



The Sizewell C Project

9.68 Draft Noise Monitoring and Management Plan - Main Development Site

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CONTENTS

1	INTRODUCTION.....	1
1.2	Purpose of the NMMP	1
1.3	Principles of this plan	2
1.4	Compliance	2
2	ROLES AND RESPONSIBILITIES.....	4
2.2	SZC Co. Site Environmental Lead	4
2.3	SZC Co. Noise Specialist.....	5
2.4	Contractor's Site Manager.....	6
2.5	Contractor's Site Environmental Engineer.....	6
2.6	Contractor's Foreman	7
3	LIAISON.....	8
4	NOISE AND VIBRATION THRESHOLDS.....	9
4.1	Introduction	9
4.2	Noise Thresholds	9
4.3	Vibration Thresholds	9
4.4	Bespoke Mitigation Plans.....	10
4.5	Dispute Resolution Process	11
5	SITE-SPECIFIC CONTROLS.....	13
5.1	Working Hours	13
5.2	Noisy Work Controls	13
5.3	Physical Controls	13
5.4	General Controls	14
6	NOISE AND VIBRATION MONITORING	17
6.2	Measurement Locations.....	17
6.3	Measurement Equipment	18
6.4	Meteorological Monitoring Equipment.....	18
6.5	Calibration Requirements.....	19

6.6	Measurement Periods	19
6.7	Baseline Measurements.....	20
6.8	Reporting Requirements	21
7	COMPLAINTS HANDLING PROCESS	22
	REFERENCES.....	23

TABLES

Table 4.1: Noise thresholds for construction works.....	9
Table 4.2: Vibration thresholds for construction works	9

APPENDICES

APPENDIX A: BARRIER LOCATIONS	24
APPENDIX B: MONITORING LOCATIONS.....	26
APPENDIX C: BASELINE NOISE LEVELS	28

1 INTRODUCTION

- 1.1.1 SZC Co. is proposing to build a new nuclear power station at Sizewell in East Suffolk, known as Sizewell C. Located to the north of the existing Sizewell B power station, the Sizewell C site is located on the Suffolk coast, approximately halfway between Felixstowe and Lowestoft; to the north-east of the town of Leiston.
- 1.1.2 Consent to construct the development is sought through a Development Consent Order (DCO) as a Nationally Significant Infrastructure Project under the Planning Act 2008.
- 1.1.3 The **Code of Construction Practice (CoCP)** (Doc Ref. 8.11(D)) is the mechanism through which SZC Co. will ensure that the construction works are undertaken in accordance with all relevant legislative controls, construction health, safety and environmental standards and other relevant best practice methods.
- 1.1.4 The aim of the **CoCP** (Doc Ref. 8.11(D)) is to provide a clear and consistent approach to the control of Sizewell C construction activities on the main development site and associated development sites so as to maintain satisfactory levels of environmental protection, and take all reasonable steps to mitigate and minimise disturbance from construction activities. The CoCP also seeks to control construction works to minimise potential significant environmental effects
- 1.1.5 This Draft **Noise Monitoring and Management Plan (NMMP)** has been submitted to the Examination to set out how the details anticipated by paragraph 3.1.3 of the **CoCP** Part B (the main development site) (Doc Ref. 8.11(D)) would be discharged. As set out in the CoCP Part B, the final NMMP for the MDS will be submitted to ESC for approval. Construction works will not be commenced until the NMMP has been approved by ESC and the construction works will then be undertaken in accordance the approved NMMP. A separate NMMP will be prepared and submitted to ESC for approval for each of the Associated Development Sites, pursuant to paragraph 3.1.3 of the CoCP Part C.

1.2 Purpose of the NMMP

- 1.2.1 The NMMP will provide a framework for monitoring and managing noise at the main development site in accordance with this Draft Noise Monitoring and Management Plan.
- 1.2.2 The NMMP will be subject to periodic review and update so that it remains current and relevant to the works being undertaken and treated as a live

document. The NMMP and any updates will be subject to agreement with East Suffolk Council.

- 1.2.3 The NMMP relates to the monitoring and management of construction works within the main development site, i.e. the monitoring and management of those activities under the control of the contractor, and between source and receptor, i.e. the noise or vibration pathway from the sources to affected properties. The NMMP does not relate to any control at the receptor.

1.3 Principles of this plan

- 1.3.1 The NMMP will act as a framework to guide the control, monitoring and management of noise and vibration from the construction works.

- 1.3.2 An updated noise assessment of the construction works will be undertaken as part of the implementation of the **Noise Mitigation Scheme** (Doc Ref. 6.3 11H(C)), which is secured by the **Deed of Obligation** (Doc Ref. 8.17(F)). This work will include a review of the NMMP and will confirm if updates to the NMMP are required. Any amendments to the NMMP will be submitted to ESC for approval, as set out in paragraph 1.2.2 above, as the works progress.

- 1.3.3 The monitoring and update of the NMMP to reflect the above will ensure:
- mitigation is targeted appropriately throughout the construction period;
 - facilitate identification of 'noisy' works, which will in turn facilitate notification of local residents and other steps required by the CoCP;
 - provide a feedback mechanism for ongoing validation of construction noise and vibration predictions.

1.4 Compliance

- 1.4.1 SZC Co. will require all contractors to comply with the provisions in the NMMP throughout all the construction activities on the main development site.

- 1.4.2 The NMMP incorporates a range of noise mitigation measures that reflect best practice techniques, to be employed during the undertaking of construction activities; to design out the risk of emissions of noise where possible; and take all reasonable steps to mitigate and minimise noise and vibration where elimination of risk is not feasible.

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- 1.4.3 Once contractors are appointed, the NMMP will be reviewed in consultation with them to identify further opportunities for noise control.

2 ROLES AND RESPONSIBILITIES

2.1.1 It is recognised that all those participating in the delivery of construction activities at all of the SZC sites have a role to play in the minimisation and mitigation of potential noise and vibration impacts.

2.1.2 It is also recognised that certain key roles within construction teams will play a more active role in delivering the requirements of the NMMP.

2.1.3 This section sets out the defined roles and duties relating to the implementation of the NMMP and to the minimisation of noise and vibration impacts from construction work activities.

2.2 SZC Co. Site Environmental Lead

2.2.1 This is expected to be under the direct employment of SZC Co. Ltd. The role will include responsibility for:

- the implementation of the SZC Co. Environmental Management System, including the provision of environmental training;
- co-ordination between the client, contractors and external stakeholders as appropriate;
- approving contractor-submitted Construction Environmental Management Plans;
- approving the environmental parts of contractor-submitted works method statements and liaison with relevant authorities in relation to those aspects of the submissions;
- undertaking investigations in relation to noise level exceedances and to investigate any complaints received by the project in relation to noise and vibration issues;
- environmental monitoring and reporting, including collation and analysis of data to demonstrate compliance with the construction noise thresholds;
- carrying out the measures outlined within the NMMP in relation to construction noise threshold exceedances, including liaison with the contractor; and

- conducting site inspections producing reports and communications with relevant parties within SZC Co., the contractor's project management team and internal / external stakeholders as required.

2.3 SZC Co. Noise Specialist

2.3.1 This role will include a noise specialist to:

- advise SZC Co. and construction teams on how to meet legal and contractual noise requirements;
- review and develop the NMMP as part of the CoCP for the works, as required;
- undertake the noise assessments required under the **Noise Mitigation Scheme** (Doc Ref. 6.3 11H(C)), which will feed into the NMMP process;
- train nominated staff to undertake basic monitoring tasks correctly, e.g. downloading data and undertaking initial checks of results for compliance with requirements;
- provide analysis and interpretation of noise monitoring results for compliance with the requirements and advise SZC Co. and the contractor's construction teams on action required and follow up;
- provide specialist noise management advice to the construction teams as required;
- liaise with local authorities as necessary and in conjunction with SZC Co. provide monitoring results in agreed timescales;
- be responsible for noise assessments of temporary works and equipment to determine their design and location and any necessary mitigation works required to maintain noise levels below the threshold levels; and
- assist and support the SZC Co. Site Environmental Lead in the preparation of reports, and assist to resolve any problems arising from noise issues.

2.3.2 The Noise Specialist is expected to have the following experience and qualifications:

- appropriate experience of dealing with noise on construction projects;

- good knowledge and practical experience of legal requirements and how to comply with them;
- experience of liaison with stakeholders including statutory bodies such as local authorities; and
- be an Associate or Full Member of the Institute of Acoustics (or equivalent competent body).

2.4 Contractor's Site Manager

2.4.1 This will be a full-time role in the employment of the appointed lead contractor. In so far as it relates to noise, the role will include responsibility for:

- all works on site, within the scope of their contract;
- preparing and submission of SZC Co. method statements and risk assessments, and liaison with Noise Specialist on noise assessments;
- implementing the NMMP and for liaison and communication with sub-contractors; and
- reviewing Construction Environmental Management Plans (CEMP) as far as they relate to compliance with the NMMP and noise measures set out within the **CoCP** (Doc Ref. 8.11(D)).

2.5 Contractor's Site Environmental Engineer

2.5.1 This will be a role in the employment of the appointed lead contractor. It will be for the contractor to determine whether this is a full- or part-time role. The role will include responsibility for:

- planning works on site;
- instructing the foreman and briefing site workers;
- daily site inspections in relation to the implementation of noise mitigation measures and for recording inspections within the site logs;
- technical environmental input into the Method Statements submitted to SZC Co. for approval, where required; and
- providing specific training in relation to noise management to all levels of contractor's staff including inductions, subject-specific training and tool box training where appropriate.

2.6 Contractor's Foreman

2.6.1 This will be a full-time role in the employment of the appointed lead contractor. The role will include responsibility for:

- directing activities on site;
- implementing the measures outlined in the NMMP and defined in the works method statement and for undertaking daily inspections to demonstrate compliance; and
- undertaking inspections of work sites and the implementation of remedial measures in the event of a noise level exceedance being attributed to their works.

3 LIAISON

3.1.1 Regular meetings will be held between representatives of SZC Co., ESC and the contractor. Unless agreed otherwise between the parties, the meetings will be held monthly for the first year of the project post-consent, and every two months thereafter.

3.1.2 It is expected that the meetings will cover the following topics:

- upcoming works;
- updates to the noise assessments;
- additional mitigation proposals;
- need for community liaison and plan for same;
- any complaints in period and resolutions.

3.1.3 The scope of the meetings can be adapted according to need, with agreement of all parties.

4 NOISE AND VIBRATION THRESHOLDS

4.1 Introduction

- 4.1.1 This section sets out the noise and vibration thresholds that will apply to the main development site, and describes the process for agreeing alternative thresholds with ESC, should they be required.

4.2 Noise Thresholds

- 4.2.1 **Table 4.1** sets out the construction noise thresholds for the site.

Table 4.1: Noise thresholds for construction works

Period	Threshold	Parameter
Any day 07:00 to 23:00	60	L _{Aeq, T} , dB, free field.
Night 23:00 to 07:00	45	
Night 23:00 to 07:00	65	L _{Amax} , dB, façade.

Notes: Time period T in this table refers to the period in question: day (16 hours) or night (8 hours). Thresholds apply at residential receptors

- 4.2.2 The Contractor shall use best practicable means (as defined by Section 72 of the Control of Pollution Act 1974) to comply with these noise thresholds at all times.
- 4.2.3 Other representative receptors may be used to calculate noise levels at relevant residential receptors, where this has been agreed with ESC, including the relevant equivalent thresholds that would be used. This would allow for instances where monitoring at the relevant residential receptor was not practicable and that alternative locations, such as within SZC Co. land, could provide a suitable proxy to measure noise thresholds.
- 4.2.4 The noise thresholds apply to noise from SZC Co.'s construction activities at the main development site only; the thresholds do not apply to existing or extraneous sources.

4.3 Vibration Thresholds

- 4.3.1 **Table 4.2** sets out the construction vibration thresholds for the site.

Table 4.2: Vibration thresholds for construction works

Period	Threshold	Parameter
Any time	1.0	PPV mm/s

Notes: Thresholds are external and apply at residential receptors

- 4.3.2 The Contractor shall use best practicable means to comply with these vibration thresholds at all times.

4.4 Bespoke Mitigation Plans

- 4.4.1 Where it is anticipated that the construction works will exceed free-field noise levels of either 55dB $L_{Aeq,16hrs}$ (daytime) or 45dB $L_{Aeq,8hrs}$ (night-time), or the vibration thresholds stated in **Table 4.2**, despite the use of best practicable means, a bespoke mitigation plan will be submitted to ESC for approval.
- 4.4.2 Details of works likely to require a bespoke mitigation plan and a draft of the plan shall be provided to ESC at least 28 days prior to the start of the works, to include proposed method statements, likely noise or vibration levels at the closest sensitive receptors, proposed mitigation, and a scheme for notifying local residents. The purpose will be to agree measures to reduce noise as far as reasonably practical for particularly noisy activities. If appropriate, the bespoke mitigation plan can include revised noise thresholds.
- 4.4.3 As the Bespoke Mitigation Plans will be agreed, monitored and enforced and their purpose will be to determine the best practicable means of delivering the construction activity, it will not normally be appropriate to include finite noise limits in the plans. Nevertheless, the parties recognise that ESC must have the ability to monitor the effect of the work and require adjustments to working practices in the event that adverse effects exceed those anticipated. For this purpose, indicative limits may be appropriate and it is intended that close working between the parties will enable corrections to be made to working practices to ensure that the objectives of the Bespoke Mitigation Plan are achieved.
- 4.4.4 Each Bespoke Mitigation Plan would be approved pursuant to Requirement 2 of Schedule 2 of the **Draft DCO** (Doc Ref. 3.1(G)). Any breach or non-compliance with measures set out in the Bespoke Mitigation Plan would therefore be enforceable under the DCO. The parties also recognise that DCO does not remove ESC's powers under section 60 of the Control of Pollution Act 1974.
- 4.4.5 The details of the works and proposed controls will be submitted to and approved by ESC before the specified activity can commence. The measures will be implemented as approved for the duration of those activities. Where ESC does not approve the submitted Bespoke Mitigation Plan within a period of 28 days, SZC Co. can elect to instigate the dispute resolution process set out in Section 4.5.

4.4.6 The number and duration of occasions on which activities subject to bespoke mitigation plans are carried out shall be limited to those approved by ESC.

4.5 Dispute Resolution Process

4.5.9 In the event that SZC Co. and ESC cannot agree the terms of a Bespoke Mitigation Plan, it will be open to SZC Co. to either:

- a) refer the disagreement to a Governance Group set up under the Deed of Obligation to seek guidance; or
- b) activate the formal dispute resolution process set out in this Section 4.5.

4.5.10 ESC shall be under no obligation to agree the terms of a submitted Bespoke Mitigation Plan (so long as it is acting reasonably) and none of the Governance Groups established in the **Deed of Obligation** (Doc Ref. 8.17(F)) are authorised to determine a dispute concerning a Bespoke Mitigation Plan. Nevertheless, SZC Co. would be entitled to seek advice from one of these Governance Groups to seek advice and assistance in reaching agreement with ESC. Depending on the nature of the disagreement and the availability of a relevant Governance Group, for instance, SZC Co. could seek advice from the Planning Group, the Environment Review Group or the Delivery Steering Group.

4.5.11 In the event that SZC Co. considers that formal dispute resolution is necessary, it may send ESC a notice stating that it intends to refer the dispute to an expert for determination in accordance with the process set out below:

- a. SZC Co shall request that the President of the Institute of Acoustics nominate a suitably qualified expert (the Expert) to act as an expert and not as an arbitrator. If that Expert is or becomes unable or unwilling to act, then SZC Co shall request that the President of the Institute of Acoustics nominate a suitable replacement Expert;
- b. SZC Co shall meet all reasonable and proper costs involved in the appointment of the Expert and the determination of the dispute by the Expert following the receipt by SZC Co of invoices from the Expert and ESC;
- c. Following the appointment of the Expert, SZC Co. shall submit to the Expert in writing details of the proposed Bespoke Mitigation Plan and SZC Co.'s written justification for the terms of that Plan ('the dispute'). SZC Co. shall provide a copy of the dispute to ESC;

- d. No later than providing the dispute to the Expert in accordance with c), SZC Co. shall ensure that the Expert has access to the SZC Environmental Statement (in its final form), the **CoCP** (Doc Ref. 8.11(D)), the **NMS** (Doc Ref. 6.3 11H(C)), the relevant **NMMP** and all relevant noise monitoring data that may be relevant to the dispute;
- e. As soon as practical and in any event within 28 days of receipt of the dispute, the Expert shall invite ESC to submit its response to the dispute. Any response from ESC must be submitted within 28 days of receipt of that invitation from the Council, be in writing, and copied to SZC Co;
- f. Exceptionally, the Expert will be entitled to send either party a written request for further information if necessary to assist his or her determination (with a copy of the request sent to the other party) and to set a reasonable period (of no longer than 28 days) for both parties to respond but, subject to that exception, the Expert will be required to determine the dispute within 28 days of ESC's response;
- g. The determination by the Expert shall be in writing, and take the form of a final form of the Bespoke Mitigation Plan and shall be final and binding on both parties (in the absence of manifest error). The Expert shall give reasons for its determination.
- h. In reaching his or her determination, the Expert shall:
 - a. be guided by best professional practice, by the terms of documents submitted under item d) above, and by the policy requirements of NPS EN-1 or any successor document; and
 - b. have regard to any representations and evidence before them.

5 SITE-SPECIFIC CONTROLS

5.1 Working Hours

- 5.1.1 The works at the main development site will run 24 hours a day, seven days a week.

5.2 Noisy Work Controls

- 5.2.1 Any periods where the thresholds set out in **Tables 4.1 and 4.2** are likely to be exceeded will be considered to constitute ‘noisy’ works and the following actions from the **CoCP** (Doc Ref. 8.11(D)) will be implemented as appropriate, to be documented in any agreed Bespoke Mitigation Plan:

- staggering or restricting certain activities to less-sensitive periods (CoCP Part B Table 3.1);
- installing temporary screens as required to provide additional screening attenuation and to protect sensitive receptors (CoCP Part B paragraph 3.3.2);
- notifying local communities of potentially noisy or disruptive works (CoCP Part B paragraph 3.3.6 and paragraph 3.3.22).

5.3 Physical Controls

- 5.3.1 The following barriers will be erected at the main development site as primary mitigation:

- Barrier #4 (B4) – 5m high acoustic fence;
- Barrier #6 (B6) – 3m high earth bund;
- Barrier #7 (B7) – 3m high earth bund with a 2m high acoustic fence on top of the ridge (5m total height).

- 5.3.2 The following barriers were identified as potential additional mitigation in the ES (paragraph 11.7.7 of **Volume 2, Chapter 11** of the **ES** [APP-202], updated by the ES Addendum [AS-181 and AS-204]), and the need for these barriers, and their construction, will be subject to confirmation as part of the refreshed assessments that inform the **NMS** (Doc Ref. 6.3 11H(C)) and this **NMMP**:

- Barrier #1 (B1) – 5m above ground;

- Barrier #2 (B2) – 3m above ground;
- Barrier #3 (B3) – 3m above ground;
- Barrier #5 (B5) – 3m above ground; and
- Barrier #8 (B8) – 5m above ground.

5.3.3 These barriers are all shown in **Volume 2, Chapter 11, Figure 11** of the **ES** [\[APP-211\]](#), which is included in **Appendix A** of this document.

5.4 General Controls

5.4.1 The following general controls will be implemented:

- *No Amplified Sound* – no amplified sound shall be generated at any time within the site or at any time in the course of carrying out any phase of works for the development. This constraint shall not apply in the event of emergencies or emergency drills to the extent necessary to deal with an emergency or drill. This constraint will also not apply to the amplified noise generated by construction plant as a reversing alarm if for health and safety reasons their use is specified on site.
- *Reversing Alarms* - all mobile construction plant will be fitted with non-tonal reversing alarms to minimise the annoyance of noise generated from construction plant on local residents. The requirement for low noise reversing alarms will be placed on all contractors undertaking work activities on the site.
- *Site Area* – All construction work activities will be undertaken within the designated operational site boundaries; including areas designed to accommodate stockpiles and haul routes.
- *Training* – All site personnel will receive training appropriate to the nature of their roles and responsibility; the training will include specific information in relation to noise management. All staff will receive induction training that will incorporate environmental awareness training and specific training in relation to noise; if their work activities are assessed as being particularly noise emission prone. On site Tool Box training will enable site workers to understand how their actions will interact with the environment and potentially impact upon sensitive receptors near to their work areas.

5.4.2 In respect of mitigation measures, all SZC Co. contractors working on the SZC site will be required to follow standard good construction practice as

outlined in BS 5228-1: 2009+A1: 2014 [Ref 1] and BS 5288-2: 2009+A1: 2014 [Ref 2]. This will include the following mitigation measures, where relevant:

- electrical items of plant will be used instead of diesel plant where possible particularly in sensitive locations;
- plant will be started up sequentially rather than all together;
- internal haul roads will be well maintained and avoid steep gradients;
- loading/unloading activities will be located away from residential properties and shielded from those properties where practicable;
- drop heights of materials will be minimised;
- continuous noisy plant will be housed in acoustic enclosures;
- effective exhaust silencing and plant muffling equipment will be fitted and maintained in good working order;
- each item of plant used will be carefully selected so as to comply with the noise limits quoted in the relevant European Commission Directive 2000/14/EC/United Kingdom Statutory Instrument (SI) 2001/1701 [Ref 3];
- consideration will be given to the recommendations set out in Annex B of Part 1 of BS 5228 noise sources, remedies and their effectiveness;
- equipment will be well-maintained and where possible will be used in the mode of operation that minimises noise;
- plant and equipment will be shut down when not in use;
- semi-static equipment will be sited and orientated as far as is reasonably practicable away from occupied buildings and, where feasible, will be fitted with suitable enclosures;
- mobile construction plant will be located, away from adjacent occupied buildings or as close as possible to noise barriers or site hoardings to provide additional screening from sensitive noise receptors;
- materials will be handled in a manner that minimises generation of noise;

- vehicles will not wait or queue on the public highway with engines running;
- all appropriate SZC Co. staff and contractors personnel will be instructed on Best Practicable Means (BPM) measures to reduce noise as part of their induction training, prior to commencing work activities;
- noisy activities will be staggered in time and space where feasible;
- only designated lorry routes will be used to and from the site;
- only designated internal haul routes will be used by construction plant in undertaking movement across the site;
- site layout shall be designed to minimise the requirements for reversing; and
- as set out in paragraph 5.2.1, 'Noisy Works' will be screened as necessary using temporary acoustic screens to attenuate the noise levels produced.

5.4.3 SZC Co. will require its contractors to prepare Construction Environment Management Plans (CEMPs) for its approval. These plans will demonstrate to SZC Co. how the specific works will be carried out in accordance with all relevant legislation and guidance: including the relevant Level 1 and Level 2 documents (most notably the **CoCP** (Doc Ref. 8.11(D)), **Overarching Archaeological Written Scheme of Investigation** [[REP3-022](#)], **TEMMP** [[REP5-088](#)] and the **Construction Method Statement** (Doc Ref. 6.3 3D(B))).

5.4.4 Contractors will be required to implement the mitigation measures outlined above where appropriate to the location and scope of their works, as part of their CEMPs.

5.4.5 Copies of the CEMPs will be provided to ESC.

6 NOISE AND VIBRATION MONITORING

6.1.1 Noise and vibration monitoring will be carried out throughout the SZC construction works, to determine compliance with the target noise levels set out in the **NMMP**.

6.1.2 This section of the **NMMP** sets out the proposed approach to that monitoring.

6.1.3 The thresholds identified in **Tables 4.1 and 4.2** apply to noise or vibration from SZC Co.'s construction works only. Where required, steps shall be taken to exclude non-construction sources from any measurements.

6.1.4 Any 1 hour measurements that exceed the numerical noise thresholds in **Table 4.1** for the appropriate period of the day or night shall be taken as an indication that the overall thresholds may be exceeded unless corrective action is taken.

6.2 Measurement Locations

6.2.1 The measurement locations have been selected to be representative of noise-sensitive receptors close to the construction works.

6.2.2 Monitoring locations are shown in Appendix B and are as follows, including the receptor reference numbers from **Volume 2, Chapter 11** of the **ES [APP-202]** updated by the ES Addendum [[AS-181](#) and [AS-204](#)]:

- **Position 1:** Abbey Cottages (Receptor 1)
- **Position 2:** Abbey Farm (Receptor 2)
- **Position 3:** Abbey Road, Leiston (adjacent 99-105) (Receptor 3)
- **Position 4:** Crown Lodge (Receptor 7)
- **Position 5:** Keepers Cottage (Receptor 11)
- **Position 6:** King George's Ave (Receptor 12)
- **Position 7:** Pro Corda Music School, Leiston Abbey (Receptor 13)
- **Position 8:** Lover's Lane / Sandy Lane junction (Receptor 14)
- **Position 9:** Old Abbey Care home (Receptor 15)
- **Position 10:** Planation Cottages (Receptor 16)

- **Position 11:** Potters Farm (Receptor 17)
- **Position 12:** Round House (Receptor 20)
- **Position 13:** The Studio (Receptor 23)
- **Position 14:** Valley Road (Receptors 24/24)
- **Position 15:** Aldhurst Farm (No ES receptor reference)
- **Position 16:** Ash Wood Cottages (Receptor 4)

6.2.3 It shall be acceptable to monitor at a representative sample of the identified positions, and assign the measured noise levels to nearby or adjacent positions. Justification for any variations shall be submitted and approved by ESC.

6.2.4 Other locations may be acceptable, subject to agreement with ESC.

6.3 Measurement Equipment

6.3.1 All noise monitoring systems shall meet the following requirements:

- Type 1/Class 1 sound level meter, complying with BS EN 61672-1 and BS EN 61672-2 [Ref 4];
- Type 1/Class 1 field calibrator, complying with BS EN IEC 60942:2018 [Ref 5].

6.3.2 An effective windshield shall be used throughout to minimise turbulence at the microphone.

6.3.3 All vibration monitoring systems shall meet the requirements set out in BS 5228-2: 2009+A1: 2014.

6.4 Meteorological Monitoring Equipment

6.4.1 Meteorological data shall be gathered during any noise measurements. As a minimum, the following information shall be gathered:

- wind speed and direction;
- precipitation;
- fog;

- wet ground;
- frozen ground or snow cover;
- temperature;
- cloud cover; and
- presence of conditions likely to lead to temperature inversion (e.g. calm nights with little cloud cover).

6.4.2 Hand-held anemometers are acceptable to periodically gather wind speed data for attended measurements. Where unattended measurements are undertaken, either a remote meteorological station shall be used, or a suitable third party source of local meteorological data identified.

6.5 Calibration Requirements

6.5.1 All sound level meters shall have been laboratory-calibrated to a traceable standard within a two year period prior to the end of the measurements. All field calibrators shall have been similarly calibrated within a one year period prior to the completion of the measurements, or within a two year period prior to the completion of the measurements but be subject to a cross-check every other year. Any such cross-checks shall be documented.

6.5.2 Calibration certificates for all noise monitoring equipment shall be retained on file and made available upon request.

6.5.3 The on-site field calibration of the sound level meters shall be checked immediately prior to the start of any measurements and after any measurements, using acoustic calibrators. Where appropriate, intermediate checks shall be carried out of the meter's calibration. For long-term or permanent monitoring locations, the periodic calibration shall be at least every six months. All calibration checks shall be reported, and any drifts stated.

6.5.4 Should the calibration of a meter drift by more than 1dB for an unattended measurement over several days, or by more than 0.5dB for an attended measurement, the data gathered shall be reported but not used in any subsequent assessment.

6.6 Measurement Periods

6.6.1 Measurements shall be undertaken during both weekdays and weekends, and shall cover the daytime (07:00 to 23:00 hours) and night-time (23:00 to 07:00 hours) periods as necessary.

- 6.6.2 Measurements will include a combination of long-term, semi-permanent monitoring at some positions, and short duration, attended monitoring at others. The proposed combination of monitoring duration and location shall be agreed with ESC.

6.7 Baseline Measurements

- 6.7.1 Baseline measurements were undertaken as part of the Environmental Impact Assessment. These are contained in **Appendix C** of this document.
- 6.7.2 Further baseline measurements shall be undertaken in advance of the start of any works and reported to ESC. Any baseline measurements undertaken after the works have started should, as far as is possible, be free from the influence of SZC Co. construction works and should capture the existing level of ambient noise at each location.
- 6.7.3 The purpose of further baseline monitoring is to quantify non-construction noise levels at any given location to facilitate the calculation of construction noise levels where monitoring includes a combination of both construction noise and non-construction noise.
- 6.7.4 Any update to the **NMMP** will include any relevant or necessary updates to the baseline noise survey data, which will take account of changes in the noise climate occur, where these changes do not result from construction activities at SZC.
- 6.7.5 The duration of further baseline measurements may vary according to a number of factors, including but not limited to, the security of a given location, access constraints, weather, and the presence of local extraneous noise sources, such as local atypical activities, e.g. lawn mowers. Regard shall be had of the sea state during any baseline measurements influenced by noise from the sea.
- 6.7.6 Where possible, baseline measurements shall be conducted over a minimum 24 to 48 hour period, at a secure location, using remote, automated equipment. For locations where it is not possible to secure a meter for an extended period, for example where there are access or security constraints, measurements shall be undertaken over shortened periods, as appropriate.
- 6.7.7 Further baseline measurements shall be gathered across daytime (07:00 to 23:00 hours) and night-time (23:00 to 07:00 hours) periods on a weekday and weekend (Saturday and Sunday).
- 6.7.8 Where baseline data gathered at one location is considered representative of another location, this shall be made clear.

6.8 Reporting Requirements

6.8.1 The following information shall be reported for all measurements:

- a) the appropriate measured values, e.g. $L_{Aeq,T}$, L_{Amax} , PPV, together with details of the appropriate time periods;
- b) details of the instrumentation and measurement methods used, including details of any sampling techniques, position of microphone(s) in relation to the site and system calibration data;
- c) any factors that might have adversely affected the reliability or accuracy of the measurements;
- d) plans of the site and neighbourhood showing the position of plant, associated buildings and notes of site activities during monitoring period(s);
- e) notes on weather conditions, including where relevant, wind speed/direction, temperature, presence of precipitation, etc.;
- f) time, date and name of person carrying out the measurement.
- g) statement of compliance with the identified maximum appropriate sound level for that location.

6.8.2 Survey reports to be submitted to ESC within 28 days of completion of that particular element of monitoring, unless agreed otherwise.

7 COMPLAINTS HANDLING PROCESS

- 7.1.1 Section 3 of the CoCP Part A sets out the proposed communication, community and stakeholder engagement arrangements, including a complaints handling procedure, that will be applied throughout the construction period.

REFERENCES

1. British Standard BS5228-1: 2009+A1: 2014 Code of Practice for noise and vibration control at open construction sites – Noise
2. British Standard BS5228-2: 2009+A1: 2014 Code of Practice for noise and vibration control at open construction sites – Vibration
3. European Commission Directive 2000/14/EC/United Kingdom Statutory Instrument (SI) 2001/1701
4. BS EN 61672-1:2013 Electroacoustics. Sound level meters – Specifications and BS EN 61672-2: 2013+A1: 2017 Electroacoustics. Sound level meters - Pattern evaluation tests
5. BS EN IEC 60942:2018 Electroacoustics. Sound calibrators

APPENDIX A: BARRIER LOCATIONS

Figure B.1: Barrier location plan





SIZEWELL C PROJECT –
DRAFT NOISE MONITORING AND MANAGEMENT PLAN

NOT PROTECTIVELY MARKED

APPENDIX B: MONITORING LOCATIONS

NOT PROTECTIVELY MARKED

Figure B.1: Indicative monitoring location plan



APPENDIX C: BASELINE NOISE LEVELS

Table C.1: Summary of ES baseline noise survey results

Receptor Name	Receptor Reference (See Figure C.1)	Typical Daytime Noise Level		Typical Night-time Noise Level	
		L _{Aeq,T} (dB)	L _{A90,T} (dB)	L _{Aeq,T} (dB)	L _{A90,T} (dB)
Eastbridge South	MS1	50	32	38	26
Lower Abbey Farm	MS2	55	34	38	28
Leiston Old Abbey	MS3	38	35	40	35
Land East of Potters Farm	MS4	43	35	30	25
Land South and West of Minsmere	MS5	36	29	31	28
The Roundhouse	MS6	41	35	38	35
Ash Wood Cottages	MS7	45	40	39	35
Abbey Marshes	MS8	45	40	35	33
Coast Path North	MS9	43	39	41	39
Bridleway Centre	MS10	45	35	35	28
Hill Farm	MS11	45	37	33	25
Leiston Abbey, rear	MS12	42	38	30	27
Old Abbey Farm Lodge	MS13	71	42	50	28
Abbey Cottage	MS14	56	41	40	30
Old Abbey Care Home	MS15	47	43	34	30
Sizewell Marshes West	MS16	45	36	34	27
Sizewell Marshes East	MS17	40	39	40	39
Cakes and Ale Caravan Site	MS18	50	42	40	33
Leiston North	MS19	70	40	60	30
Coastal Path at Site	MS20	50	48	48	47
The Gatehouse, Saxmundham Road	MS21	70	40	50	30
Leiston Station	MS22	65	45	45	30
Leiston Centre	MS23	47	40	40	30
Valley Road, Leiston	MS24	45	40	35	28
Sandy Lane West	MS25	50	45	45	30
Keepers Cottage	MS26	42	35	30	28
Rosery Cottages	MS27	47	45	47	45
Sizewell Village	MS28	48	43	43	40
Leiston Rail Crossing, King George's Avenue	MS29	65	45	50	35

NOT PROTECTIVELY MARKED

Receptor Name	Receptor Reference (See Figure C.1)	Typical Daytime Noise Level		Typical Night-time Noise Level	
		L _{Aeq,T} (dB)	L _{A90,T} (dB)	L _{Aeq,T} (dB)	L _{A90,T} (dB)
Crown Lodge	MS30	60	45	45	30
Sandlings	MS31	40	35	32	30
Sizewell Campsite	MS32	50	48	50	48
Leiston West	MS33	45	38	33	30
Minsmere (Bittern Hide)	MS34	35	30	33	27
Minsmere (Post N)	MS35	38	30	32	25
Minsmere (South Hide)	MS36	40	37	40	37
Leiston Abbey Courtyard	MS38	43	35	30	26
Leiston Abbey Residential Block	MS39	45	37	35	26
Cakes and Ale Entrance	MS40	53	36	40	26
Sizewell Gap	MS41	54	45	45	40
Halfway Cottages (Sizewell Gap Road)	MS42	53	45	40	35
Heath View, Eastern end	MS45	46	40	40	35
Heath View, Southern end	MS46	42	37	30	28

NOT PROTECTIVELY MARKED

Figure C.1: ES baseline monitoring location plan

