thames Water Utilities Limited Clearwater Court, Third floor – East Wing

<sup>&</sup>lt;sup>1</sup> http://www.legislation.gov.uk/uksi/2018/110/regulation/16/made

<sup>&</sup>lt;sup>2</sup> https://consult.environment-agency.gov.uk/psc/mcp-and-sg-regulations/

Vastern Road Reading Berks RG18DB T: 07747 640 438 nick.lutt@thameswater.co.uk

Nick Lutt is an authorised contact, previously confirmed by TWUL/EA as holding delegated powers authority, to sign the F1 form (Your ref: EA/delegated Authority/23042015/DH/mf, 2015, as amended).

The Non-Technical Summary (NTS) for Abbey Mills SPS includes the following:

- a summary of the regulated facility;
- a summary of the key technical standards and control measures arising from the risk assessment;
- a summary of future monitoring requirements.

This Non-Technical Summary should be read in conjunction with the rest of this application which comprises:

- Air Quality Modelling Assessment Report;
- Environment Agency Application Forms: Part A, B2.5 & F1. Note this is a digital application.

## 1.2 Regulatory Framework

Medium Combustion Plants (MCPs) and Specified Generators (SGs) are a major source of air pollutants that may cause harm to human health and the environment. In recent years, the UK has seen a need for greater regulatory controls to be imposed on MCPs and SGs due to changes within the electricity market / electricity supply industry. The need for greater control is in part due to the rapid growth within the UK in the use of low-cost, small scale flexible power generation plants. Whilst there is a legitimate role for some rapidly responding generation, there has been a growth in combustion plants and generators which emit high levels of NOx relative to other MCPs, that have previously not been subject to emissions controls.

The Environmental Permitting (England and Wales) (Amendment) Regulations 2018 were published in January 2018 (2018 No.110) (hereby referred to as EPR), which transposed the requirements of the Medium Combustion Plant Directive (MCPD) EU/2015/2193 of 25 November 2015 into domestic law. Within the regulations the requirements for MCPs are set out in Schedule 25A and for SGs in Schedule 25B.

The Directive and amendments to Domestic Legislation are part of the Clean Air Package (published in 2013<sup>3</sup>) and designed to protect air quality by addressing gaps within the regulatory regime, whilst minimising impacts on energy security and costs to businesses. The regulations include significant dates for submitting permit applications for new and existing MCPD and/or Specified Generator (SG) rules which have not previously required an environmental permit<sup>4</sup>. The MCPD and SG Regulations will help achieve new National Emission Ceiling levels by 20305.

Generators more than or equal to 1MWth and less than 50MWth fall within the scope of Schedule 25B of the EPR unless they are an excluded generator.

Generators that are less than 1MWth but have either a capacity agreement in place; an agreement to provide balancing services; or they form part of a specified generator which in total has a rated thermal input more than or equal to 1MWth and less than 50MWth are also captured within Schedule 25B.

Generators equal to or more than 1 MWth will also be Medium Combustion Plant (MCP) and must also meet the requirements of the MCP Directive where permit dates may be earlier and ELV compliance may be different. Both regulations Schedule 25 A and B apply in this instance.

#### 1.2.1 Pre-Application Regulatory Communications

To assist in the interpretation of how the incoming MCPD/SG regulations would affect combustion plant and activities operated by TWUL, TWUL actively entered into channels of communication with the Environment Agency (EA) for pre-application advice. Following a conference call with national EA on 4th October 2018, a number of individual contacts took place between TWUL's Permitting Team and MCPD help from May 2019 onwards. These focused on the practicalities of interpreting the MCPD/SG regulations on generic combustion plant assets, including assets located at Abbey Mills SPS.

## 1.3 The Site

Abbey Mills SPS is located off Abbey Lane, approximately 1.6km South- east of Stratford at the following address:

<sup>&</sup>lt;sup>3</sup> https://www.consilium.europa.eu/en/policies/clean-air/#

<sup>4</sup> https://consult.environment-agency.gov.uk/psc/mcp-and-sg-

regulations/supporting\_documents/Landing%20Page\_5th%20November%202018.pdf

<sup>5</sup> http://ec.europa.eu/environment/air/reduction/index.htm

Abbey Mills Pumping Station A Abbey Lane Stratford London E15 2RN

The National Grid Reference (NGR) for the site centre is TQ 38709 83182. It should be noted that as per the Environment Agency Form B2.5, only an NGR is required when applying for a new standalone MCP/SG permit, rather than a full site plan being required as a supporting document.

The Abbey Mills SPS was originally built in the late 1860s and is located north of the River Thames within the London Borough of Newham. Vehicle and pedestrian access to the SPS site is via Gay Road. The Queen Elizabeth Olympic Park is 1.3 km to the North West of the site, with the junction of the A118 and A12 roads 790m to the West.

The SPS itself is situated within an urban setting, immediately surrounded by residential, industrial and commercial premises. The site is 350m East of the Three Mills Wall River, 210m North-east of the Prescott Channel and 210m North-west of the Abbey Creek. The site is a sewage pumping station with combustion plant operating on fuel oil and natural gas; further details of its combustion plant are in Sections 1.4, 1.5 and 1.6.

A map of the site location is shown in Figure 1.



Figure 1: Site location

Image Source: GoogleMaps © 2019

#### 1.3.1 Potentially Sensitive Receptors

For sites that do not meet SRP criteria, both human and ecological receptors must be identified within a defined radius of the site. Human receptor locations (e.g. homes, hospitals, schools) within a 1.5km radius are summarised within Table 1 below; further details regarding the human receptors and assessing the impacts can be found in the Air Quality Modelling Assessment in Appendix 1.

Table 1: Human receptors within 1.5km of the facility

No	Site Name	Туре	Centroid Location (x, y m)	Approx. distance from SPS centre
1.	Gay Road, Mill Meads, London Borough of Newham	Residential	538566, 183307	166m
2.	Delius Grove, Mill Meads, London Borough of Newham	Residential	538551, 183288	211m
3.	Streimer Road, Mill Meads, London Borough of Newham	Residential	538491, 183235	224m
4.	Ranelagh Primary School, Corporation Street, West Ham, London Borough of Newham	School	539465, 183266	748m
5.	Manor Primary School, Wakelin Road, West Ham, London Borough of Newham	School	539218, 183314	508m
6.	116, Abbey Lane, Mill Meads, London Borough of Newham	Residential	538761, 183313	91m
7.	Leywick Street, Manor Road, West Ham, London Borough of Newham	Residential	539199, 183203	483m
8.	Smarty Pants Day Nursery, Early Start Abbey Lane, 1, Abbey Lane, Mill Meads, London Borough of Newham	School	538384, 183483	414m
9.	Bow School, 44, Twelvetrees Crescent, Bromley-by-Bow, London Borough of Tower Hamlets	School	538160, 182312	1075m
10.	3, Washington Close, Bromley-by- Bow, London Borough of Tower Hamlets	Residential	538025, 182789	820m

Internationally designated habitat sites (SPAs, SACs, and Ramsar Sites) have a screening radius of 10km of the plant, with nationally designated habitat sites (SSSIs and LNRs) having a screening radius of within 2km of the site. The nearest ecological receptor locations are summarised within Table 2 below; further details regarding the ecological receptors and assessing the impacts can be found in the Air Quality Modelling Assessment in Appendix 1.

Table 2: Ecological Receptors within 10km of the facility

Site	Area (km²)	Designation	Approx. distance from site (km)
Lee Valley	1795124	SPA	6.0
Epping Forest	178	SAC	4.9
Epping Forest	1788	SSSI	3.5
Gilbert's Pit (Charlton)	5.2	SSSI	5.4
Oxleas Woodlands	73	SSSI	8.5
Walthamstow Marshes	37	SSSI	5.0
Walthamstow Reservoirs	179	SSSI	6.0
Lee Valley	1795124	Ramsar	6.0

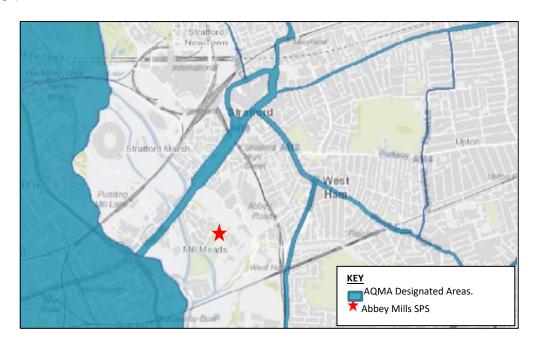
#### 1.3.2 Air Quality Management Area

Local Authorities are required to declare an Air Quality Management Area (AQMA) where it is likely that the relevant air quality objectives will not be achieved and to prepare an Action Plan to set out proposed measures to be taken to achieve the air quality objectives<sup>6</sup>.

Abbey Mills SPS is located within close proximity to the following Air Quality Management Area (AQMA):

Newham AQMA: Nitrogen Dioxide (NO<sub>2</sub>) annual mean and Particulate Matter (PM<sub>10</sub>) 24-hour mean. Declared by London Borough of Newham on 25 March 2002.

The annual objective for nitrogen dioxide and 24-hour mean for particulate matter is currently being exceeded at a number of hotspot locations within this area (primarily linked to main roads across the borough).



<sup>&</sup>lt;sup>6</sup> https://uk-air.defra.gov.uk/air-pollution/uk-eu-limits

## 1.4 Current Combustion Activities

Combustion activities at Abbey Mills SPS consist of four stationary generators, three of which are used under triad avoidance agreements (where TWUL reduce peak demand in the winter by generating their own electricity using standby generators), as well as for emergency use and testing. The other stationary generator is used for testing and emergency use only. The site also has a Central Heating Boiler System. As the boiler does not produce electricity it falls outside the scope of the Specified Generator Regulations but will be re-screened to confirm if it meets the definition of an existing Medium Combustion Plant (which will be subject to the Medium Combustion Plant Regulations at the appropriate time of implementation).

All four generators (Perkins Engine make) have a net rated thermal input of 2.6MW each and were brought into operation in 1996. Three of the four generators (G2, G3 & G4) each operate for over 50 hours per annum. As the "in-scope" generators comprising the specified generator (G2, G3 & G4) are fuelled on red diesel without any secondary abatement installed, their NOx emissions are considered greater than 500 mg/m³ (at reference conditions of 5% oxygen and standard temperature & pressure).

We can confirm the following:

- There are no other relevant permits to note at Abbey Mills SPS
- A single, existing, domestic boiler (B1) so solely, a potential existing MCP was identified for future screening
- One defined 'excluded generator' was identified (G1)
- The Tranche A assets requiring permitting (G2, G3 & G4) do not operate in Short Term Operating Reserve (STOR) and are currently not part of a Capacity Market (CM) auction. The intention would be to continue to run in Triad with the potential to enter a CM auction at a future date.

## 1.5 Combustion assets at Abbey Mills SPS

All five combustion plant assets associated with the Abbey Mills SPS are summarised within Table 3 below.

Table 3: Abbey Mills SPS Combustion Asset Register

TWUL Combustio n Plant No () & Equipment No.	Description (Inc. Plant Make & Model)	Thermal Input (MWth)*	Fuel Source	NOx Emissions (at 5% O <sub>2</sub> )	Date brought into operation	Average hours of operation per Annum	Operational Status	Capacity Market Agreement/Feed in Tariff Accreditation?
(G1) TWU0000 0093176	Oil Generator G1 (Perkins Engine: 4012TAG)	2.6	Fuel Oil (Red Diesel)	>500mg/N m <sup>3</sup>	1996	<50	Testing & Emergency use only	No
(G2) TWU0000 0009509	Oil Generator G2 (Perkins Engine: 4012TAG)	2.6**	Fuel Oil (Red Diesel)	>500mg/ Nm³	1996	<150	Triad avoidance, testing & emergency use	No***
(G3) TWU0000 0009507	Oil Generator G3 (Perkins Engine: 4012TAG)	2.6**	Fuel Oil (Red Diesel)	>500mg/ Nm³	1996	<150	Triad avoidance, testing & emergency use	No***

<sup>&</sup>lt;sup>7</sup> https://www.gov.uk/guidance/specified-generator-when-you-need-a-permit#excluded-generators

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TWUL Combustio n Plant No () & Equipment No.	Description (Inc. Plant Make & Model)	Thermal Input (MWth)*	Fuel Source	NOx Emissions (at 5% O <sub>2</sub> )	Date brought into operation	Average hours of operation per Annum	Operational Status	Capacity Market Agreement/Feed in Tariff Accreditation?
(G4) TWU0000 0009820	Oil Generator G4 (Perkins Engine: 4012TAG)	2.6**	Fuel Oil (Red Diesel)	>500mg/ Nm³	1996	<150	Triad avoidance, testing & emergency use	No***
(B1) 03-01- 000074- 5106515- 22	Central Heating Boiler: Admin Building (Baxi Potterton: Osprey 2 cfl 125)	N/A	Natural Gas	N/A	N/A	N/A	N/A	N/A

<sup>\*</sup> Thermal input of combustion plant rounded up to one decimal point in MWth.

## 1.6 Asset review against EA guidance

All active combustion plant assets (i.e. those currently in operation) associated with Abbey Mills SPS with regards to the MCPD/SG regulations are summarised within Table 4 below. Three fuel oil/red diesel generators (G2, G3 & G4) will require permitting against the regulations for Tranche A Specified Generators and MCPs, as they are operating for Triad avoidance (with potential for future CM entry) as well as emergency use and testing, aggregate to more than 5MWth, and have NOx emissions greater than 500 mg/m<sup>3</sup>, based on the fuel source (red diesel) and no secondary abatement fitted. The Central Heating Boiler will require further screening to determine if it meets the definition of an existing Medium Combustion Plant and does not currently require permitting.

Table 4: Abbey Mills SPS Combustion Asset Review against MCPD & SG Controls

TWUL Combustion Plant No () & Equipment No.	Activity Type (Inc. Plant Make & Model)	Excluded Generator	MCP	Tranche A Specified Generator
(G1) TWU0000093176	Oil Generator G1 (Perkins Engine: 4012TAG)	<b>√</b> 1	N/A	N/A
(G2) TWU0000009509	Oil Generator G2 (Perkins Engine: 4012TAG)	N/A	√2	<b>√</b> 3
(G3) TWU0000009507	Oil Generator G3 (Perkins Engine: 4012TAG)	N/A	√2	<b>√</b> 3
(G4) TWU0000009820	Oil Generator G4 (Perkins Engine: 4012TAG)	N/A	√2	<b>√</b> 3
(B1) 03-01-000074- 5106515-22	Central Heating Boiler: Admin Building (Baxi Potterton: Osprey 2 cfl 125)	N/A	N/A <sup>4</sup>	N/A

#### Notes:

- 1) Oil Generator G1 meets the definition of an excluded generator, as it only operates for testing (<50 hours a year) and emergency use only.
- Generators which have a rated thermal input greater than 1MWth, and have been in operation prior to 20 December 2018, are also classified as existing MCPs, and will be subject to the MCPD at the appropriate date in the future.
- Permit deadlines for Tranche A depend on whether there are individual generators or aggregations. High impact Tranche A 5-50MWth generators with NOx emission >500mg/Nm3 that operate for more than 50 hours per year have a permitting date of 1 October 2019.
- The Central Heating Boiler (B1) will require further screening to determine if it meets the definition of an existing Medium Combustion Plant and does not currently require permitting.

<sup>\*\*</sup>Generators that are operating at the same site, by the same Operator and for the same purpose are to be grouped to form a 'specified generator'. Total thermal input of all in-scope combustion plant is therefore 7.8 MWth under aggregation.

<sup>\*\*\*</sup>Whilst not currently in a CM auction, the average hrs per annum include triad running and potential for future CM inclusion.

## 1.7 Proposed Permit Application

As this site does not currently operate under an EPR permit, it is proposed that a new complex bespoke permit is applied for in order to implement the new EPR controls on SG (and MCP where applicable) on Abbey Mills' existing in-scope combustion plant as listed in bold within Table 4 above by the required permitting deadline of 1st October 2019. The in-scope generators (G2, G3 & G4) have an aggregated net rated thermal input of 7.8MWth, each operate for up to 150 hours per annum, and due to fuel type (red diesel) have NOx emissions greater than 500 mg/m<sup>3</sup>.

It should be noted that compliance to the standard SG emission limit value (ELV) permit condition for NOx (190 mg/Nm<sup>3</sup> at 15% O<sub>2</sub> – equivalent to 500 mg/Nm<sup>3</sup> at 5% O<sub>2</sub>) for these Tranche A generators is not required until 01.01.2025 under current Specified Generator guidance or for the period in which the capacity agreement remains in force (whichever is the latter).

## 2 Assessment

#### 2.1 Technical Standards

As per the MCPD/SG guidance and legislation, there are no permit conditions for water, land, energy efficiency, odour or noise and Best Available Technique (BAT) does not apply. The focus of the risk assessment is therefore on emissions to air from the existing in-scope combustion plant located at Abbey Mills SPS.

Each of the in-scope combustion plant give rise to emissions to air, with the principal pollutant of interest in an assessment being Nitrogen Oxides (NOx). The combustion products are emitted via discrete stacks to enable the dispersion of the pollutants. There will be no point source emissions to air except from these identified in-scope combustion plants, which will be listed in the proposed permit.

The following guidance has been used in the Air Quality Modelling Assessment at Abbey Mills SPS, to assess the environmental risk by the proposed activities at Abbey Mills SPS:

- EA guidance document "Specified Generator Guidance"8
- EA quidance document "Guidance on dispersion modelling for oxides of nitrogen assessment from specified generators"9
- EA guidance document "Air emissions risk assessment for your environmental permit" 10

The Air Quality Modelling Assessment was performed using ADMS 5.2, the results of which determine if the risks posed by the proposed activities are deemed acceptable.

## 2.2 Impact Assessment Conclusions

This report describes an air quality impact assessment of combustion sources at the Abbey Mills Sewage Pumping Station. The assessment assumed three generators used for Triad avoidance to operate for up to 150 hours each per year (and potential for future CM inclusion). The impact of emissions from combustion plant at the Abbey Mills site on nitrogen dioxide (NO2) concentrations was

<sup>8</sup> https://consult.environment-agency.gov.uk/psc/mcp-and-sg-

regulations/supporting\_documents/Generator%20Guidance%20interim\_amended\_contract\_Final.pdf-1

<sup>&</sup>lt;sup>9</sup> https://consult.environment-agency.gov.uk/psc/mcp-and-sg-

regulations/supporting\_documents/Specified%20Generators%20Modelling%20GuidanceINTERIM%20FINAL.pdf

<sup>10</sup> https://www.gov.uk/guidance/air-emissions-risk-assessment-for-your-environmental-permit

assessed against the relevant annual mean and short-term AQOs for the protection of human health. Impacts were also assessed against Critical Levels, Critical Loads, and AQOs for the protection of vegetation and ecosystems at sensitive habitats.

The assessment indicates that human health impacts from the site can be classified as insignificant for the annual mean and short-term air quality objectives at all locations where relevant human exposure is present.

The key conclusions with respects to impacts at designated nature conservation sites were:

- The maximum site contribution to annual mean NOx and SO<sub>2</sub> concentrations is screened out as less than 1% of the Critical Levels at all sites.
- The site contribution to nutrient nitrogen and acid deposition flux is below 1% of the sitespecific Critical Loads at all sites.

In summary, the assessment indicates that impacts at any nearby sensitive habitat sites can be considered insignificant. Further details of the Air Quality Modelling Assessment can be found in Appendix 1.

## 2.3 Abbey Mills Generator Compliance Monitoring

#### 2.3.1 Current Monitoring Requirements

Transitional arrangements are provided for generators which were in operation when the new controls were announced (generators commissioned before 1st December 2016). These arrangements allow operators a reasonable timeframe to achieve compliance with the emission controls and to meet existing agreements with only minimum controls required for protecting local air quality.

As the three in-scope combustion plant at Abbey Mills SPS fall under the definition of a Tranche A Specified Generator, the transitional arrangements will apply, therefore there is currently no requirement to monitor emissions to air from each of the stacks.

#### 2.3.2 Future Monitoring Requirements

As per the legislative requirements for future monitoring of Tranche A Specified Generators, TWUL will implement the relevant monitoring provisions in order to ensure environmental compliance with regards to air emissions. According to the Environment Agency's Specified Generator guidance, as a Tranche A 5-50MWth Specified Generator, the compliance date (for Emission Limit Value compliance) is from 01/01/2025. At the appropriate time, a stack emissions monitoring programme will be identified in accordance with EA Technical Guidance Note M511, with any necessary abatement in place by the required compliance date.

Despite there being no requirement from 1st October 2019 onwards to monitor emissions to air for compliance, TWUL will ensure that the following permit conditions are adhered to for its Tranche A **Specified Generators:** 

- There will be no persistent emission of dark smoke from their permitted emission release points, where "dark smoke" has the meaning given in section 3(1) of the Clean Air Act 1993<sup>12</sup>.
- Protecting Habitats: conditions are determined as detailed in Section 7 of the MCPD guide 13.

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<sup>11</sup> https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/741509/TGN-M5-Monitoring-of-stack-gasemissions-from-medium-combustion-plants-and-specific-generators.pdf

<sup>12</sup> http://www.legislation.gov.uk/ukpga/1993/11/section/3

<sup>13</sup> https://consult.environment-agency.gov.uk/psc/mcp-and-sq-regulations/supporting\_documents/MCPD%20Guidance%20interim.%20Final.pdf

## 2.4 Site Condition Report

There is no requirement for a site condition report when applying for a new environmental permit for a Specified Generator. As per the MCPD/SG guidance and legislation, there are no permit conditions for water, land, energy efficiency, odour or noise and Best Available Technique (BAT) does not apply. As such there is no requirement for a site condition report. In addition, the Environment Agency B2.5 forms only require a national grid reference for the inclusion of MCPD/SGs and a site plan is not required.

## 2.5 Management System

TWUL has an effective, written management system in place for the Abbey Mills SPS that identifies and reduces the risk of pollution, and for each operation involves:

- Identifying environmental legal and policy requirements;
- Identifying significant environmental impacts;
- Setting targets to manage these impacts;
- Regular audits to ensure performance improvements;
- Reviewing the system regularly.

Permitted activities will be managed and operated in accordance with this written management system which complies with the EA requirements as set out in their online guidance 14.

## 2.6 Information

#### 2.6.1 Record

Documents are retained electronically where possible although some records are compiled by hand (e.g. recording of plant conditions/performance). All records are:

- Legible;
- Made as soon as reasonably practicable;
- Documented in such a way that where amendments are made, the original record and any changes are all recorded and retrievable;
- Retained as per EPR permit requirements, or until permit surrender.

#### 2.6.2 Notification

TWUL will notify the Environment Agency without delay following the detection of:

- Any malfunction, breakdown or failure of equipment or techniques, accident or emission, substance not controlled by an emissions limit which has caused, is causing or may cause significant pollution;
- Any significant adverse environmental effect
- Breach of a limit specified in the permit (if applicable)

Written confirmation of actual or potential pollution incidents and breaches of emissions limits (if applicable) will be provided to the Environment Agency at the appropriate timescale. All notifications will be recorded and reported in line with the appropriate section of the permit.

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<sup>14</sup> Develop a management system: environmental permits https://www.gov.uk/guidance/develop-a-management-system-environmental-permits

## 3 Conclusion

The overall conclusion of the risk assessment undertaken in support of this application for a newly permitted MCPD and SG activity, is that there will not be a significant environmental impact from the combustion activities from Abbey Mills' Specified Generator to the immediate surrounding environment.

TWUL are fully committed to ensuring the highest standards are met and will undertake their activities in a manner consistent with best industrial practices and in accordance with the company's environmental management system.

## **Appendices**

Appendix 1: Air Quality Modelling Assessment – Abbey Mills SPS

Appendix 2: Relevant offences

# Appendix 1 – Air Quality Modelling Assessment – Abbey Mills SPS

## Appendix 2 – Relevant offences

Following advice from Miriam Townshend in email dated 14 August 2019, we have listed 1 year of relevant convictions (taken from July 2018 to date). These are detailed below:

- 21 December 2018 One charge under the Environmental Permitting (England and Wales) Regulations 2016, contravened Regulation 12(1)(b) namely the discharge of untreated sewage except under and to the extent authorised by an environmental permit, contrary to Regulation 38(1)(a). Penalty imposed: Fine of £1,800,000
- 10 Jul 2019 Two charges under the under the Environmental Permitting (England and Wales) Regulations 2010, contravened Regulation 38(2) namely Fail to comply with or to contravene an Environmental Permit. Penalty imposed: Fine of £100,000



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