-----Original Message-----
From: XXXX
Sent: 26 October 2010 11:06
To: MAIB
Subject: Offshore Wind Farms

Hi There,

I am a student at the University of Strathclyde, currently in my 5th year of a Naval Architecture degree.
As my group project for this year we are looking to design a vessel for safe access to offshore wind farms.

Would it be possible for you to provide any reports or statistics you have on the safety of these wind farms and any accidents that have occurred in the transfer of personnel from the support vessel to the turbine.

Any help you can provide would be very much appreciated,

Kind Regards,
XXXX

Dear XXXX

F0007108 – Offshore wind farm statistics

I am writing to confirm that the Marine Accident Investigation Branch (MAIB) of the Department for Transport has now completed its search for information on accidents while on, or accessing, wind farms which you requested on 26 October 2010.

Information on a completed preliminary examination while collected wind farm workers is available on our web site.

http://www.maib.gov.uk/publications/completed_preliminary_examinations/completed_preliminary_examinations_2010/windcat_3.cfm

Details of several more cases are attached.

Wind farms fall outside the remit of MAIB. Details of fatalities reported to HSE, and how to request further information are available via this link:

http://www.hse.gov.uk/foi/fatalities/index.htm

In keeping with the spirit and effect of the Freedom of Information Act, all information is assumed to be releasable to the public unless exempt. The Department may, therefore, be simultaneously releasing to the public the information you requested, together with any related information that will provide a key to its wider context.

If you are unhappy with the way the MAIB has handled your request or with the decisions made in relation to your request you may complain within two calendar months of the date of this mail by replying to me at the above address. Please see attached details of the Department for Transport's complaints procedure and your right to complain to the Information Commissioner.

If you have any queries about this email, please contact me. Please remember to quote the reference number above in any future communications.

Yours sincerely
XXXX
Freedom of Information Officer
Marine Accident Investigation Branch
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maib@dft.gsi.gov.uk

Incidents reported to MAIB involving operational windfarms and access to them.

Case Number **0155/2010** **08/02/2010** **Accident To Person**
Regulation **Accident to Person** Status **Closed**
Location **Coastal waters** **English** **5308.0 N** **27.0 E**
Natural Light **Light** Sea State **Calm <2 ft**
Visibility **Good (5 - 10)** Wind force Range **0-3**
Other commercial Dead **0** Injured **1** **Minor Damage**
Small commercial motor vessel Flag **U.K.**
Other **0.01** gt
When: **Other offshore operations** **0.01** Reg. L **17.25** LOA

Deck
Contact
Bridge procedures
Navigation/communication-equipment
Bridge Control Equipment
Location: **Navigation/communication control space**
Operator error
Human factor
People
Inattention

Safety
General shipboard activities
General - Unsafe practices
Location: **External stairway/ladder/gangway**
Ignoring warning notice/safety colour coding
Non-compliance with policy, legislation, standards (national/international)
Means of Access (to and from ship)
Location: **External working deck/shelter**
Other - transferring ship to boat or boat to quay

Safe ship environment
Location: **Other internal deck/space**
Stumbling/tripping over fixed door sill, step, obstruction
Human factor
People
Complacency
Knowledge of ship operations inadequate

Injured Details

Age	**35-39**		
Gender	**Male**		
Region	**UK and Western Europe**		
Hours Worked	**3.00**	Hours Worked since off Duty for 4 Hours	**12.00**
On/Off Duty?	**On duty**	Days at Sea	**1.00**
Injury	**Strains - strained back**		
Rank	**Passenger**		

An 18m fast cat work boat was servicing a wind farm, with 2 pax onboard. Directly astern of the vessel was a test pile (now disused and no longer required), the position of which was well marked and known to the skipper. While the vessel was manoeuvring within about 3 m of this pile, the skippers hand slipped on the throttle controls, pulling the port throttle to full astern. The skipper realised there was a problem, and quickly tried to stop the vessel from moving astern, but as the pile was so close, there was not time or room to do so. The vessel struck the pile, causing minor damage to the stern fenders and deck plating. The impact caused a passenger, who was moving around the interior of the vessel, to be thrown off his feet, and to fall against furniture, and injured himself. The pax injuries did not seem

to be very serious at that time, and he mounted the turbine to work as usual, but later reported sick and was taken to hospital were back injuries were diagnosed.
Once the vessel was safely clear of the pile and the situation stabilised the skipper checked around for further damage ' no serious damage was found. No water ingress.

Issues:

1. The test pile is no longer needed and presents a relatively minor, but never-the-less unnecessary hazard to craft when manoeuvring at the adjacent turbine. It should perhaps be removed; alternatively the access ladder to the adjacent turbine should be moved so that it is as far as possible away from the test pile, with easier access for attending craft.
2. Passengers should, in accordance with existing safety policy, remain seated at all times when the vessel is underway. Various signs and posters are displayed around vessels, and this requirement is re-enforced during the skipper's pre-departure safety brief for each trip.

Incidents reported to MAIB involving operational windfarms and access to them.

Case Number **0518/2005** **18/04/2005** **Hazardous Incident**
Regulation **Outside MAIB Regulations** Status **Closed**
Location **Coastal waters** **Welsh**
Mostyn
Natural Light **Light** Sea State **Rough**
Visibility **Unknown** Wind force Range **7-9**
Passenger Dead **0** Injured **0**
HSC, vehicle/passenger ferry Flag **U.K.**
Catamaran **0.01** gt
When: **Other offshore operations** **0.01** Reg. L **12.00** LOA
Safety
General shipboard activities
Involving Passenger launch/Workboat operation
Due to vessel movement
Safety equipment and emergency response
Lifeboat/Rescue craft

A specialised catamaran was contracted to a wind farm company. The vessel would take up to 12 engineers out to the turbines and drop them off on a daily basis. They would leave port at 0730 returning the same day. The catamaran would stand by as the safety vessel whilst the engineers wee deployed on the turbines. The weather is checked before leaving harbour and on the day in question was okay. On reaching the turbines the weather was fine and the 9 engineers were dropped off on 4 turbines. Shortly after at about 0930 the wind increased and the skipper of the vessel called the operations director who said a cold front was passing through. The rough conditions meant the engineers could not get off the wind turbines. In situations where personnel may be trapped on the turbines, grab bags can be deployed which provide sufficient food for 3 days. 2 bags were carried onboard and were given to two of the turbines. Standard procedure was for additional grab bags to be brought by the lifeboat, which is what happened. The support vessel then sort sheltered from the weather. At 1900 that day when the wind abated, the catamaran returned to pick up the engineers.

Incidents reported to MAIB involving operational windfarms and access to them.

Case Number **1004/2004** **20/07/2004** **Fire/Explosion**
Regulation **Accident** Status **Closed**
Location **Coastal waters** **English** **5324.0 N** **328.0 W**
Holyhead
Natural Light **Light** Sea State **Moderate**
Visibility **Good (5 - 10)** Wind force Range **4-6**
Other commercial Dead **0** Injured **0** **Minor Damage**
Other Flag **U.K.**
722.00 gt
When: **Other offshore operations** **0.01** Reg. L **58.70** LOA

Safety
General shipboard activities
General - Unsafe practices
Other unsafe practice
Pollution
Fire
Location: **Store space**
Other, less than 10 tonne
Human factor
People
Perception of risk
System - Company and organisation
Company standing orders inadequate, insufficient, conflicting

A survey vessel was undertaking maintenance of electrical cables at a wind farm. She was moored on a four point mooring.
Work was being undertaken on the deck area above the wheelhouse to remove redundant fittings. It appears that either stores were ignited or paint dropped onto stores situated in the store at the port after corner of the engine room. Initial reports suggest that there was a fire watcher but this has not been confirmed. The engineer was taken to hospital as a precaution but was released and returned onboard.
The fire was extinguished using the fixed CO2 system. The company marine superintendent arrived on scene some 6 hours later and re-entered the engine room using BA. About 90% of the damage was by smoke and an electrical wiring loom was also burnt. A tug was chartered to recover the vessel to Liverpool for repairs.
The company are conducting an investigation.
There were no injuries and there is no suggestion that the fire was intentionally set.

Incidents reported to MAIB involving operational windfarms and access to them.

Case Number **1257/2008** **26/08/2008** **Accident To Person**

Regulation	**Accident to Person**	Status	**Closed**
Location	**Coastal waters**	**Non UK**	
Natural Light	**Light**	Sea State	**Moderate**
Visibility	**Good (5 - 10)**	Wind force Range	**4-6**

Dry cargo Dead **0** Injured **1** **No Damage**

General cargo Flag **U.K.**

479.00 gt

When: **Other offshore operations** **0.01** Reg. L **41.95** LOA

Safety

General shipboard activities

During Lifting Operation

Location: **External working deck/shelter**

Operator error

Human factor

Vessel movement

Technical factor

Environment

Heavy Weather

Injured Details

Age	**16-19**		
Gender	**Male**		
Hours Worked	**4.00**	Hours Worked since off Duty for 4 Hours	**4.00**
On/Off Duty?	**On duty**	Days at Sea	**6.00**
Injury	**Crush injury**		
Rank	**Rating - Deck**		

Two ABs were working on the deck of a 42m workboat assisting with the anchor movements of a cable laying barge on a wind farm close to the Belgium coast. In preparation for the use of anchors by the barge, anchoring equipment was being moved from the ship's store to the deck using the ship's crane. The IP (one of the ABs) was acting as slinger and banks man. When a load was landed on deck, the IP moved to disconnect the crane hook. As he did so, he trapped the fingers on his right hand between the hook and the load. The IP was landed ashore to a local hospital for treatment. Internal investigation identified that a lack of consideration of the weather conditions experienced was a significant contributing factor to this accident.

Incidents reported to MAIB involving operational windfarms and access to them.

Case Number **1502/2009** **27/10/2009** **Accident To Person**

Regulation	**Accident to Person**	Status	**Closed**
Location	**Coastal waters**	**English**	
Natural Light	**Darkness**	Sea State	**Calm <2 ft**
Visibility	**Mod. 2 - 5 nm (3)**	Wind force Range	**0-3**

Other commercial Dead **0** Injured **1** **No Damage**

Associated with offshore industry Flag **U.K.**

Other **0.01** gt

When: **Other offshore operations** **0.01** Reg. L **15.43** LOA

Safety

General shipboard activities

Involving Mooring Operations

Location: **Other external deck**

Sudden tensioning of line

Human factor

People

Inattention

Vessel movement

Injured Details

Age	**40-44**
Gender	**Male**
Region	**UK and Western Europe**
Hours Worked	**3.00**
On/Off Duty?	**On duty**
Injury	**Crush injury**
Rank	**Rating - Deck**

A wind farm tender vessel had dropped off a crew of riggers on one of the wind farm platforms. As the vessel took up position off the structure, a deck hand picked up a mooring line from the buoy with the purpose of tethering to the structure.

The eye was put around the bollard and with the assistance of the tide, the vessel backed off. As the weight came on the line, it fouled a fender and the crew member attempted to clear the line. In doing so, his left had got trapped between the rope and the gunwale and crushed his fingers.

As the injured person took of his glove, he noticed his fingers were hanging off. The skipper provided the injured person with first aid and headed towards shore and alerted the office.

On arrival ashore, the injured person was transferred by a taxi to the hospital where he required surgery.

The company conducted an investigation and recognised that the IP was not handling the ropes in accordance with the safe working practices. They also identified that the skipper should have alerted the authorities so as to provide prompt medical assistance if required. The company will be sending a circular to its fleet.

Incidents reported to MAIB involving operational windfarms and access to them.

Case Number **1582/2006** **29/09/2006** **Contact**
Regulation **Accident** Status **Closed**
Location **Coastal waters** **English**
Natural Light **Darkness** Sea State **Unknown**
Visibility **Unknown** Wind force Range **0-3**
Other commercial Dead **0** Injured **0** **No Damage**
Associated with offshore industry Flag **Denmark**
Other **3332.00** gt
When: **Other offshore operations** **0.01** Reg. L **91.76** LOA
Deck
Bridge procedures
Communications/Orders
Location: **Complete vessel**
No, or inadequate, company orders
Human factor
System - Company and organisation
Operating instructions inadequate

When approaching an offshore windmill to conduct servicing operations, an offshore support vessel was struck by the tip of a windmill propeller blade. There was no damage to the vessel and there were no injuries, but the tip of the blade was damaged. The accident occurred because the propeller was not secured in a fixed position, and was rotating as the vessel approached. Following the accident, new procedures were agreed between the ship operator and the wind farm operator to ensure that the propellers are locked during future similar operations. A method statement and checklist has been produced to support the new procedures.

Incidents reported to MAIB involving operational windfarms and access to them.

Case Number **1683/2003** **14/11/2003** **Heavy Weather Damage**
Regulation **Outside MAIB Regulations** Status **Closed**
Location **Coastal waters** **Welsh** **5319.0 N** **329.0 W**
Natural Light **Darkness** Sea State **Rough**
Visibility Wind force Range **7-9**
Other commercial Dead **0** Injured **0**
Other Flag **Germany**
Crane barge **0.01** gt
When: **Other offshore operations** **0.01** Reg. L **0.01** LOA
Machinery
Deck machinery
Crane
Other

Jack up crane barge working at the North Hoyle Offshore Wind Farm, in the Jacked up position. Crane secured into wind and lashed. Barge de-manned to skeleton crew. Wind rose to gusts measured at 30 m/sec (force 11-12) and shifted direction through 90 degrees. Crane unable to be swung into wind, and blew over, No injuries to person. HSE Liverpool Offshore are investigating - copy of their report requested.