Technical Note

Project Title:	Didcot North Data Centre Campus		
Project No.	794-DES-ARC-30974		
Issue Date:	28 November 2025		
Document Ref:	EPR/GP3127LV/A001	**Rev:**	Version 1
Subject:	Response to Request for More Information		

This technical note provides responses to the request for more information issued by the Environment Agency, 14th November 2025. For each point included in the Environment Agency request, the information requested is provided followed by the response providing further information/clarification.

1) Form B2, Question 5a Provide a plan or plans for the site:

The infrastructure/ emission point site plan is insufficient. Your site plan must include all generators, fuel and raw material storage areas, fuel unloading bays, tanker fill points, site drainage (from permitted area), interceptors and discharge points within the green permitted boundary.

I understand that uncontaminated surface water run-off will be discharged from areas within the permitted boundary. Therefore, emission points to water and/or foul need to be included within the green permitted boundary and labelled as water and/or foul discharge points on the emission point site plan. Emissions to air also need to be labelled A1 - A129 or similar. Please add all items to the plan and re-submit.

For further information on preparing your site infrastructure plan please see our guidance under Develop a management system: environmental permits (Develop a management system: environmental permits - GOV.UK (www.gov.uk)).

The submitted plan includes the area to be occupied by the proposed installation including all generators, fuel and raw material storage areas, fuel unloading bays, tanker fill points, site drainage (from permitted area), interceptors and discharge points. The plan has been amended to include additional labelling of the fuel tanks and interceptors. In addition, as requested the emissions to air and water have been added. The updated plan is provided in Appendix A.

2) Form B2, Question 6 Environmental risk assessment (Air Quality Assessment): The following aspects required by our guidance were not provided in the Air Quality Assessment:

- **The House generators do not meet the emission requirements of 2g TA-Luft or US EPA Tier 2 and are therefore not BAT. The emission data sheet states, 'This engine, tested in accordance with 40 CFR 89, is in compliance with the 2001 US EPA Nonroad Tier 1 regulations' therefore, they are not BAT. Will the Operator be changing the generator specifications to ensure all are BAT? We should not need an updated Air Quality Assessment if the House generators are changed, because the emission rates would hopefully be lower. However, we will require a full set of emission parameters for the new generators.**

  Please see updated generator specification for the house generators which confirms they meet US EPA Tier 2 requirements - see header on page 11, Appendix B. The updated generator specification provides updated emissions parameters for the new generator specification, these are summarised in Table 1 below and compared to the data used to inform the air quality assessment.

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Table 1: Comparison of New House Generator Data with Modelled Data

Pollutant	Emission Rate (g/hp-h)		Emission Rate (g/s)			
	New Data	Modelled Data	New Data		Modelled Data	
	100% Load	100% Load	100% Load	25% Load	100% Load	25% Load
NO_x	5.4	7.45	1.5975	0.432	1.992875	0.538056
PM_{10}	0.02	0.07	0.005917	0.0016	0.018725	0.005056
SO_2	0.1	0.16	0.029583	0.008	0.0428	0.011556
CO	0.22	3.21	0.065083	0.0176	0.858675	0.231833
HC (as benzene)	0.1	0.07	0.029583	0.008	0.001873	0.000506

Note:

1. New House Generator Engine Power is 1065 BHP@ 1005 load and 288 BHP at 25% load
2. Modelled House Generator Engine Power is 1065 BHP@ 963 load and 494 BHP at 25% load

The emissions of all pollutants other than hydrocarbons(HC) are below those modelled and therefore the air quality assessment is considered conservative for those pollutants.

The original HC emission rate was 0.007 g/BHP-hr (0.0019 g/s), whereas the updated specification indicates 0.1 g/BHP-hr (0.047 g/s).

While this represents an increase for HC, the overall contribution from the house generators would remain relatively minor compared to the main generators, which have an HC emission rate of 0.35 g/BHP-hr and account for 122 of the 128 generators on site. Only four house generators are affected by the updated generator selection.

In the Air Emissions Risk Assessment (AERA), the potential impacts associated with the testing and maintenance scenarios were assessed. Both annual mean and 1-hour mean impacts associated with benzene were screened out in line with step 1 and 2 of the EA guidance:

- **Annual mean benzene:** To be potentially significant, the PEC would need to exceed 70% of the AQO. Our highest PEC was 5.8%.
- **1-hour mean benzene:** To be potentially significant, the PC would need to exceed 5% of the AQO. Our highest PC was 3.22%.

In the outage scenario, annual mean benzene impacts were screened out at all receptors. 1-hour mean benzene impacts were "potentially significant" at all receptors, however, justification was provided in the AERA as to why these can be considered not significant.

The increase of HC emissions associated with the proposed house generators are unlikely to lead to a material change in assessment outcome. This is due to the house generators making up four out of the total 128 generators, as well as the headroom for both annual mean and 1-hour mean impacts associated with the testing and maintenance scenario.

- **Please provide 99.79th and 100th percentile 1-hour NO_2 process contributions (PCs) and predicted environmental concentrations (PECs) for the testing and emergency outage scenarios at human health receptors. Currently, only the results from statistical analysis have been provided.**

  The 99.79th percentile would not be applicable for the scenarios we have modelled as the generators would not be operational for a whole year. As such, we have used the percentiles that represent the 19th highest hour based on the operational hours of the generators for each modelled scenario. These percentiles are listed in Table 11 of the Air Emissions Risk Assessment.
  The PC and PEC for the representative percentile for the 19th highest hour and the 100th percentile for combined testing scenarios have been provided in Table 2. This has been updated in Section 1.1.2 Table 69 and Section 3.1 Table 87 of Appendix 4 of the updated assessment in Appendix C.

Table 2: Short Term NO_2 Concentration from Combined Testing and Maintenance Scenario.

Receptor	Combined Testing and Maintenance Scenario			
	Representative percentile for the 19th highest hour NO_2		100th percentile NO_2	
	PC (µg/m^3)	PEC (µg/m^3)	PC (µg/m^3)	PEC (µg/m^3)
R1	21.5	38.7	30.3	47.4
R2	6.6	23.2	16.5	33.1
R3	10.3	27.5	17.0	34.1
R4	4.5	23.2	10.9	29.6
R5	8.3	23.9	15.5	31.1
R6	6.9	24.0	14.7	31.8
R7	7.9	24.6	15.8	32.4
R8	4.1	22.8	14.5	33.2
R9	6.2	22.5	15.7	32.0
R10	6.7	22.3	15.4	31.0
R11	6.7	22.3	12.9	28.5
R12	5.4	22.1	14.6	31.2
R13	3.2	21.9	12.6	31.3
R14	3.1	19.0	14.5	30.3
R15	5.9	22.6	15.6	32.3
R16	3.1	18.9	12.0	27.8
R17	5.7	20.4	11.8	26.5

Receptor	Combined Testing and Maintenance Scenario			
	Representative percentile for the 19th highest hour NO_2		100th percentile NO_2	
	PC (µg/m³)	PEC (µg/m³)	PC (µg/m³)	PEC (µg/m³)
R18	6.9	22.5	13.2	28.8
R19	3.0	18.8	10.8	26.6
R20	5.4	21.0	14.1	29.7
R21	4.2	20.9	14.2	30.9
R22	5.2	21.6	11.8	28.1
R23	4.5	19.2	12.2	26.9
R24	4.6	21.3	10.8	27.5
R25	4.5	20.2	13.0	28.7
R26	4.1	19.9	10.1	25.9
R27	4.6	21.0	11.9	28.2
R28	4.8	21.2	12.7	29.0
R29	4.5	21.7	11.6	28.9
R30	2.1	21.4	9.0	28.2
R31	4.3	21.5	10.1	27.3
R32	4.7	20.5	9.7	25.5
R33	4.2	19.8	10.2	25.9
R34	4.0	18.8	8.6	23.3
R35	4.4	20.0	9.6	25.2
R36	3.2	19.3	8.2	24.3
R37	4.5	23.0	9.2	27.6
R38	3.8	20.1	8.9	25.2
R39	2.0	17.8	6.1	22.0
R40	3.7	19.8	8.2	24.3
R41	3.5	19.9	8.7	25.1
R42	4.4	21.1	8.7	25.5
R43	1.9	17.2	6.3	21.6
R44	3.6	18.3	8.2	23.0
R45	3.2	19.9	7.3	24.1
R46	3.4	19.5	7.5	23.6
R47	3.3	19.4	7.1	23.2
R48	2.1	16.4	5.2	19.5
R49	3.1	19.0	6.3	22.1
R50	2.7	19.0	5.7	22.0
R51	2.9	18.8	6.4	22.2
R52	2.2	19.3	5.4	22.4

Receptor	Combined Testing and Maintenance Scenario			
	Representative percentile for the 19th highest hour NO_2		100th percentile NO_2	
	PC (µg/m³)	PEC (µg/m³)	PC (µg/m³)	PEC (µg/m³)
R53	2.4	19.0	5.9	22.6
R54	2.5	18.6	5.4	21.5
R55	2.2	18.9	5.2	21.8
R56	2.1	18.5	4.5	20.9
R57	2.1	18.5	4.1	20.5
R58	2.0	20.8	4.0	22.8
R59	2.0	18.3	3.9	20.3
R60	1.8	18.3	3.5	20.1
R61	1.9	20.8	3.5	22.4

The PC and PEC for the 19th highest hour and the 100th percentile for Outage Scenario have been provided in Table 3. Section 1.1.2 Table 69 and Section 3.1 Table 87 of Appendix 4 of the updated assessment in Appendix C.

Table 3: Short Term NO_2 Concentration from Outage Scenario.

Receptor	Outage Scenario			
	Representative percentile for the 19th highest hour NO_2		100th percentile NO_2	
	PC (µg/m³)	PEC (µg/m³)	PC (µg/m³)	PEC (µg/m³)
R1	33.4	50.5	1352.0	1360.6
R2	<0.1	16.6	1619.3	1627.6
R3	1.7	18.8	1645.1	1653.7
R4	<0.1	18.7	826.9	836.2
R5	37.8	53.4	1357.2	1365.0
R6	4.8	21.9	1383.8	1392.4
R7	0.7	17.3	1147.9	1156.2
R8	<0.1	18.7	822.9	832.3
R9	3.3	19.6	1186.5	1194.6
R10	49.6	65.2	1315.6	1323.4
R11	153.7	169.3	1185.0	1192.8
R12	<0.1	16.7	1435.2	1443.6
R13	<0.1	18.7	1040.2	1049.5
R14	<0.1	15.8	885.4	893.3
R15	0.1	16.8	1422.5	1430.8
R16	<0.1	15.8	927.1	935.0
R17	0.1	14.8	1066.6	1073.9
R18	153.2	168.8	1130.7	1138.5

Receptor	Outage Scenario			
	Representative percentile for the 19th highest hour NO_2		100th percentile NO_2	
	PC (µg/m³)	PEC (µg/m³)	PC (µg/m³)	PEC (µg/m³)
R19	<0.1	15.8	933.0	941.0
R20	53.8	69.4	959.3	967.1
R21	<0.1	16.7	1167.2	1175.5
R22	0.7	17.0	949.4	957.5
R23	<0.1	14.7	969.8	977.1
R24	<0.1	16.7	1047.3	1055.7
R25	47.0	62.7	869.9	877.8
R26	1.9	17.8	929.8	937.7
R27	<0.1	16.4	897.7	905.9
R28	<0.1	16.4	872.8	881.0
R29	<0.1	17.2	884.2	892.8
R30	<0.1	19.2	753.8	763.4
R31	<0.1	17.2	832.9	841.5
R32	10.3	26.1	830.5	838.4
R33	43.2	58.8	778.8	786.7
R34	<0.1	14.8	754.8	762.2
R35	49.3	64.9	751.1	758.9
R36	<0.1	16.1	772.9	781.0
R37	58.5	77.0	697.0	706.2
R38	<0.1	16.4	691.6	699.7
R39	<0.1	15.8	601.2	609.2
R40	<0.1	16.1	743.0	751.0
R41	<0.1	16.4	663.8	672.0
R42	38.4	55.2	792.1	800.5
R43	<0.1	15.3	575.4	583.1
R44	<0.1	14.7	697.5	704.9
R45	2.5	19.3	709.5	717.8
R46	22.8	38.9	686.3	694.3
R47	27.0	43.1	661.2	669.3
R48	2.0	16.3	535.7	542.9
R49	27.1	43.0	590.2	598.1
R50	17.9	34.2	485.3	493.4
R51	33.6	49.5	552.6	560.5
R52	1.0	18.0	498.9	507.5
R53	12.4	29.1	495.3	503.6

Receptor	Outage Scenario			
	Representative percentile for the 19th highest hour NO_2		100th percentile NO_2	
	PC (µg/m³)	PEC (µg/m³)	PC (µg/m³)	PEC (µg/m³)
R54	6.3	22.4	543.1	551.1
R55	11.7	28.3	543.0	551.3
R56	18.3	34.7	427.6	435.8
R57	10.5	26.9	417.4	425.5
R58	1.4	20.3	408.3	417.7
R59	4.8	21.2	426.3	434.5
R60	16.1	32.6	381.0	389.3
R61	8.0	26.9	386.3	395.8

- **Please provide 100th percentile 1-hour nitrogen monoxide (NO) PCs and PECs at human health receptors, assessed against the EAL of 4,400 µg/m³.**

  The 100th percentile 1-hour mean NO PC and PEC for the Testing and Maintenance Scenario and the Outage Scenario are presented in Table 4. The maximum PEC occurs in the Outage Scenario at R3, which does not exceed the 1-hour mean NO EAL of 4,400 µg/m³. This data has been added to Section 4.2 Table 89 of Appendix 4 of the updated assessment in Appendix C.

Table 4: 100th Percentile NO_2 Concentration from Combined Testing and Maintenance Scenario and Outage Scenario.

Receptor	100th percentile NO for the Testing and Maintenance Scenario		100th percentile NO for the Outage Scenario	
	PC (µg/m³)	PEC (µg/m³)	PC (µg/m³)	PEC (µg/m³)
R1	56.3	78.4	2510.9	2533.0
R2	30.7	52.1	3007.3	3028.7
R3	31.6	53.7	3055.3	3077.4
R4	20.3	44.6	1535.6	1560.0
R5	28.8	48.8	2520.6	2540.6
R6	27.3	49.4	2570.0	2592.0
R7	29.3	50.7	2131.8	2153.2
R8	26.8	51.2	1528.3	1552.7
R9	29.1	50.1	2203.4	2224.5
R10	28.5	48.5	2443.3	2463.3
R11	23.9	43.9	2200.7	2220.7
R12	27.0	48.5	2665.4	2686.9
R13	23.4	47.7	1931.8	1956.1
R14	26.8	47.2	1644.2	1664.5
R15	29.0	50.5	2641.8	2663.3

Receptor	100th percentile NO for the Testing and Maintenance Scenario		100th percentile NO for the Outage Scenario	
	PC (µg/m^3)	PEC (µg/m^3)	PC (µg/m^3)	PEC (µg/m^3)
R16	22.2	42.5	1721.8	1742.1
R17	21.8	40.6	1980.8	1999.6
R18	24.5	44.5	2099.9	2119.9
R19	20.1	40.4	1732.8	1753.1
R20	26.2	46.2	1781.6	1801.7
R21	26.4	47.9	2167.7	2189.2
R22	21.9	42.9	1763.1	1784.1
R23	22.6	41.4	1801.0	1819.8
R24	20.1	41.6	1945.0	1966.5
R25	24.1	44.2	1615.6	1635.7
R26	18.7	39.1	1726.7	1747.0
R27	22.1	43.1	1667.2	1688.2
R28	23.6	44.6	1621.0	1642.0
R29	21.6	43.9	1642.1	1664.4
R30	16.7	41.7	1400.0	1425.0
R31	18.8	41.0	1546.8	1569.0
R32	18.0	38.3	1542.4	1562.7
R33	19.0	39.1	1446.4	1466.5
R34	16.0	34.8	1401.8	1420.6
R35	17.8	37.9	1394.8	1415.0
R36	15.2	36.0	1435.4	1456.1
R37	17.0	41.1	1294.4	1318.4
R38	16.5	37.5	1284.4	1305.4
R39	11.4	31.7	1116.6	1136.9
R40	15.3	36.0	1379.8	1400.5
R41	16.2	37.2	1232.8	1253.8
R42	16.2	37.8	1471.0	1492.7
R43	11.7	31.3	1068.7	1088.3
R44	15.3	34.1	1295.4	1314.2
R45	13.5	35.2	1317.6	1339.2
R46	13.9	34.6	1274.5	1295.2
R47	13.2	33.9	1227.9	1248.7
R48	9.6	27.9	994.9	1013.2
R49	11.6	32.0	1096.1	1116.5
R50	10.7	31.6	901.2	922.2
R51	11.8	32.2	1026.3	1046.6

Receptor	100th percentile NO for the Testing and Maintenance Scenario		100th percentile NO for the Outage Scenario	
	PC (µg/m³)	PEC (µg/m³)	PC (µg/m³)	PEC (µg/m³)
R52	10.0	32.0	926.6	948.6
R53	11.0	32.4	919.8	941.3
R54	9.9	30.7	1008.6	1029.3
R55	9.6	31.1	1008.5	1029.9
R56	8.3	29.4	794.1	815.2
R57	7.6	28.7	775.1	796.2
R58	7.4	31.9	758.2	782.7
R59	7.3	28.3	791.7	812.8
R60	6.6	27.9	707.6	728.9
R61	6.5	31.1	717.4	742.0

- **Please provide the NOx emission concentrations for the generators in mg/m³.**

  The mg/m³ NOx emissions for the main and house generators are included within the datasheets submitted as part of the application pack. However, due to limitations in the data provided, the g/BHP-hr emission were used when undertaking the dispersion modelling. The process for this is outlined within Appendix 2 of the Air Emissions Risk Assessment.

  NOx emissions data from the submitted generator specifications and new House Generator specification is summarised in Table 5 below. Not concentration data for the Substation and CIWB generators is not provided in the data sheets.

Table 5: NOx Emissions Concentration Data

Pollutant	NOx Emissions Data for Generators			
	House		Main	Substation&CIWB
	New	Modelled*	Modelled*	Modelled*
NO_x	2,775	3,414	2,270	Not Provided

* Note: the NOx concentrations presented in this table for the generator spec that were modelled were not used in the assessment. NOx concentrations, presented are for standby power, see data sheets for other power modes.

- **Please confirm orientation of stacks and whether or not they are impeded by caps and/or cowls.**

  The stacks are vertical and do not include caps or cowls.

- **Please provide a commissioning schedule for the generators.**

  The commissioning schedule for the generators is not available at this time. Once the design is finalised a commissioning schedule will be generated and can be made available. The

commissioning schedule will be available in advance of commissioning works related to the generators commencing.

Please re-submit an Air Quality Assessment following the Air emissions risk assessment for your environmental permit guidance (Air emissions risk assessment for your environmental permit - GOV.UK (www.gov.uk) with the above aspects included.

Appendix C includes the updated Air Quality Assessment

3) Form B3, Question 2 (Table 2) Point source emissions to air, water and land:

Table 2 (Emissions) in Form B3 does not contain all the emission points from the Installation.

Please re-submit Form B3 ensuring all emission points including emissions to air, water, sewer and land are included in Table 2 (Emissions). Please also indicate if the emissions to sewer are to surface water sewer or foul sewer – This will influence the labelling of the emission point site plan (see question 1 above). We need to reflect the surface water run-off. This has already been updated.

Please see enclosed updated form B3 in Appendix D. The form has been amended to confirm the two surface water emission points (W1 and W2). The permit application includes details on the emission to foul sewer associated with rainwater that collects in the generator stacks. Discussions with the Environment Agency have confirmed that this emission is trivial and therefore will not be a regulated emission point.

Document Control

Document Ref.	Rev.	Date	Authored by	Checked by	Approved by
EPR/GP3127LV/A001	1	28/11/2025	JS	JB	JS

Appendix A Updated Plan

Appendix B Updated House Generator Specification

Appendix C Updated AQ Assessment

Appendix D Updated Form B3