

## Dinsdale R (Rosanne)

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**From:** Malcolm Morrison <M.Morrison@sff.co.uk>  
**Sent:** 03 August 2016 14:41  
**To:** MS Marine Renewables  
**Cc:** John Watt  
**Subject:** RE: Hywind (Scotland) Ltd - Application for Marine Licence - UXO Disposal

Roseanne

The SFF would expect that Hywind would ensure appropriate liaison, through their FLO, with all Fishing Vessels which may be operating on the route, including the inshore.

If that takes place we have no further concerns regarding this licence,

Regards, Malcolm

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**From:** [Rosanne.Dinsdale@gov.scot](mailto:Rosanne.Dinsdale@gov.scot) [<mailto:Rosanne.Dinsdale@gov.scot>]  
**Sent:** 26 July 2016 15:08  
**To:** [marineenergy@snh.gov.uk](mailto:marineenergy@snh.gov.uk); [erica.knott@snh.gov.uk](mailto:erica.knott@snh.gov.uk); [Mareike.Moeller-Holtkamp@snh.gov.uk](mailto:Mareike.Moeller-Holtkamp@snh.gov.uk); [Sarah.Canning@jncc.gov.uk](mailto:Sarah.Canning@jncc.gov.uk); [Karen.Hall@jncc.gov.uk](mailto:Karen.Hall@jncc.gov.uk); [planning.aberdeen@sepa.org.uk](mailto:planning.aberdeen@sepa.org.uk); Renewables <[Renewables@sff.co.uk](mailto:Renewables@sff.co.uk)>; [navigation@nlb.org.uk](mailto:navigation@nlb.org.uk); [graeme.leslie@uk.bp.com](mailto:graeme.leslie@uk.bp.com); [oga.correspondence@oga.gsi.gov.uk](mailto:oga.correspondence@oga.gsi.gov.uk); [robert.a.white@oga.gsi.gov.uk](mailto:robert.a.white@oga.gsi.gov.uk); [navigationsafety@mcga.gov.uk](mailto:navigationsafety@mcga.gov.uk); [MS\\_Renewables@gov.scot](mailto:MS_Renewables@gov.scot); [Paul.Stainer@gov.scot](mailto:Paul.Stainer@gov.scot); [DIO-Safeguarding-Offshore@mod.uk](mailto:DIO-Safeguarding-Offshore@mod.uk)  
**Cc:** [Joao.Queiros@gov.scot](mailto:Joao.Queiros@gov.scot); [Catarina.Aires@gov.scot](mailto:Catarina.Aires@gov.scot); [Paul.Cook2@gov.scot](mailto:Paul.Cook2@gov.scot)  
**Subject:** Hywind (Scotland) Ltd - Application for Marine Licence - UXO Disposal

Dear Sir/Madam

### **MARINE (SCOTLAND) ACT 2010 & MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED), PART 4 MARINE LICENSING**

06070 – Hywind (Scotland) Ltd – Unexploded Ordnance Disposal

Marine Scotland Licensing Operations Team (MS-LOT) have received the attached proposal under the above Acts for a Marine Licence for unexploded ordnance disposal within the location of the Hywind Scotland Pilot Park Project, including the cable corridor from Hywind (Scotland) Ltd.

Please find the application form attached. A large number of charts support the documents which can be found at the following site: <http://www.gov.scot/Topics/marine/Licensing/marine/scoping/Hywind>

Please forward any comments you may have on these proposals, in an electronic format to ([MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)) by 23<sup>rd</sup> August 2016.

If you are unable to meet this deadline please inform us in writing as soon as possible. We will aim to grant an extension to the consultation period.

Should you have any queries please do not hesitate to contact us.

Yours sincerely

Rosanne

Rosanne Dinsdale  
Marine Renewables Casework Officer  
**Marine Scotland** - Marine Planning & Policy

Our ref: PCS/148159  
Your ref: 06070

If telephoning ask for:  
Alison Wilson

2 August 2016

Rosanne Dinsdale  
Marine Scotland  
Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

By email only to: [ms.marinerenewables@gov.scot](mailto:ms.marinerenewables@gov.scot)

Dear Ms Dinsdale

**Marine (Scotland) Act 2010 & Marine And Coastal Access Act 2009 (As Amended),  
Part 4 Marine Licensing  
Verification and clearance of potential UXOs found within the Hywind Scotland field  
Hywind Scotland Pilot Park including the export cable route from HDD point outside  
Peterhead, to the Wind Turbine Park offshore**

Thank you for your consultation email which SEPA received on 26 July 2016. We have **no objection** to this marine licence application.

**Regulatory advice for the applicant**

**1. Regulatory requirements**

- 1.1 We note from the supporting documents that "Disposal of confirmed UXO's or UXO related debris, will then be undertaken by subcontracted UXO disposal experts, assisted by vessels ROV for placing charges." It would appear that UXO will be blown up in situ and therefore there should be no waste coming ashore. However any waste brought ashore would be subject to the Waste Management Regulations and classifications i.e. special waste etc. If any related waste material will be brought ashore for disposal the applicant is advised to contact the local Operations team, at Shaw House, Mid Street, Fraserburgh, AB43 9JN, Tel: 01346 510502, to discuss appropriate disposal.
- 1.2 Details of regulatory requirements relating to waste disposal and good practice advice for the applicant can also be found on our website at [www.sepa.org.uk/regulations/waste/guidance/](http://www.sepa.org.uk/regulations/waste/guidance/).



Chairman  
Bob Downes

Chief Executive  
Terry A'Hearn

**SEPA Aberdeen Office**  
Inverdee House, Baxter Street  
Torry, Aberdeen AB11 9QA  
tel 01224 266600 fax 01224 896657

[www.sepa.org.uk](http://www.sepa.org.uk) • customer enquiries 03000 99 66 99

1.3 If you have any queries relating to this letter, please contact me by telephone on 01224 266656 or email at [planning.aberdeen@sepa.org.uk](mailto:planning.aberdeen@sepa.org.uk).

Yours sincerely

Alison Wilson  
Senior Planning Officer  
Planning Service

ECopy to: Mr O Vold, Hywind (Scotland) Limited, [ovvo@statoil.com](mailto:ovvo@statoil.com)

*Disclaimer*

*This advice is given without prejudice to any decision made on elements of the proposal regulated by us, as such a decision may take into account factors not considered at this time. We prefer all the technical information required for any SEPA consents to be submitted at the same time as the planning or similar application. However, we consider it to be at the applicant's commercial risk if any significant changes required during the regulatory stage necessitate a further planning application or similar application and/or neighbour notification or advertising. We have relied on the accuracy and completeness of the information supplied to us in providing the above advice and can take no responsibility for incorrect data or interpretation, or omissions, in such information. If we have not referred to a particular issue in our response, it should not be assumed that there is no impact associated with that issue. For planning applications, if you did not specifically request advice on flood risk, then advice will not have been provided on this issue. Further information on our consultation arrangements generally can be found on our [website planning pages](#).*

# Northern Lighthouse Board

**CAPTAIN PHILLIP DAY**  
**DIRECTOR OF MARINE OPERATIONS**

84 George Street  
Edinburgh EH2 3DA  
Switchboard: 0131 473 3100  
Fax: 0131 220 2093  
Website: [www.nlb.org.uk](http://www.nlb.org.uk)  
Email: [enquiries@nlb.org.uk](mailto:enquiries@nlb.org.uk)



Your Ref: Email 260716/OV/06070 - UXO  
Our Ref: AJ/OPS/ML/O6\_14\_344

Ms Rosanne Dinsdale  
Marine Renewables Casework Officer  
Marine Scotland – Marine Planning and Policy  
Scottish Government  
Marine Laboratory  
375 Victoria Road  
Aberdeen  
AB11 9DB

09 August 2016

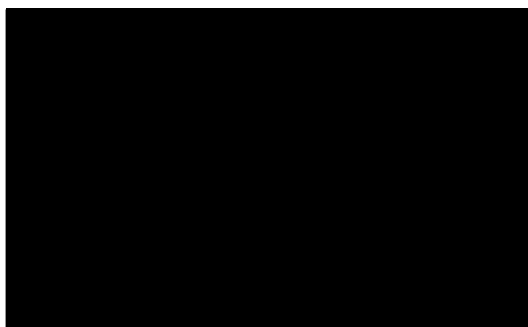
Dear Rosanne,

**MARINE (SCOTLAND) ACT 2010**  
**MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED), PART 4 MARINE**  
**LICENSING**

We are in receipt of your email requesting comment on the UXO Verification and Clearance Programme planned for the Hywind Scotland Pilot Park Offshore Floating Wind Turbine area and the associated cable corridor to the Scottish mainland submitted by **Statoil for Hywind (Scotland) Limited**.

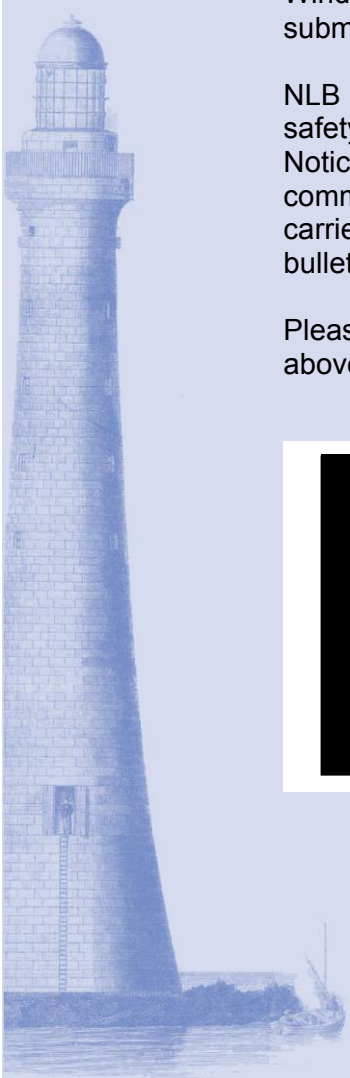
NLB are content that the necessary safety and mitigation measures relating to the safety of the mariner have been included within the application. We would require that Notices to Mariners and radio Navigation warnings are promulgated prior to the commencement of the project stating the nature and timescale of the work to be carried out and must be communicated to the fishing industry through the appropriate bulletins and publications in order that they are informed of any possible hazard.

Please advise if we can be of any further assistance, or if clarification of any of the above is required.



the safety of

to: ISO 9001:2000 · The International Safety Management Code (ISM) ·



T: +44 (0)1224 876544  
MS\_Renewables@gov.scot

Rosanne Dinsdale  
Licensing Operations Team  
Marine Scotland  
375 Victoria Road  
Aberdeen  
AB11 9DB

## **HYWIND (SCOTLAND) LTD - UNEXPLODED ORDNANCE DISPOSAL - REQUEST FOR MSS COMMENTS**

Marine Scotland Science (MSS) has reviewed the submitted application and has provided the following comments.

### **marine mammals**

MSS advise that it is likely that an EPS licence will be required for this work to dispose of unexploded ordnance. This is because there is a strong possibility that the work will generate noise levels sufficient to disturb cetaceans.

We also advise that MMOs will not be sufficient mitigation should the work be carried out in periods of darkness or other poor visibility. Where possible, the work should not be carried out under such conditions. If it is necessary to do this, then we would recommend that other mitigations such as PAM or ADDs are used. The applicants should also bear in mind that PAM is not effective for detection of seals and so it is likely that a combination of techniques may be required.

### **ornithology**

MSS has no comments on ornithology.

### **marine fish ecology**

MSS note that the activity is due to take place in the period of September 2016 for an estimated timescale of 2 weeks and that the licence application proposes a start date of 01 September 2016 with a completion date of 15 October 2016.

The area of interest, the mooring lines and cable corridor area, falls within the estimated spawning area for the Buchan component of the North Sea herring stock (Coull et al, 1998) which is reported to spawn between August and September (Coull et al, 1998) or September and October (Payne, 2010).

Without information on the potential noise produced throughout the clearance campaign, it is difficult to understand what the potential effects on spawning herring would be however, the short estimated two week duration of the activity, the intermittent nature of the noise produced the fact that each instance of noise production will be at a different location mean that it is unlikely that the activity will have population level effects.

Coull, K. A., Johnstone, R., & Rogers, S. I. (1998). Fisheries sensitivity maps in British waters. *Published and distributed by UKOOA Ltd, 9.*

Payne, M. R. (2010). Mind the gaps: a state-space model for analysing the dynamics of North Sea herring spawning components. *ICES Journal of Marine Science: Journal du Conseil*, fsq036.

Marine Laboratory, PO Box 101, 375 Victoria Road,  
Aberdeen AB11 9DB

[www.scotland.gov.uk/marinescotland](http://www.scotland.gov.uk/marinescotland)



**diadromous fish**

As noted in the application in connection with marine mammals, the main issue of concern is potential death or injury to animals in the vicinity of the of the blast area. In the case of marine mammals, mitigation measures to reduce this potential risk are proposed, including a mitigation zone and detonation of UXOs in sequence with the smaller charges detonated first in a soft start or ramp up procedure wherever possible.

Diadromous fish such as salmon and sea trout could be present in September. Even if they are in the vicinity of the operations, this may not be known as they will not necessarily be visible as the work will take place in the open sea. If there is no evidence of any being present, no requests are made. However, particularly if there are aggregations of salmon or sea trout for example close to the coast, there may be clear evidence of their presence, such as salmon or sea trout jumping. If so, mitigation measures along similar lines to those proposed by Hywind for marine mammals should be put in place.

**benthic ecology**

No information provided on potential impacts on benthic habitats however, as detailed in previous responses, any direct effects on *Sabellaria* reef should be minimised as much as possible. No further comments on benthic ecology.

**physical environment**

MSS has no comments on physical environment.

**aquaculture**

MSS aquaculture planning has no specific comments on the Hywind Scotland Pilot Park Project - Unexploded Ordnance Disposal – Marine Licence Application. There are no further comments to add to those made In April 2016 in response to the Plan for Horizontal Directional Drilling (HDD) activities 2016.

**socio economics**

MSS has no comments on socio economics.

Hopefully these comments are helpful to you. If you wish to discuss any matters further contact the MSS Renewables in-box [MS\\_Renewables@scotland.gsi.gov.uk](mailto:MS_Renewables@scotland.gsi.gov.uk).

Yours sincerely



**Paul Stainer**

Marine Scotland Science

23 August 2016

United Kingdom

Tel: +44 (0) 20381 72426  
Fax: ++44 (0)2380 329104  
E-mail: [navigationsafety@mcga.gov.uk](mailto:navigationsafety@mcga.gov.uk)

Rhianna McDowell  
Marine Licencing  
Marine Scotland

Your ref: **06070**  
Our ref: **MNA 053/008/0028**

17 August 2016

Dear Rhianna

### **Hywind (Scotland) Ltd – Unexploded Ordnance Disposal**

Thank you for the opportunity to comment on the potential impact of the above proposed works on the safety of navigation.

The Marine Licence application and supporting documentation have been considered by Navigation Safety Branch. On this occasion, the Maritime and Coastguard Agency (MCA) has no objection to consent being granted provided all maritime safety legislation is followed and the conditions below are applied:

#### Conditions:

1. The Licencee must ensure that local mariners and fishermen's organisations are made fully aware of the activity through local notices to mariners.
2. The Licencee must ensure that HM Coastguard, in this case [nmoccontroller@hmcg.gov.uk](mailto:nmoccontroller@hmcg.gov.uk), The National Maritime Operations Centre is made aware of the works prior to commencement.
3. The Licencee must notify the UK Hydrographic Office to permit the promulgation of maritime safety information and updating of nautical charts and publications through the national Notice to Mariners system.

If you require any further information please let me know.

Yours sincerely,

Helen Croxson  
Navigation Safety Branch

## Dinsdale R (Rosanne)

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**From:** Dacre Sarah (Energy Development) <Sarah.Dacre@decc.gsi.gov.uk>  
**Sent:** 02 August 2016 12:51  
**To:** Dinsdale R (Rosanne)  
**Cc:** Environmental Management Team; Bryant Benjamin (Energy Development); MS Marine Renewables  
**Subject:** RE: Hywind (Scotland) Ltd - Application for Marine Licence - UXO Disposal

Rosanne,

The Environmental Management Team within the Oil & Gas Environment and Decommissioning Unit (which is now part of The Department of Business, Energy and Industry Strategy (formerly DECC)) received the email below from the Oil and Gas Authority. Whilst on this occasion we have reviewed the proposal and have no comment or objections, we would appreciate being added to your consultation list for future Marine License applications so we can consider them in view of the oil and gas activities we regulate. Our team email for correspondence is EMT@decc.gsi.gov.uk

Many thanks,

Sarah



Dr Sarah Dacre  
Senior Environmental Manager  
Environmental Management Team  
Offshore Oil and Gas Environment & Decommissioning  
Energy Development Unit  
E: [sarah.dacre@decc.gsi.gov.uk](mailto:sarah.dacre@decc.gsi.gov.uk) T: 01224 254098  
[www.gov.uk/beis](http://www.gov.uk/beis) | [twitter.com/beisgovuk](https://twitter.com/beisgovuk)

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**From:** [Rosanne.Dinsdale@gov.scot](mailto:Rosanne.Dinsdale@gov.scot) [<mailto:Rosanne.Dinsdale@gov.scot>]  
**Sent:** 26 July 2016 15:08  
**To:** [marineenergy@snh.gov.uk](mailto:marineenergy@snh.gov.uk); [erica.knott@snh.gov.uk](mailto:erica.knott@snh.gov.uk); [Mareike.Moeller-Holtkamp@snh.gov.uk](mailto:Mareike.Moeller-Holtkamp@snh.gov.uk); [Sarah.Canning@jncc.gov.uk](mailto:Sarah.Canning@jncc.gov.uk); [Karen.Hall@jncc.gov.uk](mailto:Karen.Hall@jncc.gov.uk); [planning.aberdeen@sepa.org.uk](mailto:planning.aberdeen@sepa.org.uk); [renewables@sff.co.uk](mailto:renewables@sff.co.uk); [navigation@nlb.org.uk](mailto:navigation@nlb.org.uk); [graeme.leslie@uk.bp.com](mailto:graeme.leslie@uk.bp.com); OGA Correspondence; White Robert (Oil and Gas Authority); [navigationsafety@mcga.gov.uk](mailto:navigationsafety@mcga.gov.uk); [MS\\_Renewables@gov.scot](mailto:MS_Renewables@gov.scot); [Paul.Stainer@gov.scot](mailto:Paul.Stainer@gov.scot); [DIO-Safeguarding-Offshore@mod.uk](mailto:DIO-Safeguarding-Offshore@mod.uk)  
**Cc:** [Joao.Queiros@gov.scot](mailto:Joao.Queiros@gov.scot); [Catarina.Aires@gov.scot](mailto:Catarina.Aires@gov.scot); [Paul.Cook2@gov.scot](mailto:Paul.Cook2@gov.scot)  
**Subject:** Hywind (Scotland) Ltd - Application for Marine Licence - UXO Disposal

Dear Sir/Madam

### MARINE (SCOTLAND) ACT 2010 & MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED), PART 4 MARINE LICENSING

06070 – Hywind (Scotland) Ltd – Unexploded Ordnance Disposal

Marine Scotland Licensing Operations Team (MS-LOT) have received the attached proposal under the above Acts for a Marine Licence for unexploded ordnance disposal within the location of the Hywind Scotland Pilot Park Project, including the cable corridor from Hywind (Scotland) Ltd.



Please find the application form attached. A large number of charts support the documents which can be found at the following site: <http://www.gov.scot/Topics/marine/Licensing/marine/scoping/Hywind>

Please forward any comments you may have on these proposals, in an electronic format to ([MS.MarineRenewables@gov.scot](mailto:MS.MarineRenewables@gov.scot)) by 23<sup>rd</sup> August 2016.

If you are unable to meet this deadline please inform us in writing as soon as possible. We will aim to grant an extension to the consultation period.

Should you have any queries please do not hesitate to contact us.

Yours sincerely

Rosanne

Rosanne Dinsdale  
Marine Renewables Casework Officer  
**Marine Scotland** - Marine Planning & Policy

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Direct Dial: +44 (0)1224 295 331  
Fax: +44 (0)1224 295 524  
Email: [rosanne.dinsdale@gov.scot](mailto:rosanne.dinsdale@gov.scot)  
Website: <http://www.gov.scot/Topics/marine/Licensing/marine>



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Tha am post-d seo (agus faidhle neo ceanglan còmhla ris) dhan neach neo luchd-ainmichte a-mhàin. Chan eil e ceadaichte a chleachdadh ann an dòigh sam bith, a' toirt a-steach còraichean, foillseachadh neo sgaoileadh, gun chead. Ma 's e is gun d'fhuair sibh seo le gun fhiosd', bu choir cur às dhan phost-d agus lethbhreac sam bith air an t-siostam agaibh, leig fios chun neach a sgaoil am post-d gun dàil.

Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson

## Dinsdale R (Rosanne)

---

**From:** McLulich, Hamish <hamish.mclulich@uk.bp.com>  
**Sent:** 23 August 2016 11:33  
**To:** Dinsdale R (Rosanne); marineenergy@snh.gov.uk; erica.knott@snh.gov.uk; Mareike.Moeller-Holtkamp@snh.gov.uk; Sarah.Canning@jncc.gov.uk; Karen.Hall@jncc.gov.uk; oga.correspondence@oga.gsi.gov.uk; robert.a.white@oga.gsi.gov.uk; navigationsafety@mcga.gov.uk; MS Renewables; Stainer P (Paul) (MARLAB); DIO-Safeguarding-Offshore@mod.uk  
**Cc:** Aires C (Catarina); Queiros J (Joao); Caraballo, Antonio; Latas, Arnaldo; Fawcett, Vernon; Macaulay, Andrew J; Leif Delp  
**Subject:** RE: Hywind (Scotland) Ltd - Application for Marine Licence - UXO Disposal

Rosanne,

BP's response to the consultation is as below:

- a) Generally the information supplied is insufficient for us to evaluate the risk to the Forties pipeline from the UXO disposal proposed. For example there is no information about whether the 292 targets are evenly distributed or clustered together, nor their distance from Forties pipeline. In the time available we have asked Statoil for more information, and they have replied promptly and promised to forward further information when it is available. However we have yet to receive that further information. We would prefer that the application is not granted until BP has received and had time to review further detail about surveys to date and targets identified including locations.
- b) More specifically, based on the information provided to date:
  - It is not clear how Statoil has identified the 292 potential UXO targets, Statoil should provide BP with further information about the surveys already executed and potential targets that were identified.
  - BP is not able, at this stage, to establish a minimum allowable distance of the ordnance from the pipeline as this will be a function of the explosive quantity and type. Therefore
    - We understand that further surveys and UXO target identification will be carried out, and Statoil should notify BP of any UXO targets identified including type and size of UXO, location, proximity to other identified UXOs, and planned procedure for disposal. Disposal should not take place without giving BP appropriate time to comment (minimum of 2 weeks), and for any UXO within 1km of the FPS pipeline disposal should not take place without BP express approval.
    - If requested by BP, Statoil should be required to provide further information on a specific UXO and/or required to move the UXO to a more distant location for disposal. This applies whether the UXO is within 1km or further away than 1km from the Forties pipeline.
  - Given the proximity to the Forties Pipeline and the operation of specialized vessel(s), BP should be informed of planned vessel operations within 5 Km of pipelines and receive daily updates of activities.

I hope this is clear and in an acceptable format. Whilst the conditions above may look a bit general, this is a result of the sketchy information available to us. Our intent here is to ensure that Statoil can do the UXO disposal that they need to whilst ensuring proper protection of Forties pipeline from risk of damage.

Best regards,

Hamish

---

**From:** Rosanne.Dinsdale@gov.scot [mailto:Rosanne.Dinsdale@gov.scot]  
**Sent:** 16 August 2016 09:28  
**To:** marineenergy@snh.gov.uk; erica.knott@snh.gov.uk; Mareike.Moeller-Holtkamp@snh.gov.uk; Sarah.Canning@jncc.gov.uk; Karen.Hall@jncc.gov.uk; oga.correspondence@oga.gsi.gov.uk; robert.a.white@oga.gsi.gov.uk; navigationsafety@mcga.gov.uk; MS\_Renewables@gov.scot; Paul.Stainer@gov.scot; DIO-Safeguarding-Offshore@mod.uk; Mclulich, Hamish  
**Cc:** Catarina.Aires@gov.scot; Joao.Queiros@gov.scot  
**Subject:** FW: Hywind (Scotland) Ltd - Application for Marine Licence - UXO Disposal

Dear Sir/Madam,

Please note that the consultation detailed below is due to close on 23<sup>rd</sup> August 2016.

Kind regards,  
Rosanne

Rosanne Dinsdale  
Marine Renewables Casework Officer  
**Marine Scotland** - Marine Planning & Policy

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Direct Dial: +44 (0)1224 295 331  
Fax: +44 (0)1224 295 524  
Email: [rosanne.dinsdale@gov.scot](mailto:rosanne.dinsdale@gov.scot)  
Website: <http://www.gov.scot/Topics/marine/Licensing/marine>

Frequently  
Asked  
Questions

---

**From:** Dinsdale R (Rosanne)  
**Sent:** 26 July 2016 15:08  
**To:** 'marineenergy@snh.gov.uk'; 'Erica Knott ([erica.knott@snh.gov.uk](mailto:erica.knott@snh.gov.uk))'; 'Mareike.Moeller-Holtkamp@snh.gov.uk'; 'Sarah.Canning@jncc.gov.uk'; 'Karen Hall ([Karen.Hall@jncc.gov.uk](mailto:Karen.Hall@jncc.gov.uk))' ([Karen.Hall@jncc.gov.uk](mailto:Karen.Hall@jncc.gov.uk)); 'planning.aberdeen@sepa.org.uk'; 'renewables@sff.co.uk'; 'navigation@nlb.org.uk'; 'graeme.leslie@uk.bp.com'; 'oga.correspondence@oga.gsi.gov.uk'; 'robert.a.white@oga.gsi.gov.uk'; 'navigationsafety@mcga.gov.uk'; MS Renewables; Stainer P (Paul) (MARLAB); 'DIO-Safeguarding-Offshore@mod.uk'  
**Cc:** Queiros J (Joao); Aires C (Catarina); Cook P (Paul)  
**Subject:** Hywind (Scotland) Ltd - Application for Marine Licence - UXO Disposal

Dear Sir/Madam

## **MARINE (SCOTLAND) ACT 2010 & MARINE AND COASTAL ACCESS ACT 2009 (AS AMENDED), PART 4 MARINE LICENSING**

06070 – Hywind (Scotland) Ltd – Unexploded Ordnance Disposal

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If you are unable to meet this deadline please inform us in writing as soon as possible. We will aim to grant an extension to the consultation period.

Should you have any queries please do not hesitate to contact us.

Yours sincerely

Rosanne

Rosanne Dinsdale  
Marine Renewables Casework Officer  
**Marine Scotland** - Marine Planning & Policy

Scottish Government | Marine Laboratory | 375 Victoria Road | Aberdeen | AB11 9DB

Direct Dial: +44 (0)1224 295 331  
Fax: +44 (0)1224 295 524  
Email: [rosanne.dinsdale@gov.scot](mailto:rosanne.dinsdale@gov.scot)  
Website: <http://www.gov.scot/Topics/marine/Licensing/marine>



\*\*\*\*\*

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Tha am post-d seo (agus faidhle neo ceanglan còmhla ris) dhan neach neo luchd-ainmichte a-mhàin. Chan eil e ceadaichte a chleachdadh ann an dòigh sam bith, a' toirt a-steach còraichean, foillseachadh neo sgaoileadh, gun chead. Ma 's e is gun d'fhuair sibh seo le gun fhiosd', bu choir cur às dhan phost-d agus lethbhreac sam bith air an t-siostam agaibh, leig fios chun neach a sgaoil am post-d gun dàil.

Dh'fhaodadh gum bi teachdaireachd sam bith bho Riaghaltas na h-Alba air a chlàradh neo air a sgrùdadh airson dearbhadh gu bheil an siostam ag obair gu h-èifeachdach neo airson

Ms Rosanne Dinsdale  
Marine Scotland – Marine Planning & Policy  
Marine Laboratory, 375 Victoria Road,  
Aberdeen, AB11 9DB

JNCC ref: 3750 & 3751  
SNH ref: CNS REN OSWF  
DS HYWIND

23 August 2016

Dear Rosanne,

**Hywind Scotland Pilot park – UXO Clearance**  
**JNCC and SNH Advice on Licence Applications**

Thank you for consulting JNCC and SNH on this proposal from Hywind (Scotland) Ltd to verify and clear potential unexploded ordnance (UXO) found within the Hywind Scotland Pilot Park and cable route. We provide advice on potential impacts to natural heritage interests arising from this work, in relation to the marine licence application and the associated licence for possible disturbance of European protected species (EPS).

**Details of work**

The proposed work is to be undertaken between 1 September and 15 October 2016. A 50m wide corridor along the export cable route will be surveyed between Peterhead and the wind farm site, Buchan Deep. Potential targets will be verified using a remotely operated vehicle (ROV) and those positively identified will be detonated. The works are anticipated to last approximately two weeks, depending on the number of targets identified.

Approximately 15 detonations are anticipated. A “donor” charge will be used to detonate any UXOs identified, varying in size between 2.5 and 10kg depending on the target. The resulting explosion will also vary in size but a typical worst case would result in a 3m deep by 6m wide crater. The applicant has undertaken a brief review of potential impacts associated with underwater explosions which suggests the range within which fatality or injury could occur will be less than 600m from the source.

**JNCC & SNH advice**

We have considered the proposed activity in relation to the key natural heritage interests potentially affected by this UXO survey and clearance, namely marine mammals, including EPS (all cetacean species), and benthic interests previously recorded in the area.

**Marine mammals**

A range of marine mammal species have been recorded in the area, which could potentially be affected by the proposed works. These include seal species (harbour seal and grey seal) and

several species of cetacean (i.e. bottlenose dolphin, harbour porpoise, minke whale). We consider potential disturbance for EPS licensing requirements below. We note that while relatively few UXO detonations (~15) are anticipated compared to the number of survey targets (292), these detonations carry a risk of injury and / or fatality to marine mammals and therefore must be mitigated for.

**(a) Mitigation plan for UXO detonations:** We advise a Marine Mammal Mitigation Plan (MMMP) should be required by the regulator as a condition of the marine licence which should be agreed prior to the commencement of the proposed works and prior to issue of any EPS licence. Our advice on the scope and content of the MMMP is presented in **Annex A**. Note that this mitigation specifically relates to the UXO detonations and applies to both cetaceans and seals. It only needs to be implemented at those target locations where UXOs are identified (estimated as ~15)

SNH advise that the MMMP can also be used to discharge other requirements in relation to bottlenose dolphin as a qualifying interest of the Moray Firth Special Area of Conservation (SAC). SNH confirm that with implementation of the agreed MMMP, there will be no adverse impact on site integrity of the Moray Firth SAC arising from the Hywind UXO survey and clearance work.

We note there is a very slight risk of basking shark being present in the area, however, the mitigation identified for cetacean EPS will be equally appropriate to avoid any impacts on basking shark.

**(b) Close out report:** we recommend that a final / close-out report is submitted for any detonations undertaken. **Annex B** provides supporting detail on what we anticipate this document should contain.

### **EPS licensing requirements**

SNH advise that an EPS license is required for this work. As advised above, the MMMP should be submitted prior to issue of any EPS licence. Adoption of the agreed MMMP will mitigate against the risk of injury or fatality to any cetacean EPS from the UXO detonations, therefore it is only disturbance which needs to be considered and addressed under the EPS licensing requirements.

In this regard, the UXO detonations may also give rise to EPS disturbance, however, it will be infrequent and of limited duration. While there may be disturbance of EPS individuals SNH confirm that any such disturbance will not be detrimental to the maintenance of cetacean EPS populations at a favourable conservation status in their natural range.

The applicant states that, in instances where excavation is needed, the area will be surveyed using multi-beam echo sounder equipment which has the potential to cause disturbance to cetacean EPS. In such circumstances, SNH recommend the requirement for 30-minute pre-survey search for EPS is included as a condition of the EPS licence. Should a cetacean EPS be recorded within a 500m mitigation zone, there should be a delay in using the echo sounder equipment. In this circumstance, the marine mammal observer can be a member of the vessel crew as long as they have completed a JNCC approved course. This is only needed for objects that require the use of multi-beam echo sounders.

### **Benthic interests**

We note that *Sabellaria spinulosa* reefs were recorded during pre-application benthic surveys. Should any reefs be recorded during the proposed UXO survey and clearance, we recommend details are included within the close-out report –see **Annex B**.

### **Further information**

This is the first time the SNCBs have dealt with proposed UXO detonations at a Scottish offshore wind farm site (previously having only dealt with UXO survey proposals). We are happy to discuss mitigation proposals or any other aspects of this advice in person, or by teleconference, if needed. If you have any queries about this response, please contact myself, Sarah Canning, at JNCC or Catriona Gall at SNH.

Yours sincerely,

**Dr Sarah Canning**

Offshore Industry Advisor

[sarah.canning@jncc.gov.uk](mailto:sarah.canning@jncc.gov.uk)

01224 266589

**Catriona Gall**

Marine Renewables Casework Adviser

[Catriona.Gall@snh.gov.uk](mailto:Catriona.Gall@snh.gov.uk)

01738 458665

## Annex A: Marine Mammal Mitigation Plan (MMMP)

We advise a Marine Mammal Mitigation Plan (MMMP) should be required by the regulator as a condition of the marine licence which should be agreed prior to the commencement of the proposed works. The MMMP should take into account JNCC Guidelines for minimising the risk of disturbance and injury to marine mammals while using explosives<sup>1</sup>. For avoidance of doubt, this MMMP does not need to address the survey work used to locate and / or verify the UXOs.

We suggest that the MMMP includes the following information:

- **Details of proposed works:** this should include (if possible) a map of the location of potential detonations and timings.
- **Marine mammals - context:** this doesn't need to be a detailed account of the ecology of each species, but should include relevant information specific to the work being proposed. For example, densities and distribution of each species likely to be encountered within the area and whether the works will coincide with species breeding seasons. This information is in the ES therefor only a brief summary will be required in the MMMP.
- **Assessment of potential impacts:** Hywind have undertaken a health & safety risk assessment of potential UXOs in the area, discussing the types of UXO which may be encountered (see the Ordek report provided as part of the environmental statement<sup>2</sup>). We advise that possible impacts from these UXOs should be considered in relation to marine mammals. This could be done by collating available information on injury or disturbance zones, and available noise modelling. We also recommend reviewing UXO survey and clearance work been undertaken at other UK wind farm sites.
- **Mitigation:** this is required for the UXO detonations and should broadly follow JNCC guidelines:
  - Establish a **mitigation zone of 1km radius** around each detonation location.
  - All detonations should take place during daylight hours.
  - In conditions of good visibility (sea state 3 or less) visual monitoring of the mitigation zone should be undertaken for 1 hour prior to detonation, during the detonation procedure and for 15 minutes' post-detonation.
  - Visual observations should be undertaken by dedicated MMOs (i.e. do not have a dual role on the vessel) who have attended an approved JNCC course. At least one MMO must be available for every search however consideration should be given as to whether this is sufficient to effectively search the 1km mitigation zone.
  - During periods of poor visibility, passive acoustic monitoring (PAM) should be used to complement visual survey. PAM should be undertaken by trained personnel.
  - Should marine mammals be detected (visually or acoustically) within the mitigation zone during the pre-detonation search, detonation should be delayed until the animal is not recorded within the zone for 20 minutes.
  - It may also be possible to consider use of pro-active measures to clear marine mammals from the area prior to detonations. For certain species, the use of acoustic deterrent devices (ADDs) may be considered effective and we are happy to discuss options for incorporating such mitigation into the proposed operational procedure.
- **Communications, health and safety:** details of how lines of communication will be established between the MMO and detonation personnel, corrective procedures should

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<sup>1</sup> [http://jncc.defra.gov.uk/pdf/JNCC\\_Guidelines\\_Explosives%20Guidelines\\_August%202010.pdf](http://jncc.defra.gov.uk/pdf/JNCC_Guidelines_Explosives%20Guidelines_August%202010.pdf)

<sup>2</sup> Hywind Scotland Pilot Park Environmental Statement. April 2015.



PAM equipment fail and relevant health and safety requirements specific for mitigation personnel;

- Reporting: details of what to include in the closing report are provided in Annex B.

Should the MMO/PAM operators be on a separate vessel patrolling the external perimeter of the mitigation zone, consideration should be given to the speed of the vessel to ensure the all areas of the mitigation zone are observed evenly while still providing appropriate monitoring conditions.

If there are multiple UXO in close proximity to be disposed of near simultaneously, the sequence of detonations should, where practicable, start with the smallest detonation and end with the larger detonations.

### **Annex B: Close-out Report**

A close-out report detailing the UXO operations, marine mammal mitigation activities and any marine mammal encounters should be sent to Marine Scotland, SNH and JNCC. In relation to **marine mammals**, the report should include:

- Details of the operation, including information on the size of charges used, start times of explosive detonations and size of craters produced;
- Start and end times of MMO/PAM searches and times of ADD deployment if appropriate;
- Details of any marine mammals observed and mitigation measures taken;
- Details of any technical problems encountered and instances of non-compliance.

A discussion of any problems encountered relating to the mitigation protocol will be welcomed including suggestions for improvements.

We are also aware that ***Sabellaria spinulosa* reefs** were recorded during pre-application benthic surveys. Many of those identified were away from the proposed turbine deployment area and the final cable route was planned to minimise potential impacts to *Sabellaria* reefs. However, isolated patches were identified within these areas.

If recorded, details of any reefs affected by the UXO clearance should be included in the close-out report. This should include (where possible) details of the location, size and any damage caused as a result of the detonations.