

HORIZON

NUCLEAR POWER



Wylfa Newydd Project

Request for Non-Material Change no.1

Blasting Strategy

PINS Reference Number: EN010007

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Revision 1.0

Planning Act 2008

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

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1 Introduction

1.1 Purpose of this report

- 1.1.1 This report sets out a proposed non-material change to the Wylfa Newydd DCO Project. The Project is subject to a Development Consent Order (DCO) application that was submitted by Horizon Nuclear Power Wylfa Limited (“Horizon”) and accepted for Examination by the Secretary of State for Business, Energy and Industrial Strategy on 28 June 2018. The Application is currently in its Pre-Examination Phase.
- 1.1.2 Recipients of this report are invited to provide representations on the proposed non-material change to Horizon by **Friday 28 September 2018**. Feedback will be via Horizon’s freepost address (FREEPOST WYLFA NEWYDD, no stamp required) or by emailing wylfaenquiries@horizonnuclearpower.com. If you have any questions about the consultation, please call 0800 954 9516.
- 1.1.3 This report will subsequently be revised having regard to representations received, and submitted to the Planning Inspectorate as a request for the non-material change to be considered by the Examining Authority and, Horizon proposes, taken fully into account during Examination (with the opportunity for Interested Parties to make further representations in Examination accordingly).
- 1.1.4 The non-material change proposed relates to the time frame within which blasting would be permitted to occur. Horizon is seeking to extend the weekday hours for blasting from between 10.00 and 16.00, to between 09.00 and 19.00, and Saturday blasting from between 10.00 and 13.00, to between 09.00 and 13.00. These changes are proposed following ongoing contractor engagement and to minimise project risk. No new or different likely significant environmental effects are predicted.
- 1.1.5 This document uses terms and definitions that are taken from and can be seen in the DCO General Glossary (Application Reference Number: 1.4).

1.2 Scope of this report

- 1.2.1 This report describes the proposed change being sought and sets out the environmental appraisal of this proposed change. It includes a table (Table 2-2) clearly setting out the implications of the proposed change to the environmental assessments detailed in the Wylfa Newydd DCO application, and a statement on any new or different likely significant environmental effects (if any) of the proposed change.
- 1.2.2 This report also includes a ‘schedule of engagement’ (Table 2-2) identifying the parties expected to have an interest in this proposed change and how Horizon proposes to engage with them.
- 1.2.3 Finally, a ‘schedule of consequential amendments’ is provided (Table 2-3), listing the original application documents (or parts thereof) which may be

amended by Horizon should the Examining Authority accept the proposed change.

- 1.2.4 Horizon's objective in compiling this report is to provide stakeholders with sufficient information to comment on the change – and, after consultation, for the Examining Authority to make a decision on whether or not the proposed change may be accepted as a non-material change and therefore included in the Examination of the Application.
- 1.2.5 However, should the stakeholders or the Examining Authority require any reasonable relevant additional information in support of this report, Horizon will endeavour to provide it as soon as possible in response to any request for such information.

1.3 Non-materiality of the proposed change

- 1.3.1 In assessing the proposed change, Horizon has had regard to the advice contained in the Planning Inspectorate's Advice Note 16: *How to request a change which may be material* (Version 2, March 2018) [RD1].
- 1.3.2 The proposed change has been reviewed and assessed, and has not been found to result in any new or different likely significant environmental effects than those reported in the Environmental Statement¹ for the Project. Horizon has reviewed its Environmental Statement and has identified the following topic chapters which could potentially be affected by the change:
- noise and vibration (chapter D6, Application Reference Number: 6.4.6);
 - landscape and visual (chapter D10, Application Reference Number: 6.4.10);
 - terrestrial and freshwater ecology (chapter D9, Application Reference Number: 6.4.9);
 - the marine environment (chapter D13, Application Reference Number: 6.4.13); and
 - combined topic effects (chapter D16, Application Reference Number: 6.4.16).
- 1.3.3 It is not anticipated that the proposed change to the blasting schedule will result in any new or different likely significant cumulative environmental effects resulting from the interaction with other projects.
- 1.3.4 Horizon also intends to consult on a further proposed non-material change with respect to increasing the maximum daily limit of vessels entering and leaving the Marine Off-Loading Facility (MOLF). It is not anticipated that the proposed change to the blasting schedule outlined in this report will interact with the proposed vessel movements change to produce any new or different

¹ Environmental Statement PINS Reference 6.1 - 6.11. Hereafter the term ES/ Environmental Statement is used

likely significant environmental effects resulting from the interaction of these projects either in combination or cumulatively with any other projects.

- 1.3.5 The Shadow Habitats Regulations Assessment Report (Application Reference Number: 5.2), and the Health Impact Assessment Report (Application Reference Number: 8.19) have also been considered in light of the proposed change, and Horizon has concluded that the change would not result in a change to the conclusions on effects in those reports.
- 1.3.6 Taking the above factors into account, and subject to the representations received in response to this consultation, Horizon therefore believes that this should be regarded as a non-material change.

1.4 Engagement and consultation on the proposed change

- 1.4.1 Previous consultations held on the Wylfa Newydd DCO Project that have referenced blasting have been on the Preliminary Environmental Information Report (PEIR) that was produced for the Stage One Pre-Application Consultation (PAC1) document. The Consultation ran for a 10-week period ending on the 8 December 2014.
- 1.4.2 PAC 1 consulted on blasting between the hours of 09.00 to 17.00 Monday to Friday.
- 1.4.3 In addition, PAC 2 consulted on the creation of a “blasting management plan... to set out good practice measures for the reduction of potential air overpressure effects”. And non-statutory consultation in February 2016 with the Isle of Anglesey County Council (IACC) and Natural Resources Wales (NRW) on the EIA Progress Report stated that: “it is likely that there would be one to two [blasting] events per day, up to maximum of three per day, scheduled between 10:00 hours and 16:00 hours, Monday to Friday and Saturday mornings. If more than three fracturing events per day are required for operational reasons, these would be designed to meet lower vibration limits, in accordance with BS6472-2.”
- 1.4.4 It is proposed that the parties expected to have an interest in the proposed change are as listed in Section 2.8. As such, Horizon is providing this document for consultation from Tuesday 14 August 2018 (the day after the Relevant Representations period closes) until Friday 28 September 2018. The consultees should provide their representations to Horizon (not to the Planning Inspectorate) as set out in paragraph 1.1.2, above. Follow-up calls and meetings will be made available as required.

1.5 Proposed procedure after consultation

- 1.5.1 As noted above, Horizon will revise this document having regard to representations received and submit it to the Planning Inspectorate as a request for a non-material change to the DCO application. Horizon appreciates that the acceptance and appropriate procedure for the consideration and Examination of this proposed change is entirely a matter for the Examining Authority. However, Horizon does consider that the proposed

changes can be considered and fully and properly examined within the Examination timetable.

- 1.5.2 Based on the consultation described in paragraph 1.4.4 above, Horizon expects to have regard to representations received and re-submit an appropriately updated version of this document to the Planning Inspectorate by the end of week commencing 1 October 2018, which is expected to be several weeks before a likely date for commencement of the Examination (given the typical 100-130 day duration of the Pre-Examination period). Subsequently, the full six-month Examination period would be available to give Interested Parties an opportunity to comment on the proposed change by making representations on a suitable Examination deadline chosen by the Examining Authority.

2 Non-Material Change: Blasting Strategy

2.1 Background to the proposed change

- 2.1.1 During construction of the proposed Wylfa Newydd Power Station, blasting will be required as part of the bulk earthworks for site levelling and grading, and will also be required as part of the deep excavations for the power blocks (Units 1 and 2), during construction of the Cooling Water Intake, and outfall tunnels, and service trenches, and for dry excavation of the inner harbour. Additional blasting may be required for excavation of redundant buried features such as culverts and building foundations.
- 2.1.2 Multiple activities such as rock anchoring, rock pinning, shotcrete application and preparation for structure foundations will be ongoing simultaneously during the blasting and excavation phase. These activities require significant numbers of people, plant and equipment and associated coordination. Due to the associated risk of blasting, a robust management system will be enforced and it will be necessary to establish, clear, secure and control danger zones with barriers, warning systems and sentries. During the blasts, the workforce and plant will be cleared from the areas which will reduce the working time available for production and, as such, the blasts would normally be planned to occur during breaks. However there will be points in the project where this is not practical and blasts would need to be planned outside of these times. As such, flexibility in blasting times is key to ensure an efficient and safe construction timetable.
- 2.1.3 Within the Environmental Statement (appendix B6-2 Noise and Vibration Modelling and Assessment Methodology Report, Application Reference Number: 6.2.21) and the Main Power Station Site sub-Code of Construction Practice (sub-CoCP) (Application Reference Number: 8.7) as submitted, it was proposed that blasting would be scheduled Monday to Friday between 10.00 and 16.00, and Saturday between 10.00 and 13.00.

2.2 Minerals Technical Advice Note 1

- 2.2.1 The blasting times proposed within the DCO as submitted align with the recommendations set out in Minerals Technical Advice Note 1 (MTAN1, paragraph 83) and as consulted with IACC in respect of Saturday mornings.
- 2.2.2 MTAN1 specifically relates to aggregates extraction and covers the impact of production blasting in quarries, rather than blasting for the purposes of the complex construction operations. MTAN1 sets out recommended times of day for blasting, and maximum levels of ground vibration at properties due to blasting at quarries.
- 2.2.3 On-going contractor involvement since the preparation of the DCO submission has led to the conclusion that reliance on MTAN1 for blasting times could cause operational difficulties. The primary activity of a quarry is aggregate production for which large bench blasts are required. Blasts at quarries are specifically designed to produce rock at the required shape and size and (as a secondary consideration) to minimize any further rework. One blast in a quarry may produce enough material for over a week of extraction. As such

the quarry will be set up as an efficient aggregates production facility to meet the quantities and quality required. The blasting requirements and conditions in the Wylfa Newydd Development Area (WNDA) will be very different, as set out below. As such it is considered that the appropriate revised standard is British Standard BS 6472-2:2008 Guide to Evaluation of human exposure to vibration in buildings. Blast-induced vibration [RD2]

2.3 Basis for revised blasting controls British Standard BS6472-2

- 2.3.1 Section 6 of British Standard BS 6472-2:2008 [RD2] sets out satisfactory vibration magnitudes from blasting.
- 2.3.2 Ground vibration is measured in terms of Peak Particle Velocity (PPV) with units in mm/s. For blast vibration occurring up to three times per day, BS 6472-2 [RD2] states that: *“the generally accepted maximum satisfactory magnitude for residential premises is a PPV of 6.0 mm•s⁻¹. However, when 6.0 mm•s⁻¹ is considered to be too restrictive a value between 6.0 mm•s⁻¹ and 10.0 mm•s⁻¹ could be used”*.
- 2.3.3 If more than three blasts per day are required, BS 6472-2:2008 [RD2] sets out a formula to apply a reduction factor in satisfactory magnitude.
- 2.3.4 BS 6472-2 [RD2] notes that the time of the blasts, the period between the blasts, and the number of blasts in a given time period can all influence the perception of satisfactory magnitude. In respect of time of day, BS 6472-2 [RD2] advises that the normal working hours for blasting for surface mineral extraction can be regarded as 08.00 to 18.00 Monday to Friday, and 08.00 to 13.00 on a Saturday with no blasting on Sundays or Public Holidays. This provides 10-hour windows for blasting Monday to Friday, and a five hour window on Saturday.

2.4 Justification for the proposed change and use of BS6472-2

- 2.4.1 Blasting at the WNDA is far more complex in nature than blasting at a quarry. The areas to be blasted at the WNDA such as the basements, trenches and tunnels are set over many levels and are different shapes and sizes. Blasting will be required not only to remove the bulk of the hard material efficiently, but also as a method of precision fracturing of the rock to meet the profile required in the conditions set out in the design. Due to the complexity of the operation, it is likely that each blast will be of a bespoke design and dependent on the amount of material required to be removed or the final profile needed. The data collected from each blast will be used to ensure continuous improvement and understanding of future blast requirements.
- 2.4.2 Since the preparation and submission of the Application for the Wylfa Newydd DCO Project, additional work has been ongoing on the construction of the Power Station including examining the blasting schedule (critically, the requirement to achieve three blasts per day for the deep excavations), and the risks posed to the wider Project programme if this schedule could not be met reliably throughout the course of Main Construction.

- 2.4.3 In undertaking this additional work with further contractor involvement, it was identified that, given the complexity of the blasting needed and the prospect of works being subject to delays, the daily time frames for blasting currently proposed within the DCO Application would not be sufficient to allow three blasts per day in the deep excavations to be achieved on a consistent basis. This is due to the following factors:
- complexity of blasting activities (e.g. time taken to lay charges), particularly with respect to deep excavations below -2m AOD which become more intricate, and is expected to necessitate some pre-split blasting involving smaller satisfactory magnitude blasts;
 - human resource constraints (e.g. shift patterns and staff breaks) which limit the period of time when sufficiently trained personnel can be available onsite to carry out blasting activities; and
 - health and safety considerations associated with blasting activities. For example, clearing the area of personnel and equipment prior to blasting is disruptive and has an impact on productivity (at this point in the programme there will be over 1000 people on site along with the associated equipment such as excavators, lorries, drilling rigs, dumpers and construction barges). Large blasts for example in the deep excavation or harbour would require a substantial evacuation areas and even blasts requiring small evacuation areas could require onsite road closures impacting on earthworks and other site logistics.
- 2.4.4 The assessment concluded that, while reliance on the MTAN1 time frame may be suitable for blasting in aggregates production, the potential for delays (and extensions) to the blasting schedule in the WNDA were such that they posed significant risk to the wider Project programme.
- 2.4.5 Consequently, Horizon has looked at further guidance on blasting and concluded that it would be more appropriate to align the time period for blasting closely to that stipulated in BS 6472-2 [RD2] for surface mineral extraction, which regards normal working hours for blasting to be 08.00 to 18.00 Monday to Friday (10 hours) and 08.00 to 13.00 (4 hours) on a Saturday.
- 2.4.6 The proposed change, described in detail below, would provide Horizon with sufficient flexibility to allow the blasting schedule to be achieved practically, reliably and safely, with the further option of recovering potential delays if necessary.
- 2.4.7 From a commercial and environmental standpoint, aligning more closely with BS6472-2 [RD2] is Horizon's optimum option for achieving its programme and cost schedule. Continuing with the current time frame detailed in MTAN1, and subsequently in the DCO application, is likely to result in delays to the wider Project programme, because of the difficulty in achieving three blasts per day in the deep excavation, increased costs because of the same issue, and potentially prolonged environmental effects.

- 2.4.8 As detailed below, the proposed change has been reviewed and assessed, and has not been found to result in any new or different likely significant environmental effects than those reported in the Environmental Statement
- 2.4.9 This approach also aligns with wider Project ambitions to meet the urgent national need for new, low carbon electricity generation that is safe, secure and affordable, in accordance with UK Government policy set out in National Policy Statement EN-1.

2.5 Description of the change

- 2.5.1 Horizon is proposing an extension to the time frame within which blasting for the Main Construction works is permitted, from:

Monday to Friday between 10.00 and 16.00, and Saturday between 10.00 and 13.00;

to

Monday to Friday between 09.00 and 19.00, and Saturday between 08.00 and 13.00 (With no blasting after dusk between March and September). In practice, because of the change in length of day and the change to BST, dusk falls after 19:00 from April until September.

- 2.5.2 In accordance with BS 6472-2 [RD2], the Environmental Statement states that there would be no blasting on Sundays and Bank Holidays; this aspect of the Main Construction working hours for blasting remains unaffected by the proposed change.

Table 2-1 Proposed change

DCO Submission			Proposed Change		
Day	Time	No of hours	Typical Weekday	Time	No of hours
Monday - Friday	10:00 – 16:00	6	Monday - Friday	09:00 – 19:00 (November to February inclusive) 09:00 – the earlier of dusk or 19:00 (March to September inclusive)	10
Saturday	10:00 – 13:00	3	Saturday	08:00 – 13:00	5

- 2.5.3 The proposed change would align the time period for blasting closely to that stipulated in BS 6472-2 but with start and end times both one hour later to accommodate worker shift patterns for the Wylfa Newydd Project which are intended to minimise traffic congestion (see section 4.3 of the Main Power

Station Site sub-CoCP, Application Reference Number: 8.7). The total daily duration for blasting is consistent with BS 6472-2 [RD2], that is 10 hours per day Monday to Friday, and the standard hours set out in BS 6472-2 on a Saturday.

2.6 Summary of environmental appraisal

2.6.1 The proposed change has been reviewed and assessed to identify any potential likely significant environmental effects that would be new or different to those assessed in the Wylfa Newydd DCO application. This information is summarised in Table 2-2; where relevant, further discussion is provided below.

Environmental Statement

2.6.2 This review identified that the proposed change could potentially have implications to the following assessments contained in the Environmental Statement:

- noise and vibration (chapter D6, Application Reference Number: 6.4.6) (for noise and vibration effects of construction blasting and interaction with ecological receptors and the marine environment as below);
- landscape and visual (chapter D10, Application Reference Number: 6.4.10) for landscape and visual effects of construction and interaction with ecological receptors and the marine environment as below);
- terrestrial and freshwater ecology (chapter D9, Application Reference Number: 6.4.9) (from noise and visual disturbance effects to ecological receptors, notably birds);
- the marine environment (from noise and visual disturbance effects to ecological receptors, notably the tern colony at Cemlyn Lagoon) (chapter D13, Application Reference Number: 6.4.13); and
- combined topic effects (chapter D16, Application Reference Number: 6.4.16) being the relevant intra development construction effects. Note, cumulative effects were considered but scoped out of this assessment as the issue affects the main site only and cumulative effects with any other development are considered unlikely; and

Habitats Regulation Assessment

2.6.3 Further consideration has also been given to the potential effect of the proposed change to the appropriate assessment for birds detailed in the Shadow Habitats Regulations Assessment Report (Application Reference Number: 5.2).

2.6.4 Remaining assessments detailed within the Shadow Habitats Regulations Assessment Report (Application Reference Number: 5.2) have been assessed but based on professional judgement are not considered to be

affected by the proposed change and have therefore not been considered further within this environmental appraisal.

Other assessments

- 2.6.5 Of the remaining assessments submitted as part of the Wylfa Newydd DCO application, only the Health Impact Assessment Report (Application Reference Number: 8.19) is considered to be potentially affected by the proposed change and has been considered further as part of this environmental appraisal.
- 2.6.6 All other assessments (e.g. Welsh Language Impact Assessment, Application Reference Number: 8.21; Equality Impact Assessment, Application Reference Number: 8.22 and Water Framework Directive Compliance Assessment, Application Reference Number: 8.26) would remain unaffected by the proposed change and have therefore not been considered further.

2.7 Topic assessments

- 2.7.1 The effects of the proposed change to the assessments listed below are summarised in Table 2-2, with further discussion provided below where relevant.

Noise and vibration

- 2.7.2 The Main Power Station Site sub-CoCP (Application Reference Number: 8.7) stipulates that blasting activities will comply with vibration threshold values set out in the noise and vibration management strategy (section 8 of the Main Power Station Site sub-CoCP, Application Reference Number: 8.7). The vibration threshold values are consistent with those recommended in BS 6472-2 [RD2].
- 2.7.3 The proposed change is to provide Horizon with sufficient flexibility to allow the blasting schedule to be achieved practically. There is no increase in the number of blasts which would be required, and the blasting vibration limits remain unaltered. As set out in section [2.5], the total number of hours per day during which blasting could be undertaken will remain consistent with the recommendations in BS 6472-2 [RD-2], albeit with the start and end times of the weekday period both shifted one hour later than recommended by BS 6472-2 [RD-2] to reflect shift patterns.
- 2.7.4 All blasting will continue to be subject to the noise and vibration control measures (including monitoring) set out in section 8 of the Main Power Station Site sub-CoCP (Application Reference Number: 8.7) to reduce potential disturbance effects to human and ecological receptors. These control measures include strict adherence to BS6472-2 [RD2] which sets satisfactory vibration magnitudes for residential receptors, offices and workshops. All blasting methods would therefore be designed to comply with the vibration threshold values set out in BS6472-2 to prevent undue disturbance at residential dwellings, education facilities, bat roosts and barn owl roosts.

Terrestrial and freshwater ecology

- 2.7.5 To ensure that there are no new or different likely significant effects on terrestrial receptors such as bats, otters and other crepuscular species, the proposed change does not seek to permit any additional blasting to occur after dusk during the spring/summer months.
- 2.7.6 Irrespective of the time of day blasting would occur, mitigation measures have been outlined in the Main Site sub-CoCP (Application Reference Number: 8.7) which would control effects to both human and ecological receptors. As noted above, these mitigation measures include application of the following vibration levels set out in BS6472-2 [RD2].
- 2.7.7 The proposed change is not considered to alter the assessment of disturbance effects outlined in chapter D9 of the Environmental Statement (Application Reference Number: 6.4.9).

Landscape and visual

- 2.7.8 The proposed change remains within the wider Main Construction working hours outlined in the Main Power Station Site sub-CoCP (Application Reference Number: 8.7) and therefore, lighting related to other construction activities will be required across the site whilst blasting is ongoing. No additional lighting is required.
- 2.7.9 There are a number of embedded and good practice mitigation measures outlined within the Environmental Lighting Impact Assessment (appendix D10-10, Application Reference Number: 6.4.67) that would reduce lighting effects to human and ecological receptors such as those noted above. As summarised in Table 2-2, the proposed change is therefore not considered to result in any new or different likely significant effects to human and ecological receptors from construction lighting.

Implications of the proposed change to the assessment of effects to the tern colony at Cemlyn Lagoon

- 2.7.10 Given the location of the WNDA within the Anglesey Terns/Morwenoliaid Ynys Môn Special Protection Area and the proximity of the tern colony at Cemlyn Lagoon to the WNDA, further consideration has been given to the potential effects of the proposed change on this statutory designated site and its qualifying features (i.e. Arctic tern, *Sterna paradisaea*; common tern, *Sterna hirundo*; roseate tern, *Sterna dougallii*; and Sandwich tern, *Thalasseus sandvicensis*). Consideration has also been given to effects on Black headed gulls (*Chroicocephalus ribibundus*), which, although not a qualifying feature of the SPA do support the integrity of the site.
- 2.7.11 The potential effect of the proposed change to these receptors has been considered in the context of both the Environmental Impact Assessment and Habitats Regulations Assessment, with any new or different likely significant environmental effects to those reported in the Environmental Statement and Habitats Regulations Assessment Report (Application Reference Number: 5.2) [and HRA Addendum] assessed.

The avoidance of blasting outwith daylight hours during the tern breeding season

- 2.7.12 The proposed change would not permit blasting to occur after dusk between March to September.
- 2.7.13 No additional lighting is required and consequently, the proposed change would not alter the magnitude of visual disturbance effects to the tern colony at Cemlyn Lagoon, remaining as reported in chapter D13 of the Environmental Statement (Application Reference Number: 6.4.13) and the Shadow Habitats Regulations Assessment Report (Application Reference Number: 5.2).
- 2.7.14 Because the proposed change would not increase the overall impact of noise disturbance to the tern colony at Cemlyn Lagoon from that currently assessed in chapter D13 of the Environmental Statement (Application Reference Number: 6.4.13) and in the Shadow Habitats Regulations Assessment (Application Reference Number: 5.2), there are no new or different likely significant environmental effects.
- 2.7.15 Because the proposed change would not increase the overall impact of noise disturbance to, or lighting impacts on, the tern colony at Cemlyn Lagoon from that currently assessed in chapter D13 of the Environmental Statement (Application Reference Number: 6.4.13) and in the Shadow Habitats Regulations Assessment (Application Reference Number: 5.2), there are no new or different likely significant environmental effects as a result of the proposed change.

Implications to human health

- 2.7.16 Noise effects on health include annoyance, cardiovascular effects, learning disruption and sleep disturbance. The intermittent nature of blasting noise is considered an acute (brief) rather than a chronic (ongoing) noise exposure. As noted in table L-6 of the Health Impact Assessment Report (Application Reference Number: 8.19), learning disruption is particularly associated with acute time domains for elevated noise.
- 2.7.17 The proposed change is considered unlikely to increase learning disruption, as both the original and proposed time windows span normal school hours. Indeed, blasts that occur later in the day and after school hours can be expected to have less effect on learning disruption.
- 2.7.18 The earlier start (09:00 rather than 10:00 on weekdays and Saturdays) is considered unlikely to affect health outcomes, as most people would be about their usual daytime routines by this time. The later end to the blasting time window (19:00 rather than 16:00 on weekdays) may mean that more people experience noise from blasts undertaken in the early evening, having returned home.
- 2.7.19 The proposed change may affect the period of undisturbed sleep for off-shift construction workers accommodated at the Site Campus. These potential adverse effects to sleep disturbance are noted, but are considered within the bounds of the existing moderate adverse assessment score for noise effects from the WNDA (as set out in section D.3 of the Health Impact Assessment

Report, Application Reference Number: 8.19). The proposed change would therefore not result in a change to the findings of the Health Impact Assessment Report (Application Reference Number: 8.19).

Table 2-2 Likely new or different environmental effects

Document name	Application Reference Number	Chapter name	New or different likely significant effect	Material change/ non-material change/no change
Environmental Statement chapter D6	6.4.6	Noise and vibration	<p>Given the information presented in paragraphs 2.7.2 to 2.7.4, the proposed change would not have new or different likely significant environmental effects in terms of the noise and vibration assessment, in particular effects to human and ecological receptors due to:</p> <ul style="list-style-type: none"> • disturbance from air overpressure (including audible noise from blasting); and • disturbance from vibrations. <p>Thus, there is considered to be no new or different likely significant environmental effects to the assessment of noise and vibration and the conclusions presented in chapter of the Environmental Statement D6 (Application Reference Number 6.4.6) remain as reported.</p>	Non-material change
Environmental Statement chapter D9	6.4.9	Terrestrial and freshwater ecology	<p>As outlined in paragraphs 2.7.5 to 2.7.7, the proposed change would not significantly alter the assessment of effects to terrestrial and freshwater ecological receptors due to:</p> <ul style="list-style-type: none"> • noise disturbance; and • visual disturbance from lighting. 	Non-material change

Document name	Application Reference Number	Chapter name	New or different likely significant effect	Material change/ non-material change/no change
			<p>Given the information presented in paragraphs 2.7.2 to 2.7.7, there would be no new or different likely significant environmental effects to terrestrial and freshwater ecology assessment with respect to the other impact pathways outlined in table D9-6 of chapter D9 of the Environmental Statement (Application Reference Number: 6.4.9).</p> <p>Thus, there is considered to be no material change to the assessment of terrestrial and freshwater ecology and the conclusions presented in chapter D9 of the Environmental Statement (Application Reference Number 6.4.9) remain as reported.</p>	
Environmental Statement chapter D10	6.4.10	Landscape and visual	<p>As outlined in paragraphs 2.7.8 to 2.7.9, the proposed change would not result in any new or different likely significant environmental effects to landscape and visual receptors due to:</p> <ul style="list-style-type: none"> • visual disturbance from lighting; or • effects of sky-glow. <p>Thus, there is considered to be no new or different likely significant environmental effects to the landscape and visual assessment, and the</p>	Non-material change

Document name	Application Reference Number	Chapter name	New or different likely significant effect	Material change/ non-material change/no change
			conclusions presented in chapter D10 of the Environmental Statement (Application Reference Number 6.4.10) remain as reported.	
Environmental Statement chapter D13	6.4.13	The marine environment	<p>As outlined in paragraphs 2.7.10 to 2.7.15, the proposed change would not significantly alter the assessment of effects to seabirds (target and secondary species) due to:</p> <ul style="list-style-type: none"> • visual disturbance from lighting; and • airborne noise disturbance. <p>Thus, there is considered to be no new or different likely significant environmental effects to the assessment of the marine environment assessment and the conclusions presented in chapter D13 of the Environmental Statement (Application Reference Number: 6.4.13) remain as reported.</p>	Non-material change
Environmental Statement chapter D16	6.4.16	Combined topic effects	<p>As outlined in paragraphs 2.7.2 to 2.7.9 and this table, the proposed change would not significantly alter the assessment of effects to human and ecological receptors.</p> <p>Thus, the proposed change is not considered to have any new or different likely significant</p>	No change

Document name	Application Reference Number	Chapter name	New or different likely significant effect	Material change/ non-material change/no change
			cumulative or combined effects above that already assessed and therefore the conclusions presented in chapter D16 of the Environmental Statement (Application Reference Number: 6.4.16) remain as reported.	
Habitats Regulations Assessment Report	5.2	Appropriate assessment: Birds	<p>As outlined in paragraphs 2.7.10 to 2.7.15, the proposed change would not significantly alter the appropriate assessment in particular effects to the tern colony at Cemlyn Lagoon due to:</p> <ul style="list-style-type: none"> • visual disturbance from lighting; and • airborne noise disturbance. <p>Thus, there is considered to be no new or different likely significant environmental effects to the appropriate assessment for birds and the conclusions of the Habitats Regulations Assessment (Application Reference Number: 5.2) remain as reported.</p>	Non-material change
Health Impact Assessment Report	8.19	Noise	As outlined in paragraphs 2.7.16 to 2.7.19 the proposed change is unlikely to increase learning disruption or affect health outcomes although it is recognised that people may experience noise during the early evening, having returned home.	Non-material change

Document name	Application Reference Number	Chapter name	New or different likely significant effect	Material change/ non-material change/no change
			<p>The proposed change only has the potential to effect sleep disruption for some groups, namely young children whom have earlier bedtimes, and off-shift construction workers accommodated at the Site Campus.</p> <p>Whilst noted, the potential adverse effects associated with the proposed change are considered within the bounds of the existing moderate adverse assessment score for noise effects from the Wylfa Newydd Development Area (as set out in section D.3 of the Health Impact Assessment Report, Application Reference Number: 8.19).</p> <p>Thus, there is considered to be no new or different likely significant environmental effects to the assessment of effects to human health and the conclusions of the Health Impact Assessment Report (Application Reference Number: 8.19) remain as reported.</p>	

2.8 Schedule of engagements

Table 2-3 Schedule of engagements

Date	Event
28 June 2018	DCO application accepted for Examination
6 July to 13 August 2018	Relevant representations period
14 August 2018	<ul style="list-style-type: none"> • Horizon notification to PINS of consultation on non-material change to blasting strategy • Horizon sends consultation document for non-material change to blasting strategy to consultees specified below. Follow-up calls and meetings provided as required
28 September 2018	Consultation on non-material change to blasting strategy ends (extra time allowed for August holiday period)
W/c 1 October 2018	Horizon revises consultation document and sends to PINS as a formal request for non-material change to the blasting strategy
Oct/Nov 2018	Likely commencement of Examination based on typical 100-130 day duration of Pre-Examination period

List of specified consultees:

- Welsh Government
- Natural Resources Wales
- Isle of Anglesey Council
- Gwynedd Council
- Conwy County Borough Council
- North Wales Wildlife Trust
- RSPB Cymru
- National Trust
- Betsi Cadwaladr University Health Board
- Public Health Wales
- Welsh Ambulance Service Trust
- North Wales Police
- North Wales Fire and Rescue Service
- National Grid
- Welsh Water
- SP Manweb plc

- Magnox
- Nuclear Decommissioning Authority
- North Anglesey Partnership
- Destination Anglesey Partnership
- North Wales Economic Ambition Board
- Joint Nature Conservation Committee
- Cyngor Tref Amlwch (Town Council)
- Cyngor Cymuned Cylch-Y-Garn (Community Council)
- Cyngor Cymuned Llanbadrig
- Cyngor Cymuned Mechell
- Cyngor Cymuned Llaneilian
- Cyngor Cymuned Rhosybol
- Talybolion Local Members
- Twrcelyn Local Members
- Local residents – via Horizon’s Near Neighbour Database which is used to keep local people up to date with activity on the Wylfa Newydd site. This approach is proportionate to the nature and scale of the proposed non-material changes, and is consistent with the historic approach for communications regarding onsite activity. In total, there are 898 residential addresses in the mailing area.
- Persons with an interest in land – Horizon will consult all owners/occupiers, owners, occupiers and those with an interest in land or rights over land within the Main Site area (including those properties within the identified noise buffer area). Again, this approach is proportionate to the nature and scale of the proposed non-material changes, and is consistent with historic approaches (being the same as the PAC4 consultation carried-out in February 2018). In total, there are 188 properties identified.

2.9 Schedule of consequential amendments to application documents

Table 2-4 Schedule of consequential amendments to application documents

Application document name	Application Reference Number	Section of document	Version to be amended	Description of amendment
Environmental Statement appendix B6-2:	6.2.21	5.5	1.0	Update to blasting schedule (i.e. working

Application document name	Application Reference Number	Section of document	Version to be amended	Description of amendment
Noise and Vibration Modelling and Assessment Methodology Report				hours for blasting)
Environmental Statement chapter D1: Proposed development	6.4.1	1.6	1.0	Update to blasting schedule (i.e. working hours for blasting)
Environmental Statement chapter D9: Terrestrial and Freshwater ecology	6.4.9	9.5	1	Update assessment to include additional text provided in section 2.6 of this document
Environmental Statement chapter D13: The marine environment	6.4.13	13.5	1.0	Update to blasting schedule (i.e. working hours for blasting)
Main Power Station Site sub-Code of Construction Practice	8.7	8.2	1.0	Update to blasting schedule (i.e. working hours for blasting)
Marine Works sub-Code of Construction Practice	8.8	4.2	1.0	Update to blasting schedule (i.e. working hours for blasting)

3 References

Table 3-1 Schedule of references

ID	Reference
RD1	The Planning Inspectorate. 2018. Advice Note 16: How to request a change which may be material. [Online]. [Accessed: June 2018]. Available from: https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2015/07/Advice-note-16.pdf
RD2	British Standards Institution. 2008. BS 6472-2 <i>Guide to Evaluation of human exposure to vibration in buildings. Blast-induced vibration</i> . London: British Standards Institution.