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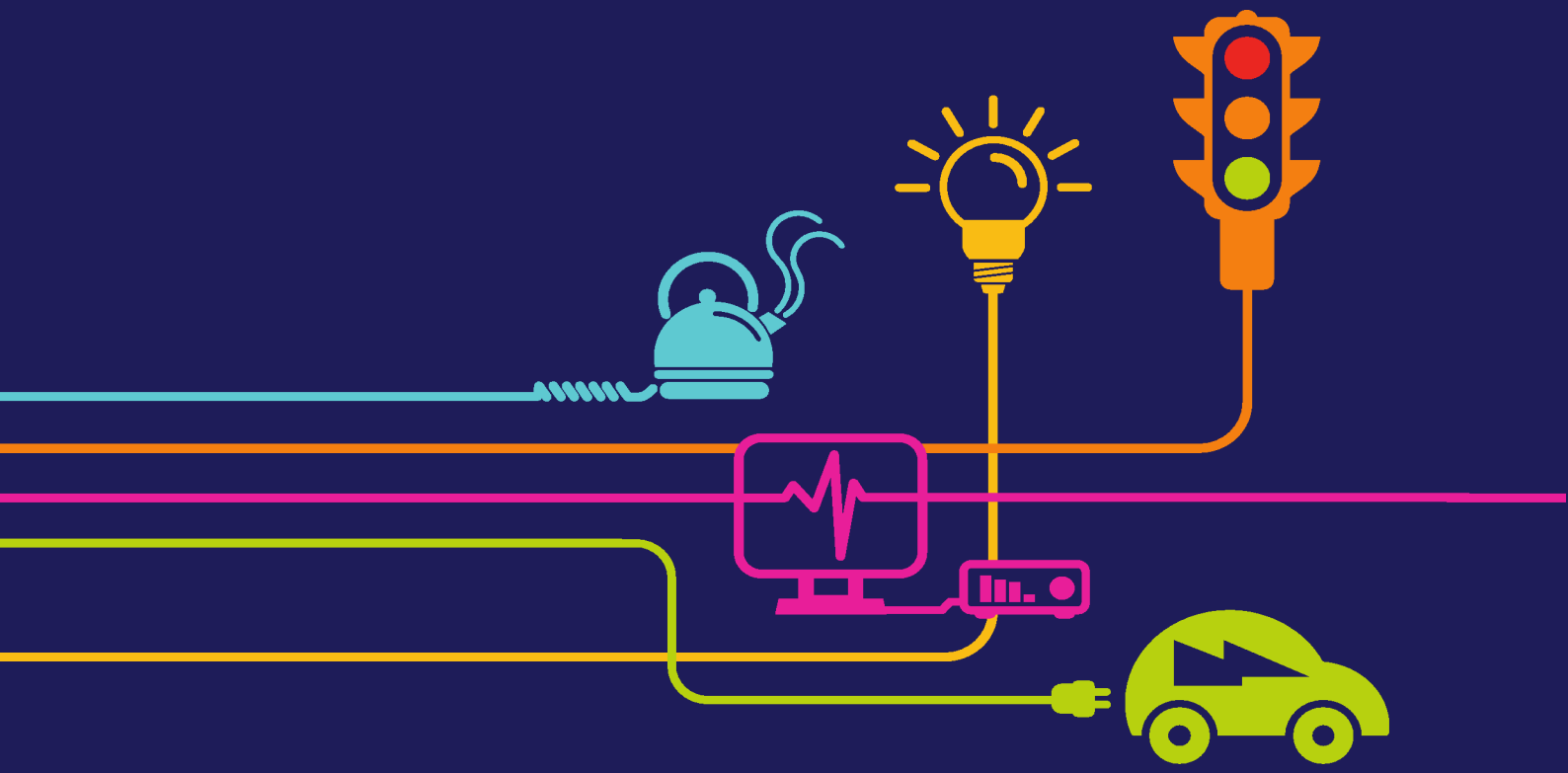
DOCUMENT 5.24

Environmental Statement Document 5.24 Statement of Statutory Nuisance

National Grid (North Wales Connection Project)

Regulation 5(2)(q) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009



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Document 5.24 Statement of Statutory Nuisance

National Grid
National Grid House
Warwick Technology Park
Gallows Hill
Warwick
CV34 6DA

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Organisation		AECOM	
Author		Jane Knowles	
Approved by		Nigel Pilkington	
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1 Introduction

1.1 INTRODUCTION

1.1.1 National Grid Electricity Transmission (plc) (National Grid) is seeking powers to construct, operate and maintain a new 400,000 volt (400 kilovolts (kV)) connection between Wylfa Substation and Pentir Substation, together with various associated development and other works ("The Proposed Development").

1.1.2 This report presents the Statement of Statutory Nuisance for the Proposed Development to accompany the application for a Development Consent Order.

1.2 PURPOSE OF THIS REPORT

1.2.1 The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (Ref 1) require DCO applications to be accompanied by (among other documents):

'a statement whether the proposal engages one or more of the matters set out in section 79(1) (statutory nuisances and inspections therefore) of the Environmental Protection Act 1990(b), and if so how the applicant proposes to mitigate or limit them' (Provision 5 (2)(f)).

1.2.2 This report therefore sets out the matters in Section 79(1) of the Environmental Protection Act (EPA) 1990 (Ref 2) in respect to statutory nuisance, the potential of the Proposed Development to cause statutory nuisance and the measures that have been incorporated into the Proposed Development to mitigate any such potential nuisances.

1.2.3 This statement has been prepared having regard to the requirements of National Policy Statement for Energy EN-1 (Ref 3) which states under paragraph 4.14.2 that

'it is very important that, at the application stage of an energy NSIP, possible sources of nuisance under section 79(1) of the 1990 Act and how they may be mitigated or limited are considered by the IPC so that appropriate requirements can be included in any subsequent order granting development consent.'

1.3 THE PROPOSED DEVELOPMENT

1.3.1 This Statement of Statutory Nuisance accompanies an application by National Grid Electricity Transmission (plc) (National Grid) to seek powers to construct, operate and maintain a new 400,000 volt (400 kilovolt (kV)) connection between Wylfa Substation and Pentir Substation, together with various associated development and other works ('The Proposed Development'). This would facilitate the export of power from the proposed Wylfa Newydd Power Station. The Proposed Development in its entirety is known as the North Wales Connection Project.

1.3.2 The Proposed Development consists of the following principal components:

- modifications to the existing substation at Wylfa;
- sections of new 400 kV overhead line (OHL) between Wylfa Substation and Braint Tunnel Head House (THH) and Cable Sealing End Compound (CSEC) on Anglesey, including modifications to parts of the existing 400 kV OHL between Wylfa Substation and Pentir Substation ;
- Braint THH and CSEC, including a permanent access track;
- a tunnel between Braint and Tŷ Fodol THHs;
- Tŷ Fodol THH and CSEC including a permanent access track;
- a new section of OHL connection between Tŷ Fodol THH and CSEC and Pentir Substation;
- an extension to the existing substation at Pentir; and
- temporary construction compounds, access tracks, construction working areas localised widening of the public highway and third party works that are required to construct the infrastructure listed above.

1.3.3 A more detailed description of the Proposed Development is provided in Chapter 3, Description of the Proposed Development (**Document 5.3**) and Chapter 4, Construction, Operation, Maintenance and Decommissioning (**Document 5.4**) of the Environmental Statement (ES).

2 Environmental Protection Act 1990

2.1 SECTION 79(1) OF THE ENVIRONMENTAL PROTECTION ACT 1990

2.1.1 Section 79(1) of the EPA 1990 (Ref 2) states that the following matters constitute "statutory nuisances":

'a) any premises in such a state as to be prejudicial to health or a nuisance;

b) smoke emitted from premises so as to be prejudicial to health or a nuisance;

c) fumes or gases emitted from premises so as to be prejudicial to health or a nuisance;

d) any dust, steam, smell or other effluvia arising on industrial, trade or business premises and being prejudicial to health or a nuisance;

e) any accumulation or deposit which is prejudicial to health or a nuisance;

(ea) any water covering land or land covered with water which is in such a state as to be prejudicial to health or a nuisance;

f) any animal kept in such a place or manner as to be prejudicial to health or a nuisance;

(fa) any insects emanating from relevant industrial, trade or business premises and being prejudicial to health or a nuisance;

(faa) any insects emanating from premises and being prejudicial to health or a nuisance;

(fb) artificial light emitted from premises so as to be prejudicial to health or a nuisance;

(fba) artificial light emitted from—

(i) premises;

(ii) any stationary object,

so as to be prejudicial to health or a nuisance;

g) noise emitted from premises so as to be prejudicial to health or a nuisance;

(ga) noise that is prejudicial to health or a nuisance and is emitted from or caused by a vehicle, machinery or equipment in a street; and

h) any other matter declared by any enactment to be a statutory nuisance.

and it shall be the duty of every local authority to cause its area to be inspected from time to time to detect any statutory nuisances which ought to be dealt with under section 80 below or sections 80 and 80A below and, where a complaint of a statutory nuisance is made to it by a person living within its area, to take such steps as are reasonably practicable to investigate the complaint.'

2.1.2 Sections 79(2) and onwards contain exceptions to the above statutory nuisances.

2.2 STATUTORY NUISANCE AND ENVIRONMENTAL EFFECTS

2.2.1 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) (Ref 4) require (among other things) the following to be included within an ES:

'A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors'.

'A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:

(a) the existence of the development;

(b) the use of natural resources;

(c) the emission of pollutants, the creation of nuisances and the elimination of waste,'

2.2.2 The ES (**Volume 5.0**) prepared for the Proposed Development therefore contains a description of the aspects of the environment likely to be significantly affected by the development, including 'population' and resulting from the 'creation of nuisances'. It is therefore appropriate to use the assessment of the effects reported within the ES (**Volume 5.0**) as indicative of the potential for a statutory nuisance, under the EPA 1990 (Ref 2), to be caused.

2.2.3 Potential health effects or nuisance due to emissions to air, water, land quality, waste and noise, are considered in related chapters of the ES (**Volume 5.0**). Chapter 14, Air Quality and Emissions (**Document 5.14**) has assessed the potential effects associated with the generation and dispersal of dust and airborne particulate matter as well as emissions from equipment on site and construction traffic (nuisance's b, c and d as identified in the Regulations). Lighting is considered in Chapter 7, Landscape Assessment (**Documents 5.7**) and Chapter 8, Visual Assessment (**Documents 5.8**) (fb) and noise (g and ga) in Chapter 15, Construction Noise and Vibration (**Document 5.15**) and Chapter 16, Operational Noise and Vibration (**Document 5.16**) of the ES.

3 Potential To Cause Statutory Nuisance

3.1 INTRODUCTION

3.1.1 Matters that have the potential to constitute "statutory nuisances" that are not applicable to the Proposed Development have been screened out of this Statement. Paragraphs (a), (b), (f), (fa) and (h) of Section 79(1) of the EPA 1990 (Ref 2) are deemed to not be applicable to the Proposed Development and are therefore not considered within this Statement due to the following:

- (a) There would be no premises in such a state to as to be prejudicial to health or nuisance;
- (b) No burning of waste materials would to be permitted on site. This is part of measure AE13 of the Construction Environmental Management Plan (CEMP) (**Document 7.4**). The CEMP would be secured by Requirement 6 of the Draft DCO (**Document 2.1**). There would be no burning during operation, maintenance or decommissioning therefore no smoke would be generated;
- (f) No animals would be kept on-site as part of the Proposed Development;
- (fa) No materials would be stored on-site which could attract insects which could cause a nuisance or be prejudicial to human health. Any food waste from the construction compounds would be removed off-site;
- (faa) any insects emanating from premises and being prejudicial to health or a nuisance; and
- (h) There are no other matters or elements of the Proposed Development which could be considered to be a statutory nuisance.

3.1.2 The only matters included in Section 79(1) of the EPA 1990 (Ref 2) that could potentially arise as a consequence of the Proposed Development are:

- (c) and (d) relating to air quality;
- (e) relating to waste;

- (ea) any water covering land or land covered with water which is in such a state as to be prejudicial to health or a nuisance;
- (fb) relating to artificial light;
- (fba) artificial light emitted from—
  - premises;
  - any stationary object; and
- (g) and (ga) relating to noise (which for the purposes of the above, includes vibration).

3.1.3 The following sections outline the activities that have the potential to cause a statutory nuisance under the EPA 1990 (Ref 2) and details mitigation measures that have been incorporated into the Proposed Development to prevent any such potential nuisance.

3.2 FUMES OR GASES, DUST, STEAM, SMELL OR OTHER EFFLUVIA

Construction

3.2.1 There is limited potential for the following matters covered in Section 79(1) of the EPA 1990 (Ref 2) to arise: (c) fumes or gases emitted from premises and (d) any dust, steam, smell or other effluvia. The potential for these nuisances is detailed in ES Chapter 14, Air Quality and Emissions (**Document 5.14**).

3.2.2 Construction activities, such as earthworks, construction of pylon foundations, erection of the pylons, construction of building foundations, stockpiling, tunnelling, structural building works and trackout have the potential to generate dust emissions and dust deposition, which could have the potential to affect human and ecological receptors in the vicinity of the Proposed Development and cause nuisance.

3.2.3 A Dust Risk Assessment has therefore been undertaken to define appropriate site specific environmental measures (see section 3.2.11). As outlined in ES Chapter 14, Air Quality and Emissions (**Document 5.14**) residual effects as a result of construction dust and PM_{10} emissions would not be significant, and therefore would not constitute a statutory nuisance.

3.2.4 Potential construction phase road traffic emissions impacts have been mitigated through the planning of designated construction traffic routes to avoid congested and/or air quality sensitive locations, where appropriate. Potential construction phase emergency generator emission impacts have

been mitigated through the control and management measures as set out in the CEMP (**Document 7.4**) which would be secured by Requirement 6 of the Draft DCO (**Document 2.1**).

3.2.5 As outlined in Chapter 14, Air Quality and Emissions (**Document 5.14**) residual effects as a result of construction phase road traffic and emergency generator emissions are considered to be not significant, and therefore would not constitute a statutory nuisance.

3.2.6 Therefore there would be no statutory nuisance related to air quality matters during the construction phase of the Proposed Development.

Operation and Maintenance

3.2.7 As outlined in ES Chapter 14, Air Quality and Emissions (**Document 5.14**), the operational air quality impact of the Proposed Development has been formally scoped out of the assessment through the Secretary of State's (SoS) scoping response. Operational effects are not anticipated to generate dust or emissions from vehicles or energy generation plant in sufficient quantities to have a significant effect, and therefore would not constitute a statutory nuisance.

3.2.8 The maintenance of the Proposed Development could range from reasonably frequent checks and minor repairs to very infrequent major refurbishment works. Minor maintenance work is not likely to generate emissions to air that would result in a significant effect as works, are anticipated to be infrequent, local in extent, and short-term in nature. Any emissions released would likely be of a magnitude that is undetectable from the natural variation in yearly air quality conditions. Major refurbishment works could generate levels similar to those arising during construction, and construction effects can therefore be considered a proxy for maintenance effects. However, such works would be subject to similar emissions control measures proposed in the CEMP (**Document 7.4**). As the construction phase air quality assessment concluded that effects are considered to be not significant, and therefore would not constitute a statutory nuisance, the same can reasonably be concluded for the maintenance period.

Decommissioning

3.2.9 As outlined in Chapter 14, Air Quality and Emissions of the ES (**Document 5.14**), potential air quality impacts associated with decommissioning of the Proposed Development would be similar, but ultimately less than those associated with the construction phase, and as such the assessment of construction air quality effects can be taken as a proxy for decommissioning stage effects due to the more limited earthworks and substantially fewer

vehicle movements. Decommissioning works would be subject to similar emissions control measures proposed in the CEMP (**Document 7.4**). Therefore decommissioning phase effects would not constitute a statutory nuisance.

Mitigation

3.2.10 Mitigation measures relevant to construction dust and particulate emissions set out within the CEMP (**Document 7.4**) are listed as follows:

- **AE11**[1] A certain amount of dust may be produced during dry weather conditions but every effort will be made to keep this to a minimum. This will be achieved by visual assessment of dust emissions and application of control measures as appropriate. Precautions will also be taken to minimise the deposit of mud and dust on the public roads as a result of vehicles arriving and leaving site (referred to as 'track out'). When this cannot be avoided, appropriate control measures will be applied.
- **AE12**: A Dust Management Plan (DuMP) will be prepared and will include measures to control dust during the construction of the Proposed Development.
- **AE13** The DuMP will contain the following general measures as necessary:
    - where there is visible dust generation from working areas and stockpiles, during prolonged periods of dry weather, local spraying with water will be considered, using bowsers or temporary static sprays, as necessary, to suppress dust generation, where this is not likely to lead to other effects as a result of sediment laden runoff;
    - erect solid barriers to enclose dusty activities, or screen off (to at least as high as any stockpiles on site) near to sensitive receptors. Keep barriers and screens clean using wet methods;

[1] The mitigation codes for each of the control and management measures correspond to the codes presented in the CEMP and used in the technical chapters of the Environmental Statement (ES) (**Documents 5.7 to 5.18**).

- appropriate speed limit will be enforced on site to minimise dust generation (5-20 miles per hour (mph));
- the use of mechanical road sweepers on public roads at road crossings, construction compounds and bellmouths to clean roads (of dust and mud deposits) at appropriate intervals;
- ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport;
- implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site) where reasonably practicable at construction compounds. Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits;
- inspect on-site access tracks for integrity and instigate necessary repairs to the surface as soon as reasonably practicable. Record all inspections of access tracks and any subsequent action in a site log book;
- with the exception of stockpiles with a lifetime of less than 3 months, all stockpiles would be seeded with an appropriate seed mix to the existing habitat; and
- no burning of waste materials to be permitted on site.

- **AE14** The DuMP will contain the following measures in relation to site layout:
  - the site layout will be planned so that machinery and dust-generating activities, such as soil screening, are located as far away from sensitive receptors as practicable. Where practical materials that have a potential to produce dust will be removed from site as soon as possible, unless being re-used on site; and
  - hard surfacing will be provided at all bellmouths.
- **AE15**: The DuMP will contain the following measures in relation to storage and handling of materials:
  - handling and transfer of soil and dusty materials will be controlled to reduce dust generation. During material handling operations the number of handling operations will be

kept to a minimum to ensure that dusty material is not moved or handled unnecessarily;

- sand and other aggregates will be covered, bulk cement and other fine powder materials will be delivered in enclosed tankers and stored with suitable emission control systems to prevent escape of material;
- for smaller supplies of fine powder materials bags will be sealed after use and stored appropriately to prevent dust;
- minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate;
- when loading vehicles in the vicinity of receptors and under dry windy conditions conducive to dust dispersal, material handling methods will be used that minimise the generation of airborne dust. Drop heights will be kept to a minimum. Where there are visible dust issues and under prolonged dry conditions sources will be dampened down;
- soils will be managed in line with measure **SM12** (see section 3.3.7 for full details of this measure); and
- avoid scabbling (roughening of concrete surfaces), if possible.

- **AE31** a Stakeholder Communication Plan will be implemented that will include engagement with the community before and during work on site. The Stakeholder Communication Plan will:
  - display the name and contact details of person(s) accountable for air quality and dust issues on the site boundary and also display the head or regional office contact information;
  - record any dust and air quality complaints, identified causes and appropriate measures taken to reduce emissions. The contractor will make the complaints log available to the respective local authority when asked; and
  - record any exceptional incidents that cause dust and/or air emissions, either on- or offsite, and the action taken to resolve the situation in the log book.

- **AE41** As set out in section 2.6 the contractor will undertake inspections, which will include monitoring compliance with the CEMP. Inspections and monitoring will include:

    - Agree a representative dust monitoring scheme that is representative of the dust risk at relevant worksites. This could include dust deposition, dust flux, or real-time PM_{10} continuous monitoring, which will be agreed with the Local Authority. Where possible commence baseline monitoring at least three months or as soon as practicable thereafter before work commences on site;

    - Monitoring of dust, record inspection results, and make the log available to the relevant local authority when asked; and

    - Increase the frequency of site inspections by the person accountable for air quality and dust issues on site when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

3.2.11 The Mitigation measures relevant to construction road traffic and emergency generator emissions are set out within the CEMP (**Document 7.4**) are listed as follows:

- **AE21** The Outline Construction Traffic Management Plan (OCTMP) (**Document 7.5**) implements the control and management of vehicles to and from site including the delivery and removal of goods and materials. In addition to the OCTMP the following measures will be implemented:

    - using low emission vehicles and plant fitted with catalysts, diesel particulate filters or similar devices where practicable;

    - ensuring that plant is well maintained, with routine servicing of plant and vehicles to be carried out in accordance with manufacturer's recommendations;

    - ensuring that all vehicles hold current certification and that they comply with the exhaust emission regulations for their class;

    - ensuring all vehicles switch off engines when not in use (no idling vehicles);

- reduce the use of diesel or petrol powered generators and using mains electricity or battery powered equipment where practicable; and
- producing a Travel Plan that supports and encourages sustainable travel (public transport, cycling, walking, and car-sharing).

3.2.12 These measures have been incorporated into the CEMP (**Document 7.4**) which would be secured by Requirement 6 of the Draft DCO (**Document 2.1**).

Conclusion

3.2.13 As outlined in Chapter 14, Air Quality and Emissions of the ES (**Document 5.14**), with the implementation of mitigation measures, there would be no significant air quality effects, and as such no statutory nuisance as a result of fumes or gases, dust, steam, smell or other effluvia.

3.3 ACCUMULATION OR DEPOSITS

Construction

3.3.1 Construction works for the Proposed Development would generate substantial quantities of materials to be either re-used, recycled or disposed of, both on and off site.

3.3.2 An Outline Materials Management Plan (OMMP) (**Document 7.12**) secured by Requirement 6 of the Draft DCO (**Document 2.1**) has been produced, which sets out the strategy for the management of materials (e.g. spoil) which are likely to arise as a result of the construction of the Proposed Development. The OMMP documents the assessment and classification procedures to ensure spoil would be taken to the most appropriate site, along with the requirements of monitoring and validation of the removal of the spoil from the site.

3.3.3 In addition the Outline Waste Management Plan (OWMP) (**Document 7.11**) sets the framework for the management of wastes during the construction of the Proposed Development.

3.3.4 No other accumulations or deposits that are likely to be prejudicial to health or a nuisance would occur. Materials stored on-site would be subject to the measures set out in the CEMP (**Document 7.4**) to ensure that the potential for wind-blown dust is limited. Any soil affected by contamination would be appropriately identified, assessed and managed to ensure that it does not present a health risk, in accordance with the procedures defined in the

CEMP (**Document 7.4**) measures CL11, CL21 and CL22 (see paragraph 3.3.7).

Operation and Maintenance

3.3.5 No accumulations or deposits that would be likely to be prejudicial to health or a nuisance would occur during the operation or maintenance of the Proposed Development.

Decommissioning

3.3.6 During decommissioning of the Proposed Development no accumulations or deposits that would be likely to be prejudicial to health or create a nuisance would occur, as materials stored on site would be minimal, due to the limited earthworks. Therefore it is very unlikely that this would cause a nuisance.

Mitigation

3.3.7 Mitigation measures would be implemented to limit any potential for nuisances. These measures are identified in the CEMP (**Document 7.4**) and include, (but are not limited to):

- **CL11** Where required, an appropriate intrusive ground investigation will be undertaken in accordance with all relevant guidance and legislation including BS 10175:2011, Environment Agency/Defra CLR series of reports. The ground investigation will be undertaken to achieve the following objectives:
    - determine the ground conditions to allow design of foundations and structures;
    - determine the presence, if any, of shallow mine workings; a Coal Mining Risk Assessment Report will be completed once the ground investigation has taken place;
    - determine the groundwater regime and assess the need for dewatering;
    - assess the nature, extent and magnitude of any soil and groundwater contamination present;
    - assess the risks (if any) from potential contaminants to human health and Controlled Waters; and,
    - assess the ground gas regime.

- **CL21** Where required a watching brief will be maintained during construction works to confirm the absence of potential sources of contamination such as Made Ground, visual or olfactory evidence of hydrocarbons. These areas of potentially contaminated ground and/ or water will be sampled and undergo appropriate sampling and laboratory analysis.

- **CL22** Subsequently a risk assessment will be undertaken in accordance with the EA report 'Model Procedures for the Management of Land Contamination (CLR 11) to identify if these areas of potential contaminants pose a risk to construction workers or site operators and Controlled Waters. If areas of the site are shown to pose a risk, any remedial measures required will be implemented. A remediation strategy will be devised and discussed with the regulatory authorities prior to any remedial works. The determination of the risks through ground investigation and risk assessment, and the potential remediation of areas of the site may result in the reduction of the significance, or even removal, of some of the potential effects identified. Should any contaminated material that is considered to pose a risk be identified it will be treated and/ or disposed of appropriately.

- **SM11** Prior to construction, more site/soil specific measures to protect soils will be set out in a detailed Soil Management Plan (SMP), based upon the Outline Soil Management Plan (**Document 7.10**) and supplemented, by additional survey data, where required;

- **SM12** An Outline Soil Management Plan (**Document 7.10**) has been produced and includes the following measures, in accordance with Defra guidance[2]:

    - construction traffic will be restricted to operating on designated working areas and not on unprotected soils;

    - topsoil stripping will be restricted to the width of the permanent and temporary elements of the Proposed Development, thereby minimising disturbance to the integrity of the soil and its structure;

[2] Defra (2009) Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. pp64. Available at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/69308/pb13298-code-of-practice-090910.pdf

- soil removed will be stored near to its original location within the working area so that it can be reinstated in a similar location within the same plot;
- appropriate geotextile membranes, wooden matting or aluminium/plastic trackways would be used over particularly sensitive soils/areas or where stone access tracks are not be required;
- in peaty and soft saturated clay soils, where the use of geotextile membranes is not appropriate, wheeled vehicles will be fitted with low ground pressure bearing pneumatic tyres to allow a greater distribution of weight;
- soil loosening techniques such as deep-tine cultivation will be used where required to break up any compaction which has occurred;
- subsoil and different superficial deposits will be stored separately to prevent mixing and would be reinstated in reverse order of excavation;
- topsoil storage bunds will be restricted to a maximum height of 4 m to minimise risk of compaction and development of adverse conditions within the topsoil heap that may affect structure and fertility;
- topsoil and subsoil movements will only be undertaken in suitable conditions, for example, when not waterlogged, and using appropriate techniques to avoid long-term damage to the soil structure from compaction;
- no soil will be moved from one land holding to another;
- soil stabilising methods will be undertaken in accordance with the SMP to reduce the risk of erosion, the creation of leachate and potential water quality issues;
- early re-seeding of the reinstated ground with an appropriate seed mix to the existing habitat will be undertaken to help re-establish and stabilise the structure of the topsoil;
- Where soils are stockpiled for the short term (i.e. less than three months), they will be covered to reduce the risk of wind and water erosion. Soil stockpiles that are in place for longer periods will generally be seeded to stabilise the surface and

reduce the risk of wind and water erosion. Appropriate measures, for example silt fences, will be placed around the stockpiles to prevent sediment-laden runoff reaching surface water features until the vegetation is established. Stockpiles will managed to avoid the establishment of weeds either through removal or treatment; and

- excavated soils will be replaced in situ and not moved from one plot to another where appropriate.

- **WE51** A Drainage Management Plan (DMP) will be prepared prior to the commencement of works. The DMP will specify measures to minimise the impact of the construction on existing drainage systems. This will be developed following detailed drainage investigations and hydrological assessments, which will determine potential location specific risks in relation to the water and natural environment, and identify appropriate control measures to reduce the risks. A phased approach may be taken to the development of the DMP to reflect the phasing of the construction programme and the different elements of the Proposed Development.

- **WE23** Generic mitigation measures within the Pollution Incident Control Plan will include (as necessary):

  - fuels and oils at the construction compounds, on site and at work areas to be managed in accordance with the Control of Pollution (Oil Storage) (Wales) Regulations 2016 and in accordance with the GPP2 Above Ground Oil Storage Tanks;

  - fuel to be stored within secure bunded fuel tanks with an impermeable bund capacity of 110% of the tank volume;

  - chemicals to be stored in accordance with the Control of Substances Hazardous to Health (COSHH) Regulations i.e. in a secure COSHH Store including an impermeable storage area with secondary containment for spill management;

  - suitable quantities of pollution control equipment such as sorbent pads, sorbent granules, booms or similar material to be readily available at the temporary construction compounds, on site and at work areas at all times and to be regularly checked;

  - spillage kits will be positioned across the site and at vulnerable locations as required and staff will be trained in

their use. The kits will be checked regularly and replaced after an event;

- "Emergency Grab Packs" or spill kits to be carried in site vehicles and mobile plant and larger kits with fuel bowsers and emergency vehicles;
- emergency communications (mobile phones or radios) to be carried with relevant personnel;
- all plant and equipment to be inspected before use on site and maintenance and servicing records checked;
- all static plant, such as pumps and generators, to have integral driptrays (be self bunded) where possible or as a second preference external drip trays that are to be checked daily;
- mobile plant are to be maintained in good working order. Larger items of plant such as excavators to undergo daily recorded inspections by a competent person (usually the operator) for any defects such as leaking hoses. Where defects are evident the item of plant shall be removed from site immediately and serviced or replaced as soon as possible;
- no refuelling of mobile plant shall be undertaken within 10 m of a watercourse or waterbody, 50 m of a known abstraction borehole or within Flood Zone C2 without the prior agreement of the NRW;
- fuel and chemical storage to be located a minimum of 10 m away from a watercourse or waterbody, 50 m from an abstraction borehole and within Flood Zone A;
- where vehicle wash facilities are provided, no chemicals or grit will be used and silt traps/oil interceptors will be installed in accordance with PPG6 Working at Construction and Demolition Sites and GPP13 Vehicle Washing and Cleaning;
- appropriate method statements will be in place prior to undertaking maintenance of vehicles at designated areas in the temporary construction compounds only;
- for operations using concrete, grout and other cement-based products, mixing of concrete and designated contained

concrete washout areas will be provided in accordance with good practice guidance at least 10 m from any watercourse or waterbody or surface water drain to minimise the risk from pollution and located within Flood Zone A;

- use of corrosion resistant concrete formulas for pylon foundations will aid management of effects associated with changes to water quality through contamination. All concrete pours would be contained within shuttering or dry excavations (with geotextile) and pre-cast concrete will be used where possible;
- machinery which remains on site overnight will be kept more than 10 m from drains/watercourses or waterbodies, and outside Flood Zone C2, to reduce any risk of contamination;
- construction waste/debris will be prevented from entering any waterbody or sensitive habitats through observing the appropriate stand-off distances between works and watercourses; and
- works in or immediately adjacent to watercourses will be minimised as far as possible, and where not possible, periods of dry weather will be preferred for working. The scope and timing of all in channel works will be agreed with NRW and or LLFA.

- **AE13** The DuMP will contain the following general measures as necessary:
  - where there is visible dust generation from working areas and stockpiles, during prolonged periods of dry weather, local spraying with water will be considered, using bowsers or temporary static sprays, as necessary, to suppress dust generation, where this is not likely to lead to other effects as a result of sediment laden runoff;
  - erect solid barriers to enclose dusty activities, or screen off (to at least as high as any stockpiles on site) near to sensitive receptors. Keep barriers and screens clean using wet methods;
  - appropriate speed limit will be enforced on site to minimise dust generation (5-20 mph);

- the use of mechanical road sweepers on public roads at road crossings, construction compounds and bellmouths to clean roads (of dust and mud deposits) at appropriate intervals;
- ensure vehicles entering and leaving sites are covered to prevent escape of materials during transport;
- implement a wheel washing system (with rumble grids to dislodge accumulated dust and mud prior to leaving the site) where reasonably practicable at construction compounds. Ensure there is an adequate area of hard surfaced road between the wheel wash facility and the site exit, wherever site size and layout permits;
- inspect on-site access tracks for integrity and instigate necessary repairs to the surface as soon as reasonably practicable. Record all inspections of access tracks and any subsequent action in a site log book;
- with the exception of stockpiles with a lifetime of less than 3 months, all stockpiles would be seeded with an appropriate seed mix to the existing habitat; and
- no burning of waste materials to be permitted on site.

3.3.8 An OWMP (**Document 7.11**) has been produced. The OWMP (**GP814**) sets the framework for the management of wastes generated during the construction of the Proposed Development. It documents the decisions taken during the planning and design stages to minimise construction waste and sets objectives and targets for the main waste types. The contractors will prepare and submit a Site Waste Management Plan (SWMP) which will be in accordance with the following, as set out in the OWMP:

- responsibilities within the construction team for waste management;
- the types of waste (including invasive plant material) and the quantities likely to be generated;
- measures to be adopted during construction to reduce waste generated;
- opportunities for recycling and/or reuse;
- proposed treatment and disposal sites together with details of their Environmental Permit; and

- provisions for staff training and use of the SWMP.

Conclusion

3.3.9 The mitigation measures described in the CEMP (**Document 7.4**), the OWMP (**Document 7.11**) and the OMMP (**Document 7.12**), the risk of accumulation of excavated materials and waste or deposits in watercourses are not predicted to cause a nuisance or be prejudicial to health during the construction, maintenance, operation or decommissioning of the Proposed Development.

3.4 ARTIFICIAL LIGHT

Construction

3.4.1 During construction of the Proposed Development, temporary artificial lighting would be required to illuminate the construction site including at individual pylon locations and at construction compounds to ensure works can be undertaken safely and to provide security to the site.

3.4.2 Winter working may require task-specific lighting due to the short day lengths when lighting would be required at the beginning and end of the day. In the main lighting would only be used when required during working hours for particular activities, unless otherwise stated and would comprise lighting of work areas and access and egress with low level directional lighting which would not be towards sensitive receptors.

3.4.3 As 24 hour working would be required at Braint and Ty Fodol Construction Compounds during construction of the tunnel, temporary artificial lighting would be required at these locations through-out the night. .

3.4.4 With mitigation in place as detailed in Section 3.4.8, the potential for this temporary lighting to cause a nuisance would be very low.

Operation and Maintenance

3.4.5 Lighting of the Braint and Tŷ Fodol THH & CSECs at night would be limited to security lights under normal operational conditions, with additional portable lighting used under maintenance activities as and when required. There would be no additional lighting installed at either Wylfa or Pentir Substation.

3.4.6 The limited lighting (visibility and time when lighting would be in use) provided at these sites would be unlikely to cause a nuisance.

Decommissioning

3.4.7 Lighting requirements associated with decommissioning of the Proposed Development would be similar, but ultimately less than those required for the construction phase. The tunnel would be left in situ therefore there would be no need for any 24 hour lighting after decommissioning of the tunnel. Therefore it would be very unlikely that this temporary lighting would cause a nuisance.

Mitigation

3.4.8 The following measures would be implemented, as described in the CEMP (**Document 7.4**) which would be secured by Requirement 6 of the Draft DCO (**Document 2.1**):

- **GP85** Construction compounds will not be lit at night outside of the working hours identified for the particular activity, except for welfare and site security cabins, which will include low level lighting. Motion sensor lighting will be used in areas of high security risk;

- **GP86** Site or welfare cabins, equipment and lighting will be sited so as to minimise visual intrusion insofar as is consistent with the safe and efficient operation of the work site. Site lighting will be positioned and directed to reduce glare and nuisance to residents. Winter working may require task-specific lighting due to the short day lengths when lighting would be required at the beginning and end of the day. Lighting will be used only when required during working hours for particular activities, unless otherwise stated and will comprise lighting of work areas and access and egress with low level directional lighting which is not towards sensitive receptors; and

- **GP87** Implementation will comply with the Institute of Lighting Engineers Guidance Notes for the Reduction of Obtrusive Light (2011) in so far as it is reasonably practicable and applicable to construction works. When lighting is necessary, appropriate lighting and luminaires will be used to reduce the impact of lighting on ecological resources, including nocturnal species. Lighting will be designed to minimise spillage into surrounding habitats, such as sensitive watercourses, hedgerows and woodland edges to avoid disturbance to wildlife. Guidance for the reduction of obtrusive light issued by the Institute of Lighting Professionals (ILP, 2014) and guidance to help minimise the impact of artificial lighting on bats (Bat Conservation Trust, 2014) will be followed in so far as it is

reasonably practicable and applicable to do so in relation to construction works.

Conclusion

3.4.9 The mitigation measures committed to in the CEMP (**Document 7.4**), which would be implemented during construction and the design and operation of lighting required during the Proposed Developments operational and maintenance phase are sufficient to ensure that a statutory nuisance would be unlikely to occur as a result of artificial light.

3.5 NOISE

3.5.1 There could be the potential for the following matters covered in Section 79(1) of the EPA 1990 (Ref 2) to arise: g) noise emitted from premises and (ga) noise emitted from or caused by a vehicle, machinery or equipment in a street due to the Proposed Development.

Construction

3.5.2 The potential for construction phase nuisances are covered in Chapter, 15 Construction Noise and Vibration of the ES (**Document 5.15**).

3.5.3 As outlined in Chapter 15, Construction Noise and Vibration of the ES (**Document 5.15**) impacts resulting from the construction compounds, substation works, the installation of access tracks, culverts and bridges, conductor stringing, shaft construction works and tunnelling related works within the Braint Construction Compound, drill and blast shaft construction works and tunnelling related works at Tŷ Fodol Construction Compound, noise from the underground tunnelling works and traffic on the local road network are not predicted to be significant with mitigation in place. Therefore there would be no statutory nuisance in terms of noise and vibration from these sources. For receptors that are affected by different scenarios assessed in the ES, the worst case has been presented in the following paragraphs.

3.5.4 Significant noise effects due to the installation of pylon foundations, the dismantling of existing pylons, and traffic on access tracks have been predicted as follows.

3.5.5 The noise and vibration assessment from pylon construction works has predicted that a major adverse effect would be experienced at one receptor and that twenty four receptors would experience moderate effects due in the main from noise from piling.

3.5.6 The assessment of construction noise resulting from the installation of pylon foundations assumed piling would be required for every tower leg. This is due to driven tube piling likely to be the worst-case, scenario for foundation installation due to it being difficult to mitigate the noise levels. It is anticipated that for many locations piling may not be used, so the magnitude of effect would reduce in the majority of locations. Typically each pylon foundation would only take one month to complete, and piling would not be continuous throughout this period. Therefore, these effects are very short-term.

3.5.7 Moderate effects are predicted at five receptors due to the dismantling of existing pylons. These effects would be from one, or in the case of one receptor two working areas and, therefore, would likely be very short in duration. Dismantling works would take place during core working hours.

3.5.8 The assessment of noise effects from traffic on access tracks indicates that one location would experience moderate effects. The receptor is close to the Tŷ Fodol Tunnel Construction Compound access track, so these effects could be for the majority of the construction period.

3.5.9 In summary considering all activities one receptor would experience a major adverse effect and twenty five receptors would experience a moderate adverse effect based on the worst-case noise and vibration.

3.5.10 A Noise and Vibration Management Plan (NVMP) (**Document 7.9**) has been produced which sets out the noise and vibration control measures that will be employed by the contractor to minimise adverse noise and vibration effects. This incorporates measures to minimise noise emissions such as, specifying working methods, hours of work and any noise controls in accordance with 'best practicable means'. The construction methods and mitigation measures take account of particularly sensitive receptors.

3.5.11 As outlined in Chapter 15, Construction Noise and Vibration (**Document 5.15**) residual effects are mainly considered to be not significant, and therefore would not constitute a statutory nuisance. Significant effects have been predicted at 25 receptors due to noise from piling and five receptors due to the dismantling of existing pylons. The potential for nuisance at these locations is limited to a very short duration. Significant effects predicted at one receptor due to the movement of traffic on construction access tracks may result in nuisance due to a combination of the intermittent frequency of movements over the construction programme.

Operation and Maintenance

3.5.12 There could be some potential for the following matters covered in Section 79(1) of the EPA 1990 (Ref 2) to arise: g) noise emitted from premises.

3.5.13 The potential for these nuisances are covered in Chapter 16, Operational Noise and Vibration of the ES (**Document 5.16**).

3.5.14 The operational noise assessment has concluded that significant effects are not anticipated taking into account the low predicted noise, the temporal characteristics of the wet/ dry noise, unlikelihood to result in sleep disturbance and operating scenarios.

3.5.15 Operational noise effects from the conductor system has been mitigated through design, by the choose of one of the quietest conductor bundle formations that can be deployed on the National Grid transmission system that meets the rating requirements and through the consideration of noise effects when determining pylon siting and route alignment. Measures are also include within the CEMP (**Document 7.4**) to prevent damage to or contamination of conductors during handling and stringing (measures NV21 - see section 3.6.4).

3.5.16 Predicted operation noise from the THHs have been mitigated through appropriate design and louvre orientation. Equipment at the THH would be selected based on the operational and safety constraints balanced against the desire for low noise emissions. Residual noise levels have been mitigated by selection of the most appropriate attenuators for the tunnel and stairwell ventilation fans, balanced against constraints such as allowable back pressure for the fans. As outlined in Chapter 16, Operational Noise and Vibration (**Document 5.16**) impacts are unlikely to result in a significant effect resulting from the operation and maintenance of the Proposed Development. National Grid takes the concerns of the public seriously, and operates a team of Noise Advisers to answer questions and address any concerns.

3.5.17 As maintenance activities, including repair and refurbishment works, would be similar to construction activities, albeit less extensive, the construction assessment as outlined in Chapter 15, Construction Noise and Vibration of the ES (**Document 5.15**) has also been used as a proxy for maintenance works. It would not be anticipated that maintenance works would typically be the same, or possibly lower, than those experienced during construction. As the majority of significant effects were predicted at locations effected by piling and traffic associated with the tunnel on construction access tracks, which will not be required during maintenance the potential for statutory nuisance to occur due to noise effects during maintenance is limited.

Decommissioning

3.5.18 As outlined in Chapter 15, Construction Noise and Vibration of the ES (**Document 5.15**) effects of decommissioning would typically be the same, or possibly lower, than those experienced during construction. As the majority of significant effects were predicted at locations affected by piling and traffic associated with the tunnel on construction access tracks, which will not be required in the decommissioning phase the potential for statutory nuisance to occur due to noise effects in the decommissioning phase is limited.

Mitigation

3.5.19 Mitigation measures relevant to noise and vibration set out within the CEMP (**Document 7.4**) are listed as follows:

- **NV11** A Noise and Vibration Management Plan (NVMP) (**Document 7.9**) has been produced which sets out the noise and vibration control measures that will be employed by the contractor to minimise adverse noise and vibration effects.
- **NV12** Noise and vibration monitoring will be carried out as appropriate at or around residential properties or any other identified sensitive structures during the construction phase to check compliance with the construction noise and vibration limits and thresholds as set out in the NVMP (**Document 7.9**).
- **NV13** The proposed hours of work during the construction phase are set out in Requirement 8 (**Document 2.1**). If necessary, consent will be sought by the contractor under Section 61 of the Control of Pollution Act 1974 (CoPA) as described in the NVMP (**Document 7.9**).
- **NV14** Standard best practice construction working methods will be adopted which include:
    - all vehicles, plant and equipment associated with the construction works will be properly maintained in good efficient working order, fitted with effective exhaust silencers and operated in such a manner to avoid causing excessive noise emissions;
    - low noise generators and quieter plant and equipment will be used, as far as reasonably practicable;

- as far as reasonably practicable, all major compressors will be 'sound-reduced' models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use and all ancillary pneumatic percussive tools shall be fitted with mufflers or silencers of the type recommended by the manufacturers;
- static plant (such as pumps, compressors and generators) and equipment liable to create noise and/or vibration whilst in operation will, as far as reasonably practicable, be positioned so as to cause minimum noise disturbance, i.e. located away from sensitive receptors;
- audible warning systems, such as vehicle reversing sirens, will normally be set to as low a setting as is compatible with safety requirements; white noise reversing alarms will be used where it is considered safe to do so;
- loading and unloading activities will be located as far a reasonably practicable away from sensitive receptors;
- construction traffic movements will be undertaken in accordance with the Outline Construction Traffic Management Plan (**Document 7.5**);
- access tracks will be well maintained during construction works and any potholes will be filled in and any uneven surfaces smoothed out as soon as reasonably practicable;
- plant and equipment will be shut down when not in use;
- drop heights of materials will be minimised;
- employees, subcontractors and persons employed on site will not cause unnecessary noise from engine revving etc; and
- temporary hoardings or noise barriers around worksites or noisy activities will be provided where necessary to ensure the construction noise limits/thresholds specified in the NVMP (**Document 7.9**) are met.

- **NV21** Damage to or contamination of overhead line (OHL) conductors during the handling and stringing can lead to a potential increase in operational noise once the OHL is energised. To reduce the likelihood of damage or contamination of conductors the following will be implemented:

- quality assurance through manufacturing and transportation to avoid damage to OHL conductors; and
- ensuring that conductors are kept clean and free of surface contaminants during stringing/installation.

- **NV22** For whatever ground conditions and commensurate foundation construction is required for each pylon, the contractor will employ the quietest plant and methods of construction where practicable appropriate to the foundation type required for the ground conditions.
- **NV31** Surface drilling and curtain grouting associated with shaft construction is limited to Monday to Friday 07:00 to 19:00 hours and 07:00 to 13:00 hours on Saturdays
- **NV32** During the drill and blast activities, the following measures will be implemented to limit noise and vibration:
  - During shaft construction a specially designed blast mat will be placed on the base of the shaft prior to each blast as required to reduce the generated noise among other purposes.
  - Blasting of the shafts will only take place between 10:00 hrs and 16:00 hrs Monday to Friday and between 10:00 hrs and 13:00 hrs on Saturdays as set in in GP11.
  - Local residents and businesses will be given advanced warning of when periods of blasting would take place.
  - Vibration and air overpressure from blasting will be assessed and controlled by the appropriate contractor.
  - Air overpressure and vibration monitoring will be carried out to determine levels relative to any required noise or vibration limits as required.
  - Blast design measures or other mitigation measures will be implemented to prevent exceedance of limits/thresholds as set out in the NVMP (**Document 7.9**).
  - Blast design measures will include refraining from simultaneous blasting (i.e. blasting from both ends of the tunnel at the same time), whilst beneath the Menai Strait.

- The maximum total blast weight per round for drill and blast of the tunnel will not exceed 300 kg.
- The maximum number of blasts for drill and blast of the tunnel per 24 hours will not exceed six.

- **NV33** Ground vibration as a result of blasting, would be controlled such that it would not exceed a peak particle velocity (PPV) of 6 mms-1 in 95% of all blasts measured over any six month period at the nearest sensitive receptor. Additionally, no individual blast would exceed a PPV of 10 mms-1 at the nearest sensitive receptor. Limits will also be placed on blasting activity to ensure effects on marine mammals and fish are no greater than those reported in ES Chapter 9 (**Document 5.9**).

- **NV34** A power supply will be provided to the Braint and Tŷ Fodol construction compounds to power tunnelling activities. Generators will only be used as back up or in the case of an emergency.

- **NV35** Tunnelling related works within the construction compounds at Braint and Tŷ Fodol where 24-hour working will be required, will be subject to full noise predictions and if necessary Section 61 applications which will demonstrate the applied Best Practicable Means (BPM).

- **NV36** Surface vibration from underground works, excluding TBM and drill and blast, but including the temporary construction railway, would be controlled such that it would not exceed noise and vibration a levels/thresholds at nearest sensitive receptors as set out in the NVMP (**Document 7.9**).

- **NV37** The following measure will be applied to the temporary construction railway (TCR) within the tunnel where identified as being necessary:
  - Smooth rails (reconditioned or new rails without corrugations or discrete irregularities) will be installed at the start of the works with joints which won't exceed a variation in rail height difference of than 2 mm;
  - adequate elasticity in the track support system will be provided in order to reduce the transmission of vibration and groundborne noise from the passage of rail vehicles, for example the use of resilient rail pads in the fastening system between the rails and the sleepers;

- the locomotive speed will be appropriately restricted;
- a maintenance programme will be instigated that ensures the condition of the track does not deteriorate over time thereby causing excess noise or vibration levels; and
- appropriate noise and vibration monitoring will be carried out prior to and during tunnelling and during the initial use of the TCR.

- **NV38** Residents within 100 m of the tunnel alignment will be provided with written notification in advance of the tunnelling activities.

Conclusions

3.5.20 In light of the assessments presented in the ES (Documents 5.15 and 5.16), the design of the Proposed Development and the mitigation measures described in the CEMP (Document 7.4) and NVMP (Document 7.9) significant noise and vibration effects associated with the construction activities are limited, and as such the potential for statutory nuisance is also limited. However, significant effects are predicted at one receptor due to the movement of traffic on construction access tracks this may result in nuisance due to a combination of the intermittent frequency of movements over the construction programme.

4 Conclusions

4.1.1 This Statement identifies the matters set out in Section 79(1) of the EPA 1990 (Ref 2) in respect of statutory nuisance and considers whether the Proposed Development has the potential to cause nuisance.

4.1.2 With proposed mitigation in place, it would not be expected that there would be a breach of Section 79(1) of the EPA 1990 (Ref 2) during construction, operation, maintenance or decommissioning activities.

4.1.3 The CEMP (**Document 7.4**), which would be secured by Requirement 6 of the Draft DCO (**Document 2.1**), includes measures that will minimise the potential to cause nuisance. The construction activities that have the potential to create a nuisance will be controlled through strict compliance with National Grid's Contract Requirements which would require that the contractor implement the measures outlined in the CEMP.

4.1.4 Operational mitigation in the form of appropriate design of the permanent infrastructure and the selection of components on the OHL and equipment at the THHs, have been implemented to reduce the potential to cause nuisance.

5 References

Ref 1 The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009. Available at: https://www.legislation.gov.uk/uksi/2009/2264/contents/made

Ref 2 Environmental Protection Act 1990. Available at: https://www.legislation.gov.uk/ukpga/1990/43/contents

Ref 3 Overarching National Policy Statement (NPS) for Energy (EN-1) Department for Energy and Climate Change (DECC), 2011. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/47854/1938-overarching-nps-for-energy-en1.pdf

Ref 4 The Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended) Available at: https://www.legislation.gov.uk/uksi/2009/2263/contents/made