The Sizewell C Project

6.14 Environmental Statement Addendum
Volume 1: Environmental Statement Addendum Chapters
Chapter 8 Freight Management Facility

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Planning Act 2008
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CONTENTS

TABLES

None provided.

PLATES

None provided.

FIGURES

None provided.

APPENDICES

8 FREIGHT MANAGEMENT FACILITY

8.1 Introduction

8.1.1 This chapter of the **ES Addendum** provides an update to **Volume 8** of the **ES** (Doc Ref. 6.9) [APP-509 to APP-537]. The chapter presents the Additional Information prepared for the freight management facility site since the submission of the Application in May 2020.

8.1.2 The Additional Information of relevance to **Volume 8** of the **ES** (Doc Ref. 6.9) [APP-509 to APP-537] includes:

- refinements to the air quality modelling to account for new information published by Defra and updated strategic traffic modelling (refer to the **Transport Assessment Addendum** (Doc Ref. 8.5(A) Ad) for further information); and
- an archaeological evaluation report for the freight management facility site (refer to **Volume 3, Appendix 8.3.A** of this **ES Addendum**).

8.1.3 There are no proposed changes to the design of the proposed development at the freight management facility site and, as such, the description of the development remains as presented within **Chapter 2** of **Volume 8** of the **ES** (Doc Ref. 6.9) [APP-511 to APP-513].

8.1.4 However, the revised assessment for air quality has considered the proposed changes to the Heavy Goods Vehicles (HGV) movements, associated with **Change 1** (potential to increase in the frequency of freight train movements to facilitate bulk material imports by rail) and **Change 2** (an enhancement of the permanent beach landing facility and construction of a new, temporary beach landing facility) described further in **Chapter 2** of this **ES Addendum**. The revised transport and noise and vibration assessments, including the assessment of impacts on the roads adjacent to the freight management facility site, are presented in **Chapter 2** of this **ES Addendum**, in line with the structure of the **ES**.

8.1.5 Aside from the updated assessments for air quality and terrestrial historic environment, as described above, there are no changes to the remaining technical assessments of **Volume 8** of the **ES** (Doc Ref. 6.9) [APP-515, APP-516, APP-520 to APP-527, APP-531 to APP-537].

8.2 Air Quality

a) Introduction

8.2.1 This section provides an addendum to the air quality assessment at the freight management facility site with reference to the following documents submitted with the Application:

- **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517]; and
- **Volume 8, Chapter 5** of the **ES Figure 5.1** (Doc Ref. 6.9) [APP-519].

8.2.2 This section presents Additional Information that has been gathered since the Application was made, and an assessment of the potential air quality effects arising from the reduction in HGV movements as a result of the potential increase in rail movements (**Change 1**) and the proposed additional temporary BLF (**Change 2**).

8.2.3 The air quality assessment presented within this section considers the air quality impacts from assessment using the Additional Information presented below, and the air quality impacts associated with the relevant design changes.

8.2.4 This section is supported by the following appendices provided in **Volume 3** of this **ES Addendum**:

- **Volume 3, Appendix 8.2.A**, which presents the modelled air quality current and future year baselines in the air quality assessment; and
- **Volume 3, Appendix 2.7.C**, which presents the updated transport emissions assessment using the Additional Information and the assessment of transport emissions associated with the proposed changes.

b) Relevant Additional Information

8.2.5 Additional Information is presented in this chapter on further air quality transport emissions modelling that has been undertaken to include the following:

- Refined traffic representative estimates of the 24-hour Annual Average Daily Traffic (AADT) (refer to **Transport Assessment Addendum** for further information (Doc Ref. 8.5(A) Ad));
- Emissions Factors Toolkit (EFT) version 10.1 (Ref. 1);

- Defra's projected 2018-based Background Pollutant Concentration Maps (Ref. 2); and
- NO_x to NO_2 conversion tool v8.1 (Ref. 3).

c) Relevant changes

8.2.6 Relevant changes for the assessment of effects on air quality within the study area of the freight management facility site include the reduced HGV movements during construction of Sizewell C with the potential changes to increase rail movements (**Change 1**) and the proposed additional temporary BLF (**Change 2**), as described within **Chapter 2** of the **ES Addendum**.

d) Updated assessment – Additional Information

8.2.7 The traffic data for the Sizewell C Project has been updated with the refinements to the strategic traffic modelling as detailed in the **Transport Assessment Addendum** (Doc Ref. 8.5(A) Ad).

8.2.8 The refined traffic flows result in a change in modelled pollutant concentrations at receptors within the study area of the freight management facility site, from the results presented in **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517]. Furthermore, Defra have since published the updated EFT version 10.1 (Ref. 1), updated background pollutant concentration maps (Ref. 2), and an updated version of the NO_X to NO_2 conversion tool v8.1 (Ref. **Error! Reference s ource not found.**). Therefore, a revised air quality assessment of traffic emissions has been undertaken with the full results presented within **Volume 3, Appendix 2.7.C** of this **ES Addendum**. A summary of these results within the study area of the freight management facility site is included within this section.

8.2.9 The Additional Information does not change the legislation, policy and guidance, the methodology or other assessments for air quality assessment, as described in **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517], with the exception of the updates made to the transport emissions modelling to take into account the latest Defra EFT version 10.1 and the NO_X to NO_2 conversion tool v8.1.

d) i) Baseline

8.2.10 This section presents a description of the updated baseline environment characteristics within the site and the surrounding area. The site and receptors in the study area are presented in **Figure 5.1** of **Volume 8** in the **ES** (Doc Ref. 6.9) [APP-519].

d) i) a) Current baseline

8.2.11 NO_2 and particulate matter (PM_{10} and $PM_{2.5}$) 2018 background concentrations within the site are projected to be between 10.7 to 11.9µg/m^3 for NO_2, between 16.3 to 18.1µg/m^3 for PM_{10}, and between 10.0 to 10.8µg/m^3 for $PM_{2.5}$, according to the recently published Defra Background Concentration Maps (Ref. 2). The backgrounds for the current baseline are broadly in line with the background values set out within **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517].

8.2.12 The overall predicted baseline concentrations, including nearby road traffic contributions range from 11.8 to 18.8µg/m^3 for NO_2, 15.6 to 19.3µg/m^3 for PM_{10}, and 9.8 to 11.5µg/m^3 for $PM_{2.5}$, at sensitive receptors near the site. These values are broadly in line with the baseline assessment presented within **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517], albeit the updated baseline NO_2 values are slightly reduced (by up to 2.1 µg/m^3), PM_{10} values are slightly increased (by up to 0.7 µg/m^3), and $PM_{2.5}$ are the same or slightly lower (by up to 0.3 µg/m^3). Further details on the modelled 2018 baseline pollutant concentrations at receptors can be found in **Volume 3, Appendix 8.2.A** and **Volume 3, Appendix 2.7.C** of the **ES Addendum**.

d) i) b) Future Baseline

8.2.13 NO_2, PM_{10} and $PM_{2.5}$ 2023 background concentrations within the site are projected to be between 9.0 to 9.7µg/m^3 for NO_2, between 15.2 to 17.1µg/m^3 for PM_{10}, and between 9.1 to 9.9µg/m^3 for $PM_{2.5}$, a reduction in all three pollutants from the current baseline, according to the recently published Defra Background Concentration Maps (Ref. 2).

8.2.14 NO_2, PM_{10}, and $PM_{2.5}$ 2028 background concentrations within the site are projected to be between 8.0 to 8.4µg/m^3 for NO_2, between 14.9 to 16.7µg/m^3 for PM_{10}, and between 8.8 to 9.6µg/m^3 for $PM_{2.5}$, a reduction in all three pollutants from the current baseline (Ref. 2).

8.2.15 The backgrounds for the future baselines are broadly in line with the background values set out within **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517].

8.2.16 The future baseline pollutant concentrations at nearby sensitive receptors in 2023 range from 9.3 to 13.8µg/m^3 for NO_2, 14.5 to 18.2µg/m^3 for PM_{10}, and 8.9 to 10.6µg/m^3 for $PM_{2.5}$. The future baseline pollutant concentrations at nearby sensitive receptors in 2028 range from 8.0 to 10.8µg/m^3 for NO_2, 14.2 to 17.9µg/m^3 for PM_{10}, and 8.6 to 10.3µg/m^3 for $PM_{2.5}$. These values are broadly in line with the baseline assessment presented within **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517], albeit the updated baseline NO_2 values are slightly reduced (by up

to 2.3µg/m^3), PM_{10} values are slightly increased (by up to 0.5 µg/m^3) and $PM_{2.5}$ are the same or slightly reduced (by up to 0.4 µg/m^3). Further details of modelled pollutant concentrations for the years 2023 and 2028 can be found in **Volume 3, Appendix 8.2.A** and **Volume 3, Appendix 2.7.C** of the **ES Addendum**.

d) ii) Assessment

8.2.17 Details on modelled pollutant concentrations for the year 2023 (assumed peak year of construction of the freight management facility) and 2028 (assumed peak year of operation of the freight management facility) can be found in **Volume 3, Appendix 2.7.C** of the **ES Addendum**.

8.2.18 The updated modelling using the Additional Information (detailed in **section 8.2 b**) does not change the overall assessment of effects on air quality resulting from construction traffic related to the Sizewell C Project for either of the assessment years. The magnitude of change in NO_2, PM_{10}, and $PM_{2.5}$ concentrations would remain imperceptible across all modelled receptors and scenarios, resulting in a negligible effect which is **not significant**, as described in **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517]. No further mitigation is required.

e) Updated assessment – reduction in HGV movements (Changes 1 and 2)

8.2.19 The updated modelling of transport emissions with the reduced HGV movements associated with the potential changes to increase rail movements (**Change 1**) and the additional temporary BLF (**Change 2**) is presented in **Volume 3, Appendix 2.7.C** to this **ES Addendum**.

8.2.20 The proposed changes do not affect the existing and future air quality baseline, as described in **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517]. The magnitude of change in NO_2, PM_{10}, and $PM_{2.5}$ concentrations during 2028 average day or busiest day would remain imperceptible across all modelled receptors, resulting in a negligible effect which is **not significant**, as described in **Volume 8, Chapter 5** of the **ES** (Doc Ref. 6.9) [APP-517]. No further mitigation is required.

8.3 Terrestrial Historic Environment

a) Introduction

8.3.1 This section provides an addendum to the terrestrial historic environment assessment at the freight management facility site with reference to the following documents submitted with the Application:

- **Volume 8, Chapter 9** of the **ES** (Doc Ref. 6.9) [APP-528]; and
- **Volume 8, Appendices 9A - 9C** of the **ES** (Doc Ref. 6.9) [APP-529].

8.3.2 This section presents Additional Information that has been gathered since the Application was made and is summarised in sections below.

8.3.3 This section is supported by the following appendix provided in **Volume 3** of this **ES Addendum**:

- **Volume 3, Appendix 8.3.A**, which presents an update to the Archaeological Evaluation Report for the freight management facility site.

b) Relevant Additional Information

8.3.4 Relevant Additional Information for the assessment of effects on terrestrial historic environment at the freight management facility comprises the Freight Management Site Archaeological Evaluation Report (refer to **Volume 3, Appendix 8.3.A** of this **ES Addendum**).

c) Updated assessment – Additional Information

8.3.5 The Archaeological Evaluation Report (refer to **Volume 3, Appendix 8.3.A** of this **ES Addendum**) provides more detail on the findings of the evaluation trenching investigations at the freight management facility site, and supersedes the interim fieldwork summary provided in **Volume 8, Appendix 9C** of the **ES** (Doc Ref 6.9) [APP-529].

8.3.6 The Archaeological Evaluation Report did not identify any new constraints beyond those reported in the interim fieldwork summary provided in **Volume 8, Appendix 9C** of the **ES** (Doc Ref 6.9) [APP-529].

8.3.7 As such, no changes to the assessment presented within **Volume 8, Chapter 9** of the **ES** (Doc Ref 6.9) [APP-529] are required.

REFERENCES

1. Department for Environment Food and Rural Affairs. (2020). Emissions Factors Toolkit (EFT) version 10.1. Available at: https://laqm.defra.gov.uk/review-and-assessment/tools/emissions-factors-toolkit.html. (Accessed November 2020).

2. Department for Environment Food and Rural Affairs. (2020). Background Pollutant Concentration Maps. Available at: https://uk-air.defra.gov.uk/data/laqm-background-home. (Accessed October 2020).

3. Department for Environment Food and Rural Affairs. (2020). NO_x to NO_2 Calculator version 8.1. Available at: https://laqm.defra.gov.uk/review-and-assessment/tools/background-maps.html#NOxNO2calc. (Accessed October 2020).