

Our Case Number: ACP-322843-25



An
Coimisiún
Pleanála

Health and Safety Authority (SIDS)
National Business Service Unit
National Environmental Health Service
HSE, 2nd Floor Oak House, Millennium Park
Naas
Co. Kildare
W91KDC2

Date: 25 August 2025

Re: Proposed development of a 110kV substation and associated works
in the townlands of Ballynamullagh, Kilmurry, Coolree, Killyon and Drehid, County Kildare
(www.drehidsubstationSID.ie)

Dear Sir / Madam,

An Coimisiún Pleanála has received your submission in relation to the above mentioned proposed development and will take it into consideration in its determination of the matter.

The Commission will revert to you in due course in respect of this matter.

Please be advised that copies of all submissions / observations received in relation to the application will be made available for public inspection at the offices of the local authority and at the offices of An Coimisiún Pleanála when they have been processed by the Commission.

More detailed information in relation to strategic infrastructure development can be viewed on the Commission's website: www.pleanala.ie.

If you have any queries in the meantime, please contact the undersigned officer of the Commission or email sids@pleanala.ie quoting the above mentioned An Coimisiún Pleanála reference number in any correspondence with the Commission.

Yours faithfully,


Lauren Murphy
Executive Officer
Direct Line: 01-8737275

VA11

Teil
Glao Áitiúil
Facs
Láithreán Gréasáin
Ríomhphost

Tel
LoCall
Fax
Website
Email
(01) 858 8100
1800 275 175
(01) 872 2684
www.pleanala.ie
communications@pleanala.ie

64 Sráid Maoilbhríde
Baile Átha Cliath 1
D01 V902

64 Marlborough Street
Dublin 1
D01 V902

Lauren Murphy

From: communications
Sent: Friday 1 August 2025 15:56
To: Marine
Subject: Fw: NEHS_Sub_Plan_Ref ACP-322845-25 and 322843 DrehidWF and Transformer
Attachments: NEHS_Sub_Plan_Ref ACP-322845-25DrehidWF_July_25.pdf

Categories: Lauren Case

From: Andrew Sulley <Andrew.Sulley@hse.ie>
Sent: 01 August 2025 15:50
To: Bord <bord@pleanala.ie>
Subject: NEHS_Sub_Plan_Ref ACP-322845-25 and 322843 DrehidWF and Transformer

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Please find enclosed observations on application ACP-322845 and ACP-322843 from the National Environmental Health Service. Any clarification should be directed to Andrew.sulley@hse.ie

Andrew Sulley

Oifigeach Sláinte Comhshaoil Sinsearach/Senior Environmental Health Officer
Timpeallacht Athrú Aeráide Aonad Tacaíochta Líonra/Environment Climate Change Network Support Unit

Seirbhís Náisiúnta Sláinte Comhshaoil, FSS/ National Environmental Health Service, HSE
Holland, Páirc Theicneolaíochta Plassey, Luimneach/ Holland Road, Plassey Technological Park, Limerick

"Tá an fhaisnéis sa ríomhphost seo (ceangaltáin san áireamh) faoi rún. Baineann sé leis an té ar seoladh chuige amháin agus tá sé ar intinn go bhfaighfidh siadsan amháin é agus gurb iadsan amháin a dhéanfaidh breithniú air. Más rud é nach tusa an duine ar leis é, tá cosc iomlán ar aon fhaisnéis atá ann, a úsáid, a chraobhscaoileadh, a scaipeadh, a nochtadh, a fhoilsiú, ná a chóipeáil. Seans gurb iad tuairimí pearsanta an údar atá san ríomhphost agus nach tuairimí FSS iad.
Má fuair tú an ríomhphost seo trí dhearmad, bheadh muid buíoch dá gcuirfeá in iúl don Deasc Seirbhísí ECT ar an nguthán ag [+353 818 300300](tel:+353818300300) nó ar an ríomhphost chuig service.desk@hse.ie agus ansin glan an ríomhphost seo ded' chóras."

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An tOifig Náisiúnta um Sláinte Chomhshaoil
Feidhmeannacht na Seirbhíse Sláinte,
Urlár 2, Teach na Darach, Ascaill na Teile
Páirc na Mílaoise, An Nás, Co. Chill Dara.

National Office for Environmental Health Services
2nd Floor, Oak House, Lime Tree Avenue
Millennium Park, Naas, Co. Kildare
Eircode: W91KDC2

31st July 2025

An Coimisiún Pleanála
64 Marlborough Street
Dublin
D01 V902

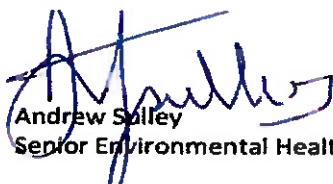
Planning Ref: ACP-322845-25 and ACP-322843-25

NEHS ref: ID5100 and ID5101

North Kildare Wind Farm Ltd
Drehid Wind Farm and Substation, Co Kildare

Enclosed are the observations of the National Environmental Health Service (NEHS) on planning application ACP-322845-25 and ACP-322843. Whilst these are being processed as different applications, the EIAR and supporting documents for each application are the same. The EIAR has not been made specific for the substation and likely significant impacts for the substation are assessed in the EIAR for the proposed wind farm.

Any clarification on the contents of this submission should be made, in the first instance, Andrew.sulley@hse.ie quoting NEHS ID5001.


Andrew Sulley
Senior Environmental Health Officer

The following HSE stakeholders were notified of the application on the 17th July 2025

- Emergency Planning
- National Capital Estates Office
- Director of National Health Protection
- REO Dublin and Midlands

National Environmental Health Service Submission Report

Date: 31st July 2025

Our reference: ID5100 and ID5101

Report to: An Coimisiún Pleanála, 64 Marlborough Street, Dublin, D01 V902

Type of Consultation: EIAR- Drehid Wind Farm and Substation, Co Kildare

The following is noted from the EIAR:

On 23rd April 2024 An Bord Pleanála deemed the Proposed Wind Farm Strategic Infrastructure Development (SID) by way of a notice served under section 37B(4)(a) of the Planning and Development Act 2000 as amended and the application is being made directly to the Board (case ref. ABP-314463). The Board are the competent authority for the purposes of the Environmental Impact Assessment (EIA).

On 23rd April 2024 An Bord Pleanála deemed the Proposed Substation Strategic Infrastructure Development (SID) pursuant to Section 182 of the Planning and Development Act 2000 as amended and the application is being made directly to the Board (case ref. ABP-311394). The Board are the competent authority for the purposes of the Environmental Impact Assessment (EIA)

The EIAR has not been made specific to each application. In particular, the NTS is not a specific NTS for the application being considered. Therefore, reference in this submission to the EIAR, is reference to the EIAR that covers both applications.

The NEHS notes the history of the site and previous applications and environmental assessments. In particular from the EIAR:

It is also important to note that the overriding reason for selecting the site proposed is that it has already been subject to the EIA process with Kildare County Council and An Bord Pleanála where the Competent Authority previously considered that the project was in accordance with the proper planning and sustainable development of the area. In addition, based on the information submitted with the Drehid Wind Farm Project 2018 planning application and the assessment at the time carried out by An Bord Pleanála, the Drehid Wind Farm Project 2018 was acceptable to the Competent Authority on environmental grounds.

General

The HSE is a statutory consultee under Article 28 of the Planning and Development Act 2000 (as amended) and has a remit to make observations on a planning application accompanied by an EIAR with regard to any likely significant effects on Public Health. The NEHS can make observations on any planning application as a statutory consultee.

The objective of any observations by the NEHS are to inform the Planning Authority on any likely significant effects on Public Health and give an opinion on any proposed mitigation to protect Public and Environmental Health. Any observations made are to inform and assist the decision making of the Planning Authority in the planning process.

This submission is the observations and comments of the NEHS based on the submitted planning application and the accompanying Environmental Impact Assessment Report (EIAR). The NEHS does not carry out any independent environmental monitoring or validation of any measurements or data reproduced in an EIAR.

Criteria for Consideration of Likely Significant Effects on Public Health

The NEHS considers likely significant effects on Public Health as per the EPA issued National Guidance (known as the EIAR Guidance): ***Guidelines on the information to be contained in Environmental Impact Assessment Reports***, 2022 https://www.epa.ie/publications/monitoring--assessment/assessment/EIAR_Guidelines_2022_Web.pdf

Particularly section 3 of the EIAR Guidance on Human Health which is reproduced below:

Human Health

The recitals to the 1985 and 2011 Directives refer to 'Human Health' and include 'Human Beings' as the corresponding environmental factor. The 2014 Directive calls this factor 'Population and Human Health'.

While no specific guidance on the meaning of the term Human Health has been issued in the context of Directive 2014/52/EU, the same term was used in the SEA Directive (2001/42/EC). The Commission's SEA Implementation Guidance states 'The notion of human health should be considered in the context of the other issues mentioned in paragraph (f)'. (Paragraph (f)⁴⁷ lists the environmental factors including soils, water, air etc). This is consistent with the approach set out in the 2002 EPA EIS Guidelines where health was considered through assessment of the environmental pathways through which it could be affected, such as air, water or soil, namely:

'The evaluation of effects on these pathways is carried out by reference to accepted standards (usually international) of safety in dose, exposure or risk. These standards are in turn based upon medical and scientific investigation of the direct effects on health of the individual substance, effect or risk. This practice of reliance upon limits, doses and thresholds for environmental pathways, such as air, water or soil, provides robust and reliable health protectors [protection criteria] for analysis relating to the environment.'

In an EIAR, the assessment of impacts on population & human health should refer to the assessments of those factors under which human health effects might occur, as addressed elsewhere in the EIAR e.g. under the environmental factors of air, water, soil etc.. The Advice Notes provide further discussion of how this can be addressed.

Assessment of other health & safety issues are carried out under other EU Directives, as relevant. These may include reports prepared under the Industrial Emissions, Waste Framework, Landfill, Strategic Environmental Assessment, Seveso III, Water Framework Directive, Floods or Nuclear Safety Directives⁴⁸. In keeping with the requirement of the amended Directive, an EIAR should take account of the results of such assessments without duplicating them.

The NEHS therefore considers likely significant effects within a population and Human Health context that uses a source – pathway- receptor model, based on emissions through environmental media and population exposure. The exposure of populations, if any, is then considered against recognised health protection criteria.

Whilst EIAR Guidance recognises the requirement to identify sensitive receptors within the assessment process, the Planning Authority should be clear that it is within a Population health approach.

A Population Health approach to the sensitivity of receptors would not consider individual specific sensitivity of a human receptor, but the sensitivity of the established land use or service provision. For example, a school would be considered a sensitive receptor within a Population Health approach, but an individual student who was particularly sensitive to noise attending the school would not be specifically considered in the assessment criteria. But, a health care facility that provided services for people with recognised noise sensitivity would be considered in its entirety as a particular noise sensitive location.

The Population Health approach therefore has important differences in how likely significant effects on Population and Human Health are considered in EIA. The assessment should consider established land development and use and service provision and activities within communities and not individual members of communities.

It is recommended that the Planning Authority also follows this method when consider Public Health in their decision making.

Project Specific Guidance for Wind Energy Development

The current Guidelines for Wind Energy Development are: Wind Energy Development Guidelines (2006) <https://www.gov.ie/en/publication/f449e-wind-energy-development-guidelines-2006/>

It is recognised that the nature of wind energy development has significantly changed since the publication of these Guidelines. Particularly the size of the turbines and the proximity to centres of populations and the cumulative effects with other wind energy development. There has also been substantial increases in the body of knowledge around the likely significant effects of the operation of wind farm development on Population Health, in particular around the characteristic of the noise emissions and health effects of shadow flicker.

A revision of the 2006 GWED commenced in 2013 and Draft Revised Wind Energy Development Guidelines were issued in December 2019. <https://www.gov.ie/en/publication/9d0f66-draft-revised-wind-energy-development-guidelines-december-2019/>

These are yet to be adopted.

The Revised WEDG 2013 states 'the revised guidelines will provide greater consistency of approach in planning for onshore wind energy development, as well as providing greater certainty and clarity to the planning system, to the wind industry and to local communities'

The NEHS is aware of the High Court decision in **Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8th March 2024**, and details of the judgement. The judgement that the noise from the wind farm was a Private Nuisance is a predominately health based assessment, in that the elements that were deemed to create the nuisance were directly related to health effects on the complainants. It is the understanding of the NEHS that assessment of compliance with health protection conditions set in the consent process was not a material consideration in the judgement. The judge did state that she could consider nuisance irrespective of any compliance with consent conditions, particularly in the absence of up to date national Policy and Guidance in the area. The Judgement also states the revised Draft Guidance has been withdrawn. There is no public indication this is the case. It is still on the Department's website as of the date of this submission.

Nuisance from noise is fundamentally a subjective assessment based on 'reasonable' perception and reaction of the effects of the noise exposure. This perception and reaction depends on situational specific conditions and land use. This was recognised in the Judgement after 51 days of evidence and consideration of the specific facts. It also the understanding of the NEHS that the Judgement did not make an order as to the level or characteristic of the noise that would abate the nuisance.

If the Planning Authority are now considering that they are under a duty to incorporate the likelihood of a Private Nuisance into their decision making, then they should consider the judgement in **Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8th March 2024**. This judgement identified, in the absence of Irish Guidance, the usefulness of UK Guidance in the investigation of wind farm noise as a statutory nuisance. This is, of course, a reactionary methodology where specific noise exposure is known and not a predictive methodology for the likelihood of a Private Nuisance. <https://assets.publishing.service.gov.uk/media/5a795184e5274a3864fd5f82/pb-13584-windfarm-noise-statutory-nuisance.pdf>

Chapter 11 Population and Human Health

The NEHS has considered chapter 11 of the EIAR.

Consideration of Population and Human Health should be done in a proportionate manner that is specific to the proposed development and any likely significant effects the proposal might have on Population Health.

Observations of the NEHS

The NEHS notes the commitment to recreational walking trails as part of the proposed development and the opportunity for health gain through physical exercise.

With regard to potential health effects from EMR and health:

The HSE, in their 2017 report 'Position paper on wind turbines and public health' state the following with regard to Electromagnetic radiation:

"There is no direct evidence from which to draw any conclusions on an association between electromagnetic radiation produced by wind farms and health effects. Extremely low-frequency electromagnetic radiation is the only potentially important electromagnetic emission from wind farms that might be relevant to health. Limited evidence suggests that the level of extremely low-frequency electromagnetic radiation close to wind farms is less than average levels measured inside and outside suburban homes."

In the case of the Proposed Substation the electric and magnetic fields expected to be associated with the operation of the substation, underground cable and loop-in connection to the overhead line, fully complies with the ICNIRP and EU guidelines on exposure of the general public to ELF EMF. Therefore, the potential impact to human health as a result of electromagnetic interference associated with the operational phase of the Proposed Development will be negligible and imperceptible.

The main consideration for protection Population and Human Health is a source – pathway- receptor with regard to emissions into the environment during construction and operation of the proposed development.

Particularly:

- a) Any likely significant effect from exposure to noise during construction and operation
- b) Any likely exposure to shadow flicker during operation,
- c) Any likely significant reduction in air quality during construction, particularly dust emissions,
- d) Protection of ground and surface water during construction activities from contamination with hydrocarbon spillages or sedimentary run off.

With Regard to Chapter 11

- a) The NEHS is satisfied appropriate methodology and health protection criteria has been used in this section of the EIAR.
- b) The NEHS recommends the Planning Authority consider Chapter 11 in the context of our previous recommendations in this submission, i.e. emissions into the environment and exposure of populations to the emissions and an evaluation against recognised health protection standards.
- c) The NEHS is of the opinion that there is no requirement or benefit for a project specific Health Impact Assessment to be part of the EIAR.
- d) The NEHS notes proposals for health gain opportunities, for example creating opportunities for physical exercise as part of the proposed development.

Shadow Flicker (Chapter 12 of EIAR)

The draft 2019 Guidelines proposed a planning condition of:

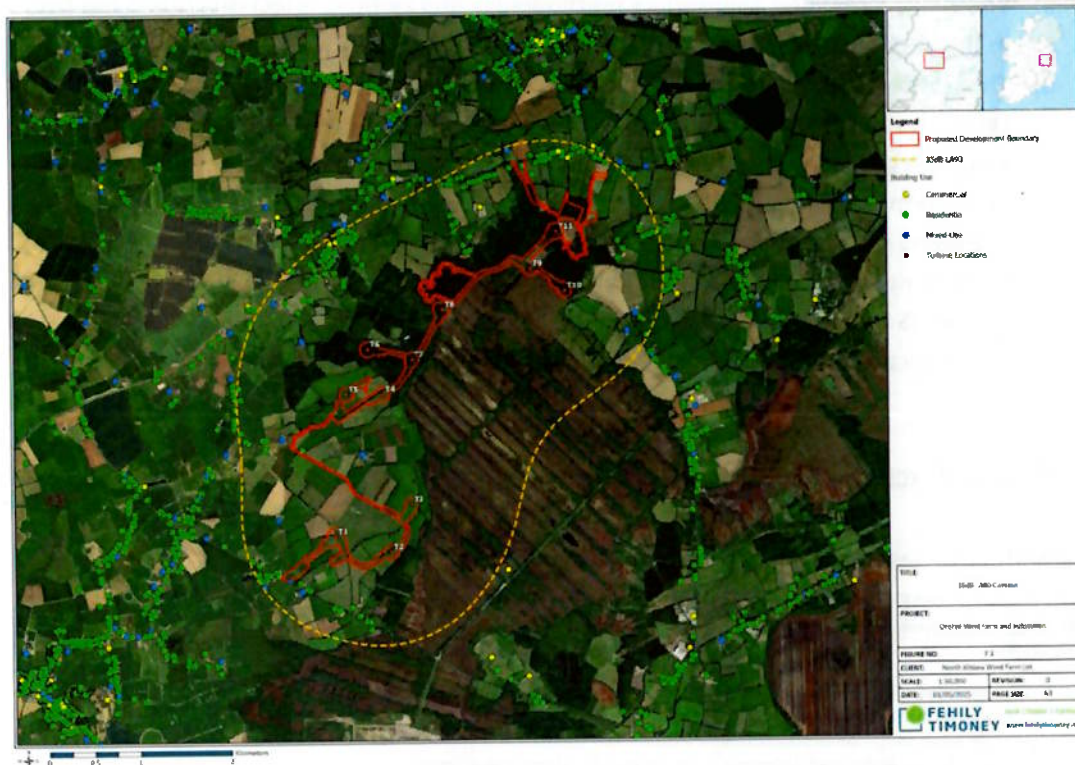
The adopted DoEHLG 2006 Guidelines are currently under review. The Draft DoEHLG 2019 Guidelines recommend local planning authorities and/or An Bord Pleanála impose conditions to ensure that:

"no existing dwelling or other affected property will experience shadow flicker as a result of the wind energy development subject of the planning application and the wind energy development shall be installed and operated in accordance with the shadow flicker study submitted to accompany the planning application, including any mitigation measures required."

The Draft DoEHLG 2019 Guidelines are based on the recommendations set out in the 'Proposed Revisions to Wind Energy Development Guidelines 2006 – Targeted Review' (December 2013) and the 'Review of the Wind Energy Development Guidelines 2006 – Preferred Draft Approach' (June 2017).

In the interest of the protection of public Health the proposed condition in the 2019 Draft Guidance should be implemented if consent is given for the development. The technology has advance since the publication of the 2006 Guidance and it is a reasonable health protection measure to be included in any conditioning of a wind farm development. The mitigation measures that will eliminate exposure to shadow flicker are identified in the EIAR. This mitigation should be implemented irrespective of whether the current guidance is updated.

Likely Significant Effects from Noise and Vibration (Chapter 7 of EIAR)



The NEHS has considered Chapter 7 of the EIAR and makes the following observations:

- The 2006 Guidelines include guidance on how to derive noise limits for daytime and night-time periods, which can be summarised as: daytime limits take account of existing background noise levels and include a fixed limit of 45 dB, or background + 5 dB, whichever is the greater, except in low background noise environments where a fixed minimum limit in the range 35-40 dB should be considered.
- This criteria is therefore that turbine noise at noise sensitive locations should not exceed for daytime periods:
40 dB(A) where background noise levels are below 30 dB; and,
45 dB(A) or background noise plus 5 dB, whichever is the greater, where background noise levels are greater than 30.
- This criteria can potentially see a predicted increase of up to 15 dB(A) change in the noise environment as compliant with the criteria. Any change in the noise environment of this magnitude is highly likely to cause complaints and/or nuisance. **BS 4142:2014+A1:2019 Methods for rating and assessing industrial and commercial sound** identifies an increase of 10 dB above existing rated noise levels will have a significant adverse impact and is highly likely to cause complaints.
- The evaluation of significance of the effect is based on the most up to date scientific knowledge and data. The EIA process specifically requires the assessment to be 'the likely significant effects' and if the knowledge on an evaluation criteria for significance has

developed since the publication of a guidance, then it is reasonable and correct to use the developed knowledge base in assessing the significance of any effect. This is particularly relevant to the protection of Public Health. Statutory Guidance issued under the Planning Development Act 2000 (as amended) has to be considered by the Planning Authority when making a decision, but it is not a consideration that precludes all other evidence and knowledge. In in **Webster/Rollo V Meenaclogher (Wind) Limited (2024 IEHC 136) 8th March 2024** the Judgement supports this position, in that the judgement makes it clear that compliance with the current Planning Guidance does not preclude a private noise nuisance.

- e) In the opinion of the NEHS, tabulation of the predicted change in the noise environment from the proposed development and the cumulative change in the original baseline noise environment before any wind farm development in the area is the most informative way of reporting the likely effect of operational noise in an EIAR.
- f) The NEHS would consider the most appropriate criteria for assessing significance of the predicted noise would be consideration of the **ENVIRONMENTAL NOISE GUIDELINES for the European Region, 2018** The 2018 WHO Guidance set health protection levels from environmental noise <https://iris.who.int/bitstream/handle/10665/279952/9789289053563-eng.pdf?sequence=1>
- g) Whilst section the EIAR does not accept the above position of the NEHS, the use of the 2006 Guidance with regards to noise exposure, and in particular the 'balance between development and protection of public health' stated in ETSU R-97 are resulting in a significant volume of complaints from communities exposed to noise from wind turbines post development. This position that the absolute noise exposure limits set in the 2006 Guidance do not necessarily protect Public Health in specific development situations is now supported by Judgements of the Irish Courts, as reference previously in this submission.

Conclusion

- a) **The tabulated predicted noise exposure in table 7.16 indicates absolute noise exposure is below the adopted criteria.**
- b) **Irrespective of the adopted criteria in the EIAR, the predicted noise exposure levels would meet a more stringent health protection criteria as per the NEHS comments above.**
- c) **The NEHS would therefore conclude that the development is not likely to create noise emissions that require mitigation to protect Public Health.**

The NEHS notes the following with regard to the substation:

Table 7-18: BS4142 Assessment of Transformer Noise

Results	Daytime	Night time
Measured ambient plus predicted noise from transformer	(Residual 40 dB + specific 28 dB=) 40 LAeq, 60mins	(Residual 40 dB + specific 28 dB=) 40 LAeq, 60mins
Residual sound level	40 dB LAeq, 60min	40 dB LAeq, 60min
Background sound level (when source not in operation)	32 dB LA90 (60mins)	28 dB LA90 (15 mins)
Reference period	1 hour	15 minutes
Specific sound level	28 dB LAeq, 60mins	28 dB LAeq, 15mins
Acoustic character correction (none applied)	-	-
Rating level (no correction applied)	28 dB LA90, 60mins	28 dB LA90, 15mins
Background sound level	32 dB LA90, 10mins	28 dB LA90, 10mins
Excess of rating over background	-4 dB	+0 dB
Results	The difference is -4 dB. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.	The difference is 0 dB. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

Consideration of the predicted noise exposure from construction of the proposed development

The NEHS makes the following comments:

- The NEHS is of the opinion that there is no requirement for additional noise mitigation measures during the construction phase providing those measures identified in the in section 7 of the EIAR are implemented in full.
- It is the opinion of the NEHS that conditioning hours of construction activity is an important element of the protection of Public Health. Particularly to prevent sleep disturbance. The recommended hours of construction are:

Monday to Friday 08.00 to 19.00

Saturday 09.00 to 14.00

No work on Sunday or Bank Holidays

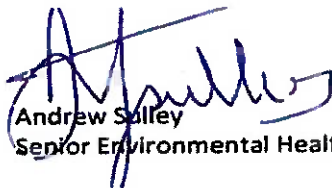
Exceptionally work outside these hours at the express permission of the Planning Authority.

This recommendation is made in the interest of the protection of Public Health

Construction and Environmental Management Plan (CEMP)

The NTS references a draft Construction and Environmental Management Plan. The NEHS could not identify where this is in the EIAR or find it. It should include:

- a) All drinking water and water used for the preparation of food in the temporary construction compounds should meet the requirements of S.I. No. 122/2014 - European Union (Drinking Water) Regulations 2014,
- b) There should be no direct emission to ground or surface water of any foul waste water. All waste water should be contained and taken off site to a licensed treatment facility,
- c) Site drainage should ensure the protection of surface and ground water during the construction phase.
- d) The dust monitoring is a monthly average standard. Compliance with standard can incorporate short periods of very high levels of dust deposition followed by low levels and still be compliant. It is therefore important that dust minimisation is continually implemented and any complaints are investigated and responded to.


Andrew Salley
Senior Environmental Health Officer