

# Norfolk Vanguard Offshore Wind Farm Outline Marine Traffic Monitoring Strategy

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For and on behalf of Norfolk Vanguard Limited

Approved by: Rebecca Sherwood

Signed:



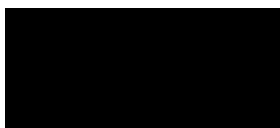
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## Glossary

AIS	Automatic Identification System
CCTV	Closed Circuit Television
CPA	Closest Point of Approach
DML	Deemed Marine License
EIA	Environmental Impact Assessment
ES	Environmental Statement
MAIB	Maritime Accident and Investigation Branch
MCA	Maritime and Coastguard Agency
MGN	Marine Guidance Note
MMO	Marine Management Organisation
nm	Nautical Mile
NRA	Navigational Risk Assessment
OREI	Offshore Renewable Energy Installation
OWF	Offshore Wind Farm
RNLI	Royal National Lifeboat Institute

## 1 INTRODUCTION

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### 1.1 Purpose

1. At the request of the Maritime and Coastguard Agency (MCA), an Outline Marine Traffic Monitoring Strategy has been prepared by Vattenfall Limited for Norfolk Vanguard. The purpose of the document is to agree a method with the MCA for the use of marine traffic monitoring during both the construction and operation of Norfolk Vanguard to ensure that the Navigational Risk Assessment (NRA) remains accurate through both the construction and operational phases of Norfolk Vanguard. The results of the marine traffic monitoring will also be reviewed against the predictions made in the NRA for the project with respect to anticipated changes in traffic patterns as well as to the effectiveness of the mitigation measures implemented (see Volume 1 Chapter 15 Shipping and Navigation of the Environmental Statement (ES) (Document 6.1)).

### 1.2 License Details

2. Following consultation with the MCA, the following text has been incorporated into the Deemed Marine Licence (DML) (Requirement 19(4)):
  - *Construction monitoring must include traffic monitoring in accordance with the outline navigation monitoring strategy, including the provision of reports on the results of that monitoring periodically as requested by the MMO in consultation with the MCA.*
  - *Post-construction traffic monitoring in accordance with the outline navigation monitoring strategy, including the provision of reports on the results of that monitoring periodically as requested by the MMO in consultation with the MCA.*

## 2 GUIDANCE

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### 2.1 MCA

3. Current UK guidance on navigational monitoring is contained within Marine Guidance Note (MGN) 543 (Merchant and Fishing) Safety of Navigation: Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response (MCA, 2016).
4. Specifically, Annex 4 of this guidance document discusses the safety and mitigation measures recommended for OREIs during the construction, operational and decommissioning phases, noting that these should be appropriate to the level and type of risk determined in the Environmental Impact Assessment (EIA). One of the potential measures listed within Volume 1 Chapter 15 of the ES is monitoring by Automatic Identification System (AIS) along with “other agreed means” which will be discussed with the MCA as part of the post consent process (examples are given in section 3.2).

### 3 AGREED CONTROL MECHANISM

#### 3.1 Scope

5. The type, duration, area and frequency of navigational monitoring shall be agreed post-consent, in consultation with the MCA. From consultation with the MCA undertaken to date, the scope of monitoring summarised in Table 3.1 is understood to be acceptable in order to mitigate any potential impact of Norfolk Vanguard.

**Table 3.1 Scope of Navigational Monitoring**

Type	AIS only.
Duration	Minimum of 28 days covering seasonal variations in traffic patterns and fishing operations.
Area	Within a 10 nautical mile (nm) buffer of the 'as built' OWF sites.
Frequency	Annually throughout the construction phase (construction traffic monitoring surveys) and the first three years post-construction (post construction traffic monitoring surveys).
Reporting	A report will be submitted to the Marine Management Organisation (MMO) and the MCA at the end of each year of the construction period and at the end of the first, second and third years of operation.

6. The associated report for each survey (construction and post-construction) shall be undertaken using AIS data captured by offshore AIS recording equipment which shall be installed at the Offshore Wind Farm (OWF) sites either on installations or vessels working at the sites. The location of this equipment shall be chosen so as to ensure that a high level of coverage is obtained for both of the OWF sites and the adjacent sea area (typically this is within 10 nautical miles of the OWF sites).
7. The AIS recording equipment shall not transmit any information and is not considered to be an Aid to Navigation. The AIS shall not be actively monitored and shall not be transmitted directly to shore; instead it shall be recovered periodically for both storage and use within the assessment as required.

#### 3.2 Assessment

8. The AIS data shall be processed and assessed by an experienced navigation consultant based upon the traffic survey methodology outlined in Annex 1 of MGN 543 and shall be reviewed against the conclusions of the NRA. This may include, but not be limited to, the following information included within the NRA:
  - Main route 90th percentiles;
  - Main route Closest Point of Approach (CPA);
  - Maritime Accident and Investigation Branch (MAIB) incident data; and
  - Royal National Lifeboat Institution (RNLI) incident data.



9. Additionally, each survey report shall analyse the navigational features found in proximity to the OWF sites, noting any changes to the features.

### **3.3 Submission**

10. Upon completion, each navigational monitoring assessment shall be submitted to the MCA. Should there be any changes noted since the submission of the NRA, consideration shall be given to meeting with the MCA to discuss the results in further detail.

## 4 REFERENCES

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MCA. (2016) *Marine Guidance Note 543 (Merchant and Fishing) Safety of Navigation: Offshore Renewable Energy Installations (OREIs) – Guidance on UK Navigational Practice, Safety and Emergency Response*. Southampton: MCA.