

## Permitting Decisions- Bespoke Permit

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We have decided to grant the permit for LD8 operated by Equinix (UK) Limited.

The permit number is EPR/DP3906BE.

The application is for data centre which consists of a Schedule 1 listed activity, Section 1.1 Part A(1)(a) under the Environmental Permitting Regulations (EPR) for the burning of diesel fuel in an appliance with a rated thermal input of 64 MWth.

We consider in reaching that decision we have taken into account all relevant considerations and legal requirements and that the permit will ensure that the appropriate level of environmental protection is provided.

### Purpose of this document

This decision document provides a record of the decision making process. It summarises the decision-making process to show how the main relevant factors have been taken into account.

This decision document provides a record of the decision-making process. It:

- summarises the decision making process in the [decision considerations](#) section to show how the main relevant factors have been taken into account
- highlights [key issues](#) in the determination
- shows how we have considered the [consultation responses](#)

Unless the decision document specifies otherwise, we have accepted the Applicant's proposals.

Read the permitting decisions in conjunction with the environmental permit.

### Key issues of the decision

#### Description of the installation

The combustion plant comprises 17 diesel fuelled standby generators and 9 boilers, with aggregated total combustion capacity on-site of approximately 64 MWth. The diesel generators are solely used to provide standby electricity generation capacity to power the data centre in the event of a grid power failure.

The data centre is operational 24 hours/day, 7 days/week and its electrical power supply comprises fourteen power supplies which are fed from two separate substations. Of those fourteen supplies, only twelve are used at any one time. The two spare supplies are maintained for use in case of a sudden loss of power to the site. The boilers supply heating for the personnel.

There are 13 generators located within building 6/7 and 8/9 and 4 generators are located outside, to the south of building 6/7 and 8/9. The generators located outside are within designated, acoustic-insulated containers and will be equipped with Selective Catalytic Reduction (SCR) and Diesel Particulate Filters (DPF). These are labelled as B6/7 01, B6/7 02, B8/9 01 and B8/9 02.

During the normal operations of the site, the generators are run for maintenance and testing only, according to a testing schedule which is as follows:

- **Monthly testing schedule – Off load testing scenario.**

Undertaken nine times a year in total. If other tests are run in a month, the off-load test will not occur. Generators are tested for 5 minutes at 30% load.

- **Bi-annually testing schedule - Building load testing scenario.**

Generators are tested for one hour at 60% load.

- **Annual testing schedule – Load bank testing scenario.**

Generators are tested once a year (not undertaken for generator B8/9 06) for one hour at 100% load.

- **Annual testing schedule – UPS Maintenance testing scenario.**

Generators are tested once a year for 6 hours at 60% load.

- **Annual testing schedule – Building 8/9 Generator 06**

This generator is tested once a year for up to 10 minutes at 30% load.

The site is located on an artificial island (Isle of Dogs) within a meander loop of the River Thames, the site's surface is elevated approximately 5 m above sea level, at National Grid Reference TQ 37882 79559. The 6/7 and 8/9 Harbour Exchange (HEX) buildings were designed and used as office buildings, and converted to data centres in approximately 1999, with the Applicant acquiring the site in 2016. As such, the site is considered operational and only 2 generators are installed as part of this application (located in Building 6/7 – 2x5.71 MWth). The surrounding area is a mix of commercial and residential uses.

## **Fuel storage**

There are a total of 26 fuel storage tanks on site. Eleven of these tanks are bulk storage tanks with appropriate secondary containment, including bunding to 110% of each tank's maximum capacity. The other 15 are smaller double skinned day tanks associated with each generator. Twenty-five tanks are above ground, and one is below ground. The tanks are equipped with leak detection systems and are inspected twice a day.

The underground fuel storage tank (UST) was installed in 1999 and is enclosed in concrete casing. The access to this fuel tank is through a hatch one metre below ground level. An integrity test of the UST was undertaken on the 26th April 2021. The tank passed the non-destructive testing and was considered to be in good condition with minimal risk of leakage. The UST is equipped with low and low-low levels alarm as well as a water detection system for water ingress. Site operatives monitor the fuel level in the underground fuel tank monthly with an electronic levelling gauge.

### **Point source emissions**

No point source emissions to water and groundwater are foreseen.

There is one point source emission to sewer that discharges storm water only. The storm water is discharged via an oil interceptor, which limits the potential for hydrocarbon to enter the sewerage system in the event of loss of containment from the generator fuel systems and storage.

### **Air quality**

The Applicant's air quality risk assessment is set out in the application document titled 'Air Quality Impact Assessment' dated 23 March 2023. This included an air dispersion modelling study which assessed the potential impact on local air quality of emissions of oxides of nitrogen (NO<sub>x</sub>), particulates and ammonia (NH<sub>3</sub>) from the generators.

Anticipated emissions are assessed for:

- Human health: by comparison with short-term and long-term nitrogen dioxide (NO<sub>2</sub>) standards and Acute exposure guideline levels (AEGs), screening of particulate matter with a diameter of 10 microns or less (PM<sub>10</sub>),
- Protected conservation areas: by comparison with applicable standards for short-term and long-term NO<sub>x</sub>, long-term NH<sub>3</sub>, nitrogen deposition and acid deposition.

Emissions of PM<sub>10</sub> were assessed using a conservative screening scenario. Impacts of PM<sub>10</sub> emissions are not expected to be significant.

Sulphur dioxide emissions were not assessed as the site uses ultra-low-sulphur diesel and impacts are therefore anticipated to be insignificant.

Refer to our web guidance [Air emissions risk assessment for your environmental permit](#) for the assessment criteria and methodology, air quality standards (AQS), and definitions of technical parameters.

The site is located within the London Borough of Tower Hamlets (LBTH), and within a borough-wide Air Quality Management Area (AQMA) for NO<sub>2</sub> and particulates.

The air dispersion model carried out by the Applicant used the Lakes AERMOD View 11.2.0, which we consider an appropriate air quality modelling tool for regulatory purposes. The model used 5 years of meteorological data (2015-2019) from the London City airport meteorological station and included the potential

effects of buildings and terrain in the modelling domain on the dispersion of the emitted pollutants. The assessment carried out by the Applicant also included a sensitivity analysis of the modelling set up and a statistical interpretation of short-term exceedances of AQS.

Our Air Quality Modelling and Assessment Unit (AQMAU) has audited the air dispersion modelling and report submitted with the permit application, including the selection of inputs, modelling methodology and assumptions, outputs of the modelling exercise, statistical interpretation of modelling outputs and conclusions of the assessment.

Considering the uncertainty of the modelling predictions and statistical analysis we have imposed an improvement condition (IC1) requiring the Applicant to validate the results of their assessment with air quality monitoring at the boundaries of the site.

### **Testing Regime – NO<sub>x</sub> NO and NO<sub>2</sub>**

The Applicant modelled the testing operation of the generators according to the schedules outlined in the section above 'Description of the installation' and also assessed the potential impacts of emergency power generation.

The impact assessment considers the modelled potential for the 1-hour NO<sub>2</sub> AQS of 200 µg/m<sup>3</sup> to be exceeded at receptors due to the site engine emissions. In this case, the short-term baseline, based on the long-term background, is 72.9 µg/m<sup>3</sup>, meaning that the Process Contribution (PC) at a receptor must be greater than 127.1 µg/m<sup>3</sup> NO<sub>2</sub> in order for the modelled Predicted Environmental Concentration (PEC) to exceed the 1-hour NO<sub>2</sub> AQS. The testing regime has been modelled to identify whether testing could potentially result in a PEC > 200 µg/m<sup>3</sup>, with the following results:

- Monthly off-load test results predict a PEC >200 µg/m<sup>3</sup> from one of the test groups and therefore require further analysis;
- Quarterly building load test results predict a PEC >200 µg/m<sup>3</sup> from all test groups, and in some cases PECs above the 10-minute, 30-minute and 1-hour AEGL-1 threshold and the EAL for nitrogen monoxide (NO), and therefore require further analysis;
- Annual UPS maintenance test results predict a PEC >200 µg/m<sup>3</sup> and the 10-minute AEGL-1 threshold, and therefore require further analysis;
- Annual load bank test results predict a PEC > 200 µg/m<sup>3</sup> from all test groups, and in some cases PECs above the 10-minute, 30-minute and 1-hour AEGL-1 thresholds and the EAL for NO, and therefore require further analysis; and
- B8/9 06 test results predict a PEC <200 µg/m<sup>3</sup> and therefore does not require further analysis.

The modelling results presented above indicate that the site testing regime of the generators has the potential to create more than 18 exceedances of the hourly NO<sub>2</sub> standard in a year. Statistical analysis of the model output performed by the Applicant suggests that the chance of the hourly standard being exceeded for more than 18 hours in a year is below 1%. In addition, analysis suggests that the

chance of the AEGL-1 threshold being exceeded for 1-hour NO<sub>2</sub> by any individual one hour test in the site testing regime is 0.78% or less. As the model is intended to be conservative and yet the predicted probability of breaching the AQS or the AEGL-1 threshold for 1-hour NO<sub>2</sub> in practice is low, it is considered unlikely such a breach will occur in practice.

The modelled potential impacts of the generator testing regime on human health by reference to the short-term NO<sub>2</sub> AQS are therefore considered to be not significant.

The testing regime was modelled to potentially result in exceedances of the NO<sub>x</sub> 24-hour standard at one nearby sensitive local ecological receptor, however this is mostly open water (dock) and not therefore sensitive to NO<sub>x</sub> in practice. This was done in a previous submission of the modelling documents. In the meantime, further guidance on the appropriate environmental standard (ES) has been issued and maximum predicted 24-hour NO<sub>x</sub> concentrations now fall below the applicable ES. No further significant potential impacts are foreseen in the model at any designated ecological site assessed, including those associated with anticipated ammonia emissions from SCR.

### **Emergency Operation – Nox, NO and NO<sub>2</sub>**

An emergency power generation scenario with all generators of the site running at the same time for an hour at 60% load was also assessed. In this case, an exceedance of the hourly AQS for NO<sub>2</sub>, an exceedance of the 10-minute, 30-minute and 1-hour AEGL-1 threshold and an exceedance of the Environmental Assessment Level (EAL) for 1-hour NO has been modelled. The NO<sub>2</sub> AQS is considered unlikely to be breached in practice as this would require continuous emergency running more than 18 hours also coinciding with unfavourable dispersion conditions.

The 24-hour and annual mean NO<sub>x</sub> and NH<sub>3</sub> environmental standards (ES) are not expected to be exceeded at nearby local or designated sensitive ecological receptors in a one-hour period of emergency operation.

### **PM<sub>10</sub>**

Potential emissions of PM<sub>10</sub> were assessed and the expected PM<sub>10</sub> emissions are not considered to be significant. Potential impacts of particulate matter with a diameter of 2.5 microns or less (PM<sub>2.5</sub>) were not assessed as there is no short-term standard for PM<sub>2.5</sub>.

### **AQMAU audit results**

As result of our checks, we can conclude:

For the testing scenarios, the PCs are above the insignificance criteria of 10% for short-term (ST) NO<sub>2</sub>, ST PM<sub>10</sub>, NO<sub>2</sub> AEGL-1s & ST NO. We predict that no PECs will exceed the environmental standard (ES).

For the emergency scenarios, the PCs are above the insignificance criteria of 1% for long-term (LT) NO<sub>2</sub> and 10% for ST NO<sub>2</sub>, ST PM<sub>10</sub>, NO<sub>2</sub> AEGL-1s and ST NO. We predict that only the PECs for ST NO<sub>2</sub> and ST PM<sub>10</sub> have the potential to exceed the ES.

Our probability analysis indicates that an exceedance of the hourly mean NO<sub>2</sub> ES was unlikely for this scenario, based on a worst-case 72-hour operational period. The ST PM<sub>10</sub> ES cannot be breached in 72 hours of emergency operation as it would require at least 35 days of exceedance of the 50 µg/m<sup>3</sup> threshold. Information provided by the consultant on historical power outages at the facility indicate that that this is highly unlikely to occur.

It is worth noting that since 2016 when the site was acquired by the Operator, there have been three outages, detailed below:

- On the 29th March 2022, two emergency back-up diesel fired generators were run between 12:42 and 17:35 due to an electric high voltage supply cable failing on site;
- On the 19th May 2022, two emergency back-up diesel fired generators were run between 17:55 and 21:20 due to an off-site power disturbance; and
- On the 3rd June 2022, two emergency back-up diesel fired generators were run between 18:35 until 00:47 on 04/06/2022 due to an off-site power disturbance.

The data seems to confirm the probability analysis.

The testing scenario is unlikely to make a significant contribution or cause an exceedance of any critical loads and levels at ecological receptors.

We cannot rule out an exceedance of the 24-hour NO<sub>x</sub> critical level of 200µg/m<sup>3</sup> at the Millwall and West India Docks LWS during the emergency scenario. Our sensitivity analysis indicates that without building downwash effects, exceedances are unlikely. This LWS is located within the building cavity region; validation studies demonstrate that building downwash effects may introduce a high degree of uncertainty, indicating a low level of confidence in predictions at the LWS.

Thus, we have specified an improvement condition IC1 requiring the operator to determine the actual short-term NO<sub>x</sub> concentrations at the site boundary through monitoring to contribute to the validation of conclusions reached in the air quality assessment within the application and to inform the air quality management plan.

### **Permit conditions**

Permit condition 2.3.5 includes a maximum 500 hour 'emergency/standby operational limit' for any or all the plant producing on-site power under the limits of the combustion activity; and thereby emission limit values (ELVs) to air are not required within the permit. Monitoring is required for the two newly installed

generators. Emergency hours operation includes those unplanned hours required to come off grid to make emergency repair of electrical infrastructure associated but occurring only within the data centre itself.

The limit on the emergency use of 500 hours is for the installation as a whole, meaning that as soon as one generator starts operating the hours count towards the 500 hours.

The planned testing operations of the generators shall be limited to the maximum testing hours described in the testing schedule outlined in the application documents and included by reference in the Operating Techniques Table S1.2 of the permit.

Reporting of standby engine maintenance run hours is required annually and any electrical outages (planned or grid failures regardless of duration) requires both immediate notification of the Environment Agency and annual reporting.

We have included IC2 requiring the Operator to provide a monitoring plan for approval detailing their proposal for the implementation of the flue gas monitoring requirements specified in Table S3.1 for the two new generators with emission points A10 and A11.

## **Noise**

The primary noise sources on site are the generators, chillers, fans and transformers. Most of the generators are located within buildings which will attenuate sound emissions. The generators outside are within designated, acoustic-insulated containers.

We are not aware of any previous noise complaints relating to the site and the Applicant declared that there has not been any history of noise complaints due to the activities carried out at the site.

Although no noise management plan has been requested, the Applicant submitted one. We have not included this plan in the operating techniques table as it did not provide sufficient details. However, permit condition 3.4.2 enables us to request an updated version if considered necessary in the future.

## **Best Available Techniques (BAT)**

We accept that oil fired diesel generators are presently a commonly used technology for standby generators in data centres. However, we requested a BAT assessment detailing the choice of engine, the configuration and plant sizing meeting the standby arrangement.

The default generator specification as a minimum for new plant to minimise the impacts of emissions to air (NO<sub>x</sub>) is 2g TA-Luft (or equivalent standard) or an equivalent NO<sub>x</sub> emission concentration of 2000mg/m<sup>3</sup> at reference conditions and 5% oxygen (O<sub>2</sub>). The generator specifications on the site have emissions higher than this. The Applicant's assessment attributed this to the generators, being existing since the site was acquired by Equinix.

We do acknowledge that it would not be practicable to require the Applicant at this stage to upgrade all plant to BAT standards. Retrofit abatement techniques for existing installations for engine emissions such as SCR would not normally be expected for standby plant to mitigate the emissions for standby/emergency operation, but it may be justified when the results of the environmental risk assessment warrants so. The operator has agreed to equip the generators located outside with SCR. These are identified as B6/7 01, B6/7 02, B8/9 01 and B8/9 02.

The operator has also agreed to change the configuration of the stacks for 9 of the generators. The revised stack setups were selected in line with Environment Agency best practice, as prescribed in the Data Centre FAQs (v21) guidance. The stacks for generators B8/9 03, B8/9 06, EC 01, EC 02 and EC 03 are to be changed from horizontal to vertical and extend to roof height plus 3m (40.5m above ground level). The stacks orientation for generators B6/7 01, B6/7 02, B8/9 01 and B8/9 02 is already vertical but will be extended by 4 meters (8.9m above ground level for B6/7 and 8.1m above ground level for B8/9).

We have included IC3 requesting the Operator to provide evidence that the SCR, DPF and stack configuration changes have been implemented.

The data centre's internal power supply comprises fourteen power supplies which are fed from two separate substations. Of those fourteen supplies, only twelve are used at any one time. The two spare supplies are maintained for use in case of a sudden loss of power to the Site. In such a situation, the Site can switch to use one of the two spare supplies meaning that supply from the National Grid can be maintained rather than relying on the on-site generators to produce electricity. When incoming mains power supply is disrupted, the UPS (battery arrays) on site is designed to last at least 6 minutes. The UPS increases the Site's resilience to power outages without the on-site generators needing to operate.

## **Decision considerations**

### **Confidential information**

A claim for commercial or industrial confidentiality has not been made.

The decision was taken in accordance with our guidance on confidentiality.

### **Identifying confidential information**

We have not identified information provided as part of the application that we consider to be confidential.

The decision was taken in accordance with our guidance on confidentiality.



## Consultation

The consultation requirements were identified in accordance with the Environmental Permitting (England and Wales) Regulations (2016) and our public participation statement.

We consulted the following:

- The Director of Public Health
- UK Health Security Agency (UKHSA)
- Local Authority (Planning & Environmental Health)
- Health & Safety Executive (HSE)

The comments and our responses are summarised in the [consultation responses](#) section.

The application was publicised on the GOV.UK website.

## Operator

We are satisfied that the Applicant (now the operator) is the person who will have control over the operation of the facility after the grant of the permit. The decision was taken in accordance with our guidance on legal operator for environmental permits.

## The regulated facility

We considered the extent and nature of the facility at the site in accordance with RGN2 'Understanding the meaning of regulated facility', Appendix 2 of RGN2 'Defining the scope of the installation', Appendix 1 of RGN 2 'Interpretation of Schedule 1'.

The operator has provided the location for the emission points from the specified generators.

The extent of the facility is defined in the site plan and in the permit. The activities are defined in table S1.1 of the permit.

## The site

The operator has provided plans which we consider to be satisfactory.

These show the extent of the site of the facility including the emission points.

The plan is included in the permit.

## Site condition report

The operator has provided a description of the condition of the site, which we consider is satisfactory. The decision was taken in accordance with our guidance on site condition reports and baseline reporting under the Industrial Emissions Directive.

## Nature conservation, landscape, heritage and protected species and habitat designations

We have checked the location of the application to assess if it is within the screening distances we consider relevant for impacts on nature conservation, landscape, heritage and protected species and habitat designations. The application is within our screening distances for these designations:

Local Wildlife Sites:

Millwall and West India Docks - 69m

River Thames and tidal tributaries - 36m

We have assessed the application and its potential to affect sites of nature conservation, landscape, heritage and protected species and habitat designations identified in the nature conservation screening report as part of the permitting process.

We consider that the application will not affect any site of nature conservation, landscape and heritage, and/or protected species or habitats identified.

The following improvement conditions have been placed on the permit to protect the local wildlife sites.

- IC1 to validate the modelling emissions for NO<sub>x</sub> and send it to us for approval.

The decision was taken in accordance with our guidance.

## Environmental risk

We have reviewed the operator's assessment of the environmental risk from the facility.

The operator's risk assessment is satisfactory.

The assessment shows that, applying the conservative criteria in our guidance on environmental risk assessment or similar methodology supplied by the operator and reviewed by ourselves, all emissions screen out as environmentally insignificant.

We cannot rule out an exceedance of the 24-hour NO<sub>x</sub> critical level of 200µg/m<sup>3</sup> at the Millwall and West India Docks LWS during the emergency scenario due to the building cavity region, as detailed in section Key issues above.

## **Operating techniques**

We have reviewed the techniques proposed by the operator and compared these with the relevant technical guidance and we consider them to represent appropriate techniques for the facility.

The operating techniques that the Applicant must use are specified in table S1.2 in the environmental permit.

## **Operating techniques for emissions that screen out as insignificant**

Emissions of NO<sub>x</sub>, particulates and NH<sub>3</sub> have been screened out as insignificant, and so we agree that the Applicant's proposed techniques are Best Available Techniques (BAT) for the installation, as detailed in section Key issues above.

We consider that the emission limits included in the installation permit reflect the BAT for the sector.

## **Raw materials**

We have specified limits and controls on the use of raw materials and fuels.

## **Improvement programme**

Based on the information on the application, we consider that we need to include an improvement programme.

We have included an improvement programme, as detailed in the Key issues section.

## **Emission Limits**

We have decided that emission limits are not required in the permit.

Less than 500 operating hours per year exemption from emission limits (however monitoring is required).

## **Monitoring**

We have decided that monitoring should be carried out for the parameters listed in the permit, using the methods detailed and to the frequencies specified.

We have specified monitoring of emissions of carbon monoxide from emission points A10 and A11 (new medium combustion plant), with a minimum frequency of once every 1500 hours of operation or every five years (whichever comes first). This monitoring has been included in the permit in order to comply with the requirements of Medium Combustion Plant Directive, which specifies the minimum requirements for monitoring of carbon monoxide emissions, regardless of the reduced operating hours of the plant.

We have also specified monitoring of emissions of nitrogen oxides from emission points A10 and A11 (new medium combustion plant), with the same frequency specified for the monitoring of carbon monoxide emissions. In setting out this requirement, we have applied our regulatory discretion, as we consider that this limited monitoring, to happen in concurrence with the carbon monoxide monitoring, is proportionate to the risk associated with the emissions of NOx from the installation.

Taking into account the limited hours of operation of the engines operating at the installation, and the fact that we are not setting emission limits for NOx and carbon monoxide, we consider this monitoring can be carried out in line with web guide 'Monitoring stack emissions: low risk MCPs and specified generators' Published 16 February 2021 (formerly known as TGN M5).

We have set an improvement condition (IC2) requesting the operator to submit a monitoring plan for approval by the Environment Agency detailing the operator's proposal for the implementation of the flue gas monitoring requirements specified in the permit.

## **Reporting**

We have specified reporting in the permit.

We have added reporting requirements for emissions to air of every 3 years, as opposed to 5 years – as stated for backup generators. We deemed this necessary for monitoring the site performance.

We made these decisions in accordance with Environmental Protection Regulation.

## **Management System**

We are not aware of any reason to consider that the operator will not have the management system to enable them to comply with the permit conditions.

The decision was taken in accordance with the guidance on operator competence and how to develop a management system for environmental permits.

We only review a summary of the management system during determination. The Applicant submitted their full management system. We have therefore only reviewed the summary points.

A full review of the management system is undertaken during compliance checks.

## **Previous performance**

We have assessed operator competence. There is no known reason to consider the Applicant will not comply with the permit conditions.

No relevant convictions were found. The operator satisfies the criteria in our guidance on operator competence.

## **Financial competence**

There is no known reason to consider that the operator will not be financially able to comply with the permit conditions.

## **Growth duty**

We have considered our duty to have regard to the desirability of promoting economic growth set out in section 108(1) of the Deregulation Act 2015 and the guidance issued under section 110 of that Act in deciding whether to grant this permit.

Paragraph 1.3 of the guidance says:

“The primary role of regulators, in delivering regulation, is to achieve the regulatory outcomes for which they are responsible. For a number of regulators, these regulatory outcomes include an explicit reference to development or growth. The growth duty establishes economic growth as a factor that all specified regulators should have regard to, alongside the delivery of the protections set out in the relevant legislation.”

We have addressed the legislative requirements and environmental standards to be set for this operation in the body of the decision document above. The guidance is clear at paragraph 1.5 that the growth duty does not legitimise non-compliance and its purpose is not to achieve or pursue economic growth at the expense of necessary protections.

We consider the requirements and standards we have set in this permit are reasonable and necessary to avoid a risk of an unacceptable level of pollution. This also promotes growth amongst legitimate operators because the standards applied to the operator are consistent across businesses in this sector and have been set to achieve the required legislative standards.

## Consultation Responses

The following summarises the responses to consultation with other organisations, and the way in which we have considered these in the determination process.

### Responses from organisations listed in the consultation section:

Response received from Tower Hamlets London Borough Councils.

Brief summary of issues raised:

- concerns over the legacy generators and their low stacks,
- concerns over the likelihood of hourly NO<sub>2</sub> exceedances,
- previous complaints of smoke and fumes.

Summary of actions taken:

- Generators labelled as B6/7 01, B6/7 02, B8/9 01 and B8/9 02 will be fitted with SCRs and DPFs;
- The stacks for generators B8/9 03, B8/9 06, EC 01, EC 02 and EC 03 are to be changed from horizontal to vertical and extend to roof height plus 3m (40.5m above ground level). The stacks orientation for generators B6/7 01, B6/7 02, B8/9 01 and B8/9 02 are already vertical but will be extended by 4 meters (8.9m above ground level for B6/7 and 8.1m above ground level for B8/9); and
- The testing schedule has been reduced.