Noise Management Plan Cockenzie Levelling Up Works

Balfour Beatty I Regional I Scotland

Version	Date	Summary of Change	Author	Approved by
01	01/05/2024	Draft for Comment	Clark Riddick	



Balfour Beatty

Contents

1.	Purp	oose	3
2.	Doc	ument Review and Issue	3
3.	Spe	cific Requirements	3
4.	Proj	ect Location and Sensitive Receptors	4
5.	Wor	king Hours	5
5	.1.	Planned Out of Hours Works	6
5	.2.	Unplanned Out of Hours Works	6
6.	Base	eline Noise Monitoring	6
7.	Proj	ect Activities and Specific Mitigation	7
7	.1.	Haul Route and Access Road Construction	7
7	.2.	Plant and equipment for Bund Removal, Earthworks and Tunnel Works	8
7	.3.	Site wide mitigation	9
8.	Con	struction Noise Monitoring	11
9.	Vibr	ation	12
9	.1.	Monitoring	12
10.	C	onsultation, Liaison and Communication	12
11.	11. Complaints Procedure12		
Арр	Appendix 1: Site Location		13
Арр	endix	2: Site Layout, Receptors and Proposed Monitoring Locations	14
Арр	endix	3: OOH Application Form	15
Арр	endix	4: Noise Monitoring Record	16
۸ m m	ondiv	5. Project Communication Record	



1. Purpose

This Noise Management Plan relates to the Cockenzie Levelling Up project and identifies:

- The locations which are sensitive to potential noise and vibration from the works.
- The site activities with the potential to generate noise and vibration and the control methods which will be employed to minimise these emissions in accordance with BS5228: Code of Practice for Noise and Vibration Control on Construction and Open Sites, 2009 (as amended in 2014).
- The monitoring methods to ensure the implementation and effectiveness of the control measures.
- The procedure for community liaison and communication relating to noise and vibration from the works

2. Document Review and Issue

Review of the Noise Management Plan shall be carried out in conjunction with the review of the Sustainability Plan (CEMP), at intervals no greater than six months and following any significant changes to the project or findings of the monitoring which requires an update to the mitigation proposed here.

3. Specific Requirements

This Noise Management Plan is required to meet the Planning Condition:

"Prior to commencement of development the applicant shall submit a Noise Management Plan (NMP) to the planning authority for approval. The NMP shall identify all potential sources of noise and thereafter specify any mitigation measures considered necessary, including details of monitoring and compliance with Threshold Values at Noise Sensitive Receptors as detailed in Table 4.4 of SLR's Report of 14th March 2024, to minimise noise impacts upon noise sensitive receptors during the construction phase."



4. Project Location and Sensitive Receptors

The site encompasses land to the north-west and south-east of the B1348 and west of the B6371 in Cockenzie. The site lies between the villages of Cockenzie, Prestonpans and Port Seton and the site boundary adjoins the southern shores of the Firth of Forth. The site location is provided as Appendix 1. The site of the former Cockenzie Power Station is located immediately north-west of the Edinburgh Road (B1348). The majority of the site is currently a void following the demolition of the power station in 2015.

Ground preparation works are complete on the adjoining site to the south-west of the void of the former power station in preparation for the Inch Cape Offshore Wind Farm substation construction.

The site of the former coal store is vacant with some light vegetation growth. The coal store is surrounded on four sides by earthwork bunds. The bunds vary in height from approximately 23m to 30m with the overall widths of the bunds varying between approximately 30m to 40m in the northern, southern and western bunds and 45m to 63m in the eastern bund. The Northern, Western and Southern bunds contain a mixture of vegetation and sparse trees with further dense vegetation and trees to the south and west. Vegetation on the Eastern bund (Northern section), particularly the outer wall of this bund is denser and contains a mixture of trees and vegetation.

There is an existing concrete tunnel and chamber system (associated with a previous coal conveyor system) within the Northern section of the Eastern bund which is accessible via a gated entrance in the North-East point of the bund. Between the Northern and Southern sections of the Eastern bund is the concrete base of a wagon-discharge house that was previously demolished. A bund of aggregate is currently stockpiled in the location of the former wagon-discharge house and this separates the Northern and Southern sections of the Eastern bund. Along the top of the Southern section of the Eastern bund is a railway line that was historically used to transport coal to the site. There is also an underpass bridge to the railway line which allows vehicular access to the former coal store yard. An existing access road runs along the outer wall of the northern and eastern bund boundaries with an existing gated access point to the coal store off the B6371 to the east of the former coal store.

There are varied existing land uses on land surrounding the site. To the West and South-West of the former coal store are residential properties, the closest of which are the properties located at Atholl View and Preston Crescent, approximately 100m West of the site. To the South of the former coal store lies agricultural land which is dissected by the railway line which served the former coal store site. To the East of the coal store site lies the B6371 beyond which there is further agricultural land. To the North of the former coal store is an existing access road beyond which lies further agricultural land. Between the former coal store site and the B1348 Edinburgh Road sits the existing 275kV substation building.

The void of the former power station site sits within the North of the site and adjoins the Firth of Forth. Cockenzie Village Harbour sits approximately 80m North-East of the site boundary while the John Muir Way runs along the coastal section of the site boundary. Preston Links, a green open space is situated to the South-West of the void beyond the proposed location of the Inch Cape Offshore Wind Farm substation.

There are a number of footpaths and cycle paths in the vicinity of the site and the site is heavily influenced by electric transmission infrastructure in the form of electricity pylons which run from the existing 275kV substation in a north to south direction on both the east and west sides of the former coal store.



The following noise sensitive receptors (NSR) have been identified by SLR Consulting LTD who completed a comprehensive Construction Noise and Vibration Impact Assessment for East Lothian Council in February 2024 using noise monitoring points (NMP). For the purpose of monitoring during construction works the same NMPs would be used. See Appendix 2 Noise Monitoring Location Plan

Location	Description and Relevance	
NMP1	 Deemed representative of existing residual sound pressure levels at NSRs to the north-east in the coastal region: Boatyard. West Harbour Road. Edinburgh Road. Hawthorn Terrace. 	
NMP2	 Deemed to be equidistant in respect to existing sea and traffic noise sources at existing receptors. Representative of existing residual sound pressure levels at NSRs: Cedar Drive (east). Atholl View (west). Whin Park/Inglis Farm and The Chimneys to the north. Adjacent residential roads to above. 	
NMP3	Deemed representative of existing receptor further east:Seton West Mains.	
NMP4	 Deemed representative of existing receptor: Preston Terrace. Longdykes Road. Preston Crescent. 	
NMP5	 Deemed representative of existing receptor: High Street. Appin Drive. Nethershot Road. 	

Table 4.1 Noise Monitoring Points and Noise Sensitive Receptors

5. Working Hours

The working hours for the projects will be:

- Monday to Friday between 07.00 and 18.00 hours
- Saturday between 07.00 and 13.00 hours
- No working on Sundays and public holidays without written permission from East Lothian Council.



5.1. Planned Out of Hours Works

In general, no out of hours works will be required for the main works, however night works may be required in certain circumstances.

For planned works out with these hours, the out of hours request form (Appendix 3) will be submitted to East Lothian Council at least 14 days in advance of the works.

Out of hours works will only be permitted for works that meet the following criteria:

- It is not reasonably practicable to carry out the work during standard working hours
- All alternative means to reduce the amount of work to be undertaken out with standard working hours has been explored.
- All interested parties have been consulted and a letter drop has been provided to resident within 200m of the works, no later than 48 hours prior to the works starting.

5.2. Unplanned Out of Hours Works

Occasionally during the works, unforeseen events will result in works running over, or emergency works having to be undertaken at short notice. On these occasions, where possible, the local authority will be informed. Where this is not possible, the Local Authority shall be informed of any unplanned works the next working day either by phone or by email.

6. Baseline Noise Monitoring

Baseline monitoring was undertaken by SLR Consulting Ltd between 01/12/2023 and 04/12/2023. The location of the monitoring is shown in Appendix 2 Noise Monitoring Locations. There will be additional baseline monitoring completed at these same locations prior to any works starting for the project records.



7. Project Activities and Specific Mitigation

The proposed development will allow for the formation of developable platforms on the sites of the former Cockenzie Power Station and coal store. It is intended that the proposed development would be carried out as set out below:

• remove the earthwork bunds around the former coal store site, including concrete structures to increase the developable area and improve access;

- form a temporary haul route and access to the B1348; and
- transport bund material from the former coal store site to infill the void that exists on the site of the former Cockenzie Power Station following its removal.
- re-grade the former coal store site with the remaining bund material.

It is intended that the above works will create developable platforms on the sites of the former Cockenzie Power Station and coal store upon which future development proposals can be constructed.

7.1. Haul Route and Access Road Construction

Haul route construction to form a temporary haul route from the North-West corner of the bund to the B1348 and a temporary access to the B1348 on both its North and South sides will form one element of the works likely to cause a noise impact. Vibration nuisance is unlikely during construction activities. The following plant (which form the predominant noise sources) together with their predicted operating level and noise mitigation are shown in Table 7.1.

Plant	BS5228 Ref.	BS5228:2014 Sound Pressure Level dBA@10m	Control measures
Excavator (35T)	C5.18	80	Well maintained, switched off when not in use.
Excavator (20T)	C2.3	78	Well maintained, switched off when not in use.
Dump Truck	C5.16	81	Well maintained, switched off when not in use.
Dozer	C5.15	83	Well maintained, switched off when not in use.
CAT Grader	C6.31	86	Well maintained, switched off when not in use.
Asphalt paver	C5.31	77	Well maintained, switched off when not in use.
Vibratory compactor	C5.22	81	Well maintained, switched off when not in use.

Table 7.1: Plant and equipment list for haul route construction



7.2. Plant and equipment for Bund Removal, Earthworks and Tunnel Works

The bund removal exercise and tunnel removal along with the infill exercise are also likely to have a noise impact. Vibration nuisance is unlikely during construction activities. The following plant (which form the predominant noise sources) together with their predicted operating level and noise mitigation are shown in Table 7.2 below.

Plant	BS5228 Ref.	BS5228:2014	Control measures
		Sound Pressure	
		Level dBA@10m	
Excavator (30T)	C2.16	75	Well maintained, switched off when not
			in use.
Excavator (13T)	C2.25	69	Well maintained, switched off when not
			in use.
Dump Truck (25T)	C2.30	879	Well maintained, switched off when not
			in use.
Dozer	C2.12	81	Well maintained, switched off when not
			in use.
Excavator (45T)	C4.63	77	Well maintained, switched off when not
			in use.
CAT Grader	C6.31	86	Well maintained, switched off when not
			in use.
Dump Truck (40T)	C6.26	79	Well maintained, switched off when not
			in use.
Roller (13T)	C2.37	79	Well maintained, switched off when not
			in use.
Gas cutter	C1.18	79	Switch off when not in use.
Telescopic crane	C4.39	77	Well maintained, switched off when not
			in use.
Telehandler	C4.55	70	Well maintained, switched off when not
			in use.
Diesel generator	C4.85	66	Well maintained, switched off when not
			in use.
Angle grinder	C4.93	80	Switch off when not in use.
Tower lights			
Vibratory	C5.22	81	Well maintained, switched off when not
compactor			in use.

 Table 7.2: Plant and equipment list for Bund removal, tunnel works and infill works



7.3. Site wide mitigation

The adoption of Best Practicable Means, as defined in the Control of Pollution Act 1974, is usually the most effective means of controlling noise from sites. Within the constraints of efficient site operations and the requirements of the relevant British Standards, the following will be employed:

- Where reasonably practicable, quiet working methods will be employed, including use of the most suitable plant, reasonable hours of working for noisy operations, and economy and speed of operations
- On-site noise levels will be monitored regularly, particularly if changes in machinery or project designs are introduced, by an individual with a certificate of competence in environmental noise measurements.
- Proper use of plant with respect to minimising noise emissions and regular maintenance in line with plant manuals
- Machines in intermittent use will be shut down in the intervening periods between work or throttled down to a minimum
- All ancillary plant such as generators, compressors and pumps will be positioned so as to cause minimum noise disturbance. If necessary, acoustic barriers or enclosures will be provided
- limit the use of particularly noise plant, i.e. do not use particularly noisy plant early in the morning or later into the afternoon or evening
- limit the number of plant items in use at any one time, where possible
- plant maintenance operations should be undertaken as far away from noise-sensitive receptors as possible
- phasing the works to maximise the benefit from perimeter structures
- any compressors brought on to site should be silenced or sound reduced models fitted with acoustic enclosures
- reduce the speed of vehicle movements
- all pneumatic tools should be fitted with silencers or mufflers
- ensure that operations are designed to be undertaken with any directional noise emissions pointing away from noise-sensitive receptors where practicable
- when replacing older plant, ensure that the quietest plant available is considered wherever possible
- drop heights must be minimised when loading vehicles with rubble
- care should be taken when loading vehicles to minimise disturbance to local residents. Vehicles should be prohibited from waiting within the site with their engines running
- all plant items should be properly maintained and operated according to the manufacturers' recommendations in such a manner as to avoid causing excessive noise. All plant should be sited so that the noise impact at nearby noise-sensitive properties is minimised
- local hoarding, screens or barriers should be erected as necessary to shield particularly noisy activities; and
- any problems concerning noise from construction works can sometimes be avoided by taking a considerate and neighbourly approach to relations with local residents. Works should not be undertaken outside of the hours agreed with the local authority.
- Adherence to the codes of practice for construction working and piling given in British Standard (BS) 5228-1 and BS 5228-2 and the guidance given therein regarding minimising noise and vibration emissions from the site.
- No radios or music will be permitted onsite. Walkie Talkies will be used to reduce the need for operatives to shout to communicate with each other.



- The contractor's site induction will include good working practice instructions for site staff/managers and contractors to help minimise noise and vibration whilst working on the site.
 - Good working practice guidance/instructions should include, but not be limited to, the following points:
 - Avoid un-necessary revving of engines
 - plant used intermittently should be shut down between operational periods
 - avoid reversing wherever possible
 - drive carefully and within the site speed limit at all times
 - report any defective equipment/plant as soon as possible so that corrective maintenance can be taken.
- A weekly inspection of all plant shall be made to ensure that:
 - any plant found to be requiring interim maintenance should be identified by the operator and repairs undertaken by a qualified engineer as soon as possible
 - regular and effective maintenance of plant can play an important part in keeping noise levels under control
 - always ensure that doors fitted to acoustic enclosures around fixed plant remain closed, the fitting of self-closing mechanisms is advisable.
- The Project will endeavour to be good neighbours:
 - get to know the neighbours, be concerned about them and try to understand their problems, encourage them to know the site personnel, listen as well as talk,
 - hold a liaison meeting and provide information as freely as possible
 - create a good impression by running a tidy and efficient site
 - Ensure lines of communication
 - nominate a point of contact for issues relating to the site
 - support a liaison committee
 - give advance notice and explanation of activities that might cause complaint
 - keep systematic records of complaints and the remedial actions taken
 - follow up complaints with correspondence and action
 - ensure that site staff are environmentally aware and are trained to cope with issues
 - do not rely on the letter of the law where there are obvious problems, but culpability cannot be easily proved; be prepared to be flexible
 - try to co-operate and avoid being adversarial
- There is a requirement for managing noise from site operations to minimise the impact on wintering birds within the Forth Estuary and the following mitigation is to be implemented:
 - Methods to attenuate noise from construction will be utilised, notably the use of sound walls and any modification of machinery that would reduce noise levels. Any works resulting in noise over 50 dB undertaken in the vicinity of waterbird populations within 300 m during the wintering/passage season will be supervised by a suitably qualified and experienced ECoW to determine if additional measures are required;



8. Construction Noise Monitoring

Noise monitoring will be undertaken at locations NMP1, NMP2, NMP3, NMP4 and NMP5 every 2 weeks as a minimum to assess the noise levels from site works. These are the locations that SLK completed baseline noise monitoring at so will give a good indication of any noise impact that the site operations are having.

All measurements will be conducted in accordance with the methods described in Annex G of British Standard BS5228 using only Class-1 sound level monitoring equipment. The results of periodic monitoring shall be available to all stakeholders, including the environmental health team at East Lothian Council one week after the measurement date or within two days of any complaint being received. The noise monitoring results will be recorded in the project noise monitoring record form (Appendix 4). If the noise levels are found to be more than those agreed, work shall be stopped immediately until further noise reduction measures are implemented to bring the noise to the required level.

9. Vibration

The potential for vibration has been considered and it is expected that vibration levels will be insignificant from these works.

9.1. Monitoring

In the unlikely event of vibration related complaint, then investigation or temporary monitoring will be undertaken if necessary to derive the magnitudes of vibration impacts experienced and consider these against the criteria in BS5228-2.

Vibration Level (PPV) mm/s	Effect		
≤0.14	Vibration might be just perceptible in the most sensitive situations for most vibration frequencies associated with construction. At lower frequencies, people are less sensitive to vibration.		
>0.14 and ≤0.3	Vibration might be just perceptible in residential environments.		
>0.3 and ≤1.0	It is likely that vibration of this level in residential environments will cause complaint but can be tolerated if prior-warning and explanation has been given to residents.		
>10	Vibration is likely to be intolerable for any more than a very brief exposure to this level.		

10. Consultation, Liaison and Communication

Regular community liaison and communication will be planned in conjunction with BEAR Scotland via the following formats:

- Introductory Letter prior to works starting
- Community meetings

All site workers and staff will receive environmental training as part of the project induction prior to starting works on the project. Task specific control measures for controlling nuisance will be included on task briefing sheets and briefed out to those working on that activity each morning before works begin.

11.Complaints Procedure

Any complaints will be managed in accordance with <u>HSES-PR-0010 Communication and</u> <u>Consultation.docx (sharepoint.com)</u>. All complaints will be logged on a <u>HSES-SF-0010a Project</u> <u>Communication Record.docx (sharepoint.com)</u> (Appendix 5) and saved on the project SharePoint. All complaints will be investigated thoroughly with the aim of responding to complainers within 24 hours of the complaint being raised.



Appendix 1: Site Location



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Appendix 2: Site Layout, Receptors and Proposed Monitoring Locations

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Appendix 3: OOH Application Form

Appendix 4: Noise Monitoring Record



Appendix 5: Project Communication Record



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Appendix 2 - Noise Monitoring Location Plan

Out of Hours Working Request

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Company:	Balfour Beatty
Company Contact:	Angela Pllu
Company Contact telephone number:	07935 074608
Site Name and Address	Cockenzie Levelling Up Works Cockenzie East Lothian
OOH Reference Number	OOH- Cockenzie -001

Project	Cockenzie Levelling Up Works
Supervisor(s) name:	
Supervisor(s) mobile number:	
Location of Worksites:	
Date of works	
Start & Finish times:	

Reason why these works have to be undertaken out of hours.			
Plant to be used			
•			
Approx. no of operatives/Staff			

Works to be undertaken
Residents and businesses likely to be affected and mitigation measures
Neighbour notification method
Letter of notification.

Table 3: Sensitive properties

Predicted noise levels at sensitive location ¹	Property and distances	High	Medium	Low	
			X		
Mitigation measures to	•				

Out of Hours Working Request

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minimise high and levels of noise	medium at each				
location					
¹ Criteria for predi	cted noise levels				
High	Operations that involve frequent mechanical impact, large numbers of plant and/or are				
	continuous for 30 to 60 min. in every 1 hour.				
Modium	Operations that involve manual impact noise, movement of plant (e.g. excavation, movement of				
weuluin	materials etc) and/or are continuous for 10 to 25 min. in every 1 hour.				
Low	Little or no perceptible noise above background levels at receptor, manual activities, limited plant				
	and/or are continuous for up to 10 min. in every 1 hour.				

	Name	Signature	Date
Authorised by Project Agent			
Authorised by			
Environmental Manager			

For Environmental Health Officer use:

Granted:

If Yes, detail any additional comments/conditions

If No, detail any additional comments/conditions

	Name	Signature	Date
Authorised EHO			

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1.0 SITE INFORMATION

Contract Name:	Contract Number:	
Site Name:	Section 61? (Y/N)	
Site Address:		
Description of Works:		

2.0 PROGRAMME AND MONITORING

The following table should be used to enter details of proposed and actual noise monitoring on site. Ideally the times and dates should be confirmed prior to works commencing by the project's SHE Representative. If no noise monitoring programme has been defined prior to the works commencing this form may still be used on an ad-hoc basis to record any noise monitoring that is undertaken. The definitions of the three decibel readings (LAeq, Lmax, L90) are as follows:

- dB LAeq: value of the equivalent sound pressure level determined at a distance of 10 metres from, and over the period of, a given activity ٠
- dB Lmax: the highest value sound pressure level with a specified time weighting that occurred over the monitoring period .
- dB L90: the threshold value at which the noise level was above for 90% of the monitoring period ٠

Date	Time	Duration	Location	Activity	dB	dB	dB L90	Assessor Name
					LAeq	Lmax		
16/03/2013	00:15		Eg. Site boundary – north	Piling	79.6	85.7	76.4	A. Nother
Document Aut Date of Issue:	horiser:	Ffitch, Rebeo 05/06/2017	cca	Page 1 of 2 Ver	sion: 1.0		Uncontr	olled when printed or dowr A Balfour Beatty UK Do

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Date	Time	Duration	Location	Activity	dB LAeq	dB Lmax	dB L90	Assessor Name

3.0 NOISE MONITOR DETAILS

Enter details below of the noise monitor that is used to carry out the monitoring detailed in section 2.0. If more than one noise monitor is used please indicate in section 2.0 which monitor was used for which readings. It is advised that a manual calibration is carried out prior to use of noise metre for monitoring purposes.

Make & Model	Date of last UKAS Calibration	Date of last Manual Calibration	Time of last Manual Calibration
Eg. Cirrus CR245	31/05/2012	15/03/2013	21:00

1. Details of the Person	Making the Enquiry / C	omplaint				
Title	First Name					
Surname		Company				
Address		Town/City				
		Postcode				
Telephone		Mobile				
E-mail						
2. Details of how the Er	nquiry / Complaint was	Received				
Date enquiry or complain	it was received					
How enquiry or complain	t was received (circle	Verbal	E-mail		Fax	
as appropriate)		Letter	Phone		Online	•
		Other (please de	etail)			
3. Details of Enquiry / C provided to the person m	complaint (record as much aking the enquiry or com	ch detail as possil plaint)	ole, includir	ıg any i	nformat	ion already
4. Follow up Action Rec	quired					
Action		Persor	١	Actio Date	on e	Date Closed
5. Person taking the En	quiry / Complaint					
Name		Phone	Number			
Work address / Location						
Contractors on site						
Work being carried out						

Once completed, record the summary in iSMS and file this document if required.