



# PLAYING SAFE BWEA H&S DATABASE IN ACTION

by

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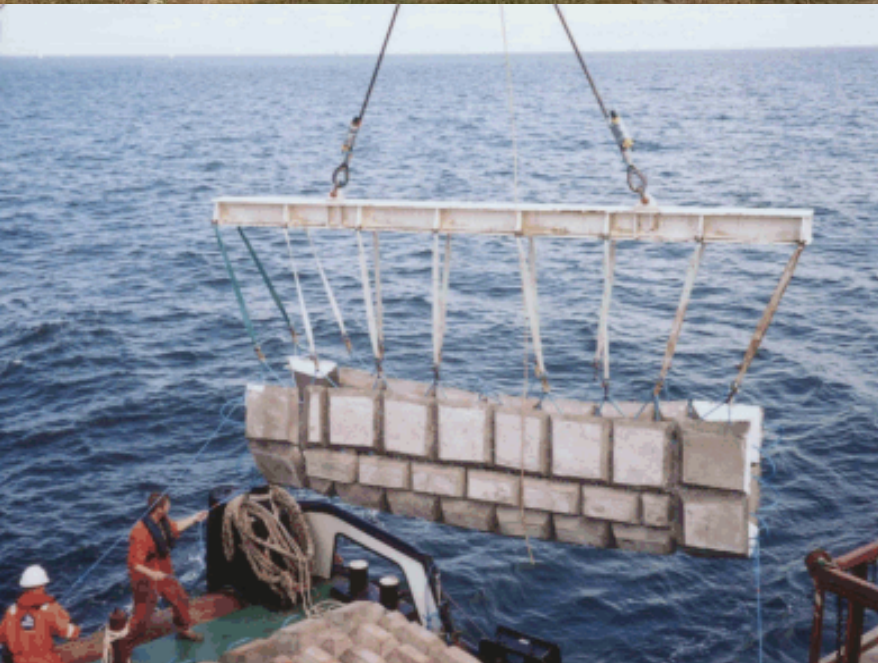
on

11th October 2006

**BWEA28**



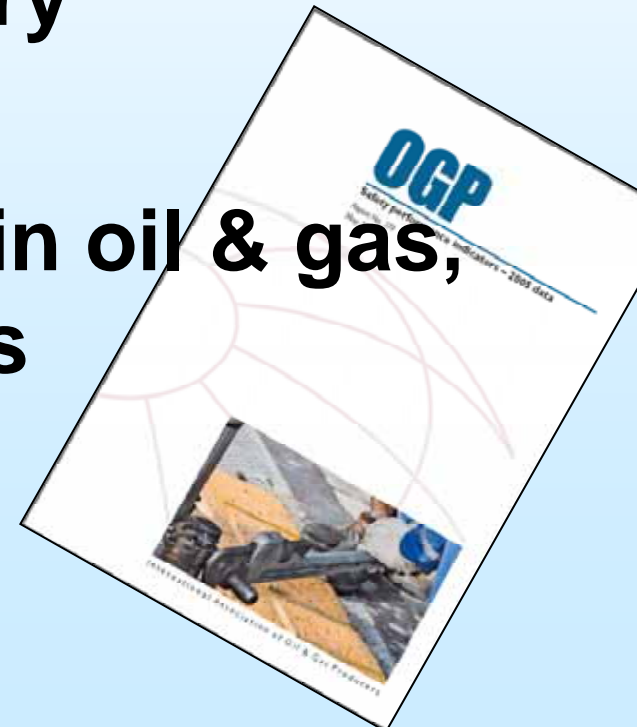
**Learning from  
experience  
throughout all  
wind farm  
development &  
operational  
phases**





## WHY A DATABASE INITIATIVE?

- Concept first launched in early 2005
- Well accepted by many companies within the UK wind industry
- Welcomed by the HSE
- Comparable to initiatives in oil & gas, rail and aviation industries



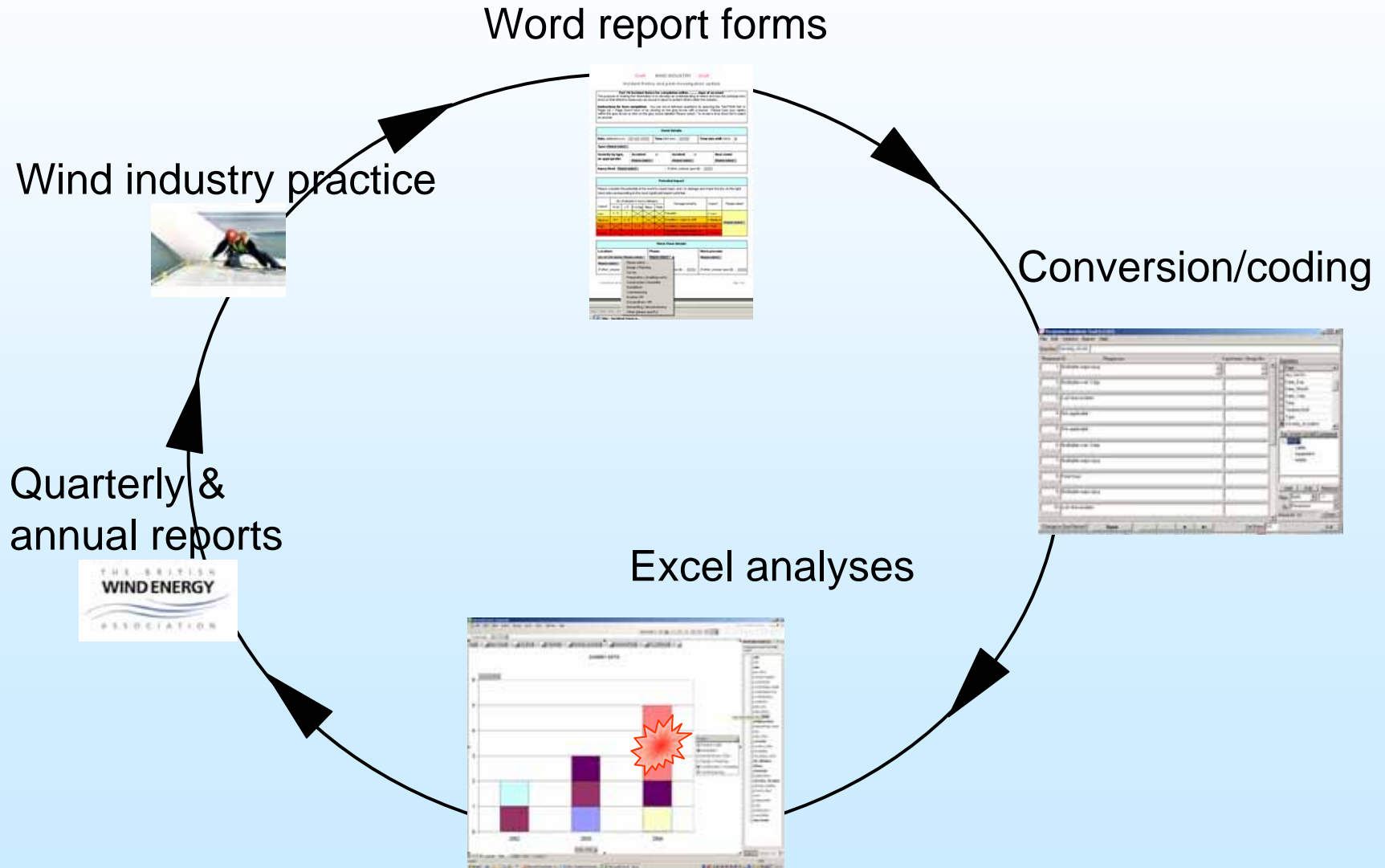


## THE APPROACH

- **“User-friendly” software developed by BOMEL**
- **Targeting to look behind details of incidents and near events**
- **Exploring the underlying causes of accidents:**
  - **Competence**
  - **Fatigue**
- **Information exchange all electronic**



# CYCLE OF IMPROVEMENT





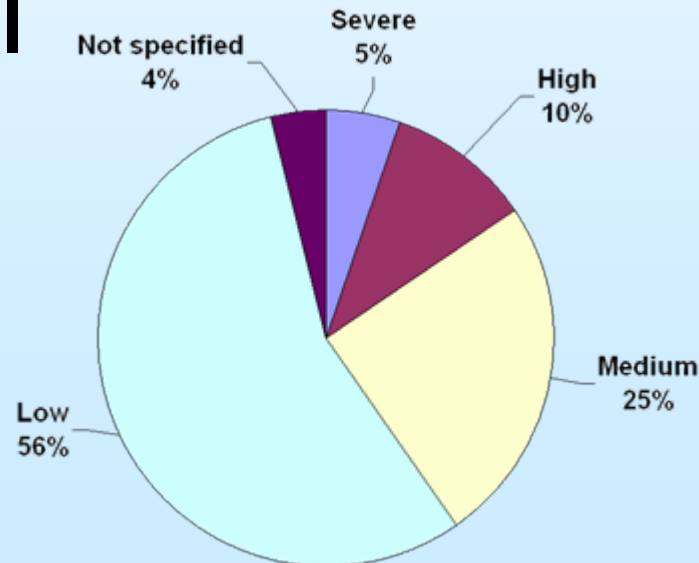
## IMPORTANT PRINCIPLES

- **Confidentiality**
- **All information is treated as confidential and is non attributable**
- **First stage is to sign a standardised Confidentiality Agreement**



## INPUTS

- **Standard input form includes information on incident details, competence of persons, time on shift**
- **Trying to establish behavioural patterns**
- **Impact potential**
  - **Low**
  - **Medium**
  - **High**



# BWEA Health & Safety Group

## Tab through entries

## Competence link with training group

Draft WIND INDUSTRY Draft  
Incident Notice and post-investigation update

**Part 1A Incident Notice for completion within ..... days of an event**  
The purpose of sharing this information is to develop an understanding of where and how the principal risks arise so that effective measures can be put in place to protect others within the industry.

**Instructions for form completion:** You can move between questions by pressing the 'Tab'/'Shift-Tab' or 'Page Up' / 'Page Down' keys or by clicking on the grey boxes with a mouse. Please type your replies within the grey boxes or click on the grey boxes labelled 'Please select...' to reveal a drop down list to select an answer.

**Event Details**

Date (dd/mm/yyyy)  /  /  Time (HH:mm)  Time into shift (hrs):

Type:

Severity by type, as appropriate: Accident or  Incident or  Near-event

Injury Kind:  if other, please specify ...

**Potential Impact**

Please consider the potential of the event to cause injury and / or damage and check the box on the right hand side corresponding to the most significant impact potential.

| Impact | No of people in injury category |                          |                          |                          |                          | Damage severity   | Impact    | Please select            |
|--------|---------------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---|-----------|--------------------------|
|        | First                           | LTI                      | 0-3-Day                  | Major                    | Fatal                    |   |           |                          |
| Low    | 1-3                             | 1                        | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Tolerable   | -> Low    | <input type="checkbox"/> |
| Medium | 4+                              | 2-9                      | 1                        | <input type="checkbox"/> | <input type="checkbox"/> | Downtime - repair in shift                                    | -> Medium | <input type="text"/>     |
| High   | <input type="checkbox"/>        | 10+                      | 2-9                      | 1                        | <input type="checkbox"/> | Downtime - repair/replace on site                             | -> High   | <input type="checkbox"/> |
| Severe | <input type="checkbox"/>        | <input type="checkbox"/> | 10+                      | 2+                       | 1                        | Irreparable without demob. or major delay or public awareness | -> Severe | <input type="checkbox"/> |

**Work Place Details**

Location: On- or Off-shore, Please select...  Please select...  if other, please specify ...

Phase:  Please select...

Work process: Please select...  if other, please specify ...

- Please select...
- Design / Planning
- Survey
- Preparation / enabling works
- Construction / Assembly
- Installation
- Commissioning
- Routine OM
- Extraordinary OM
- Dismantling / decommissioning
- Other (please specify)

Draft WIND INDUSTRY  
Incident Notice and post-investigation update

**Worker / Injured Party Details**

Employer role: Please select...  if other, please specify ...

Occupation: Please select...  Please specify, as appropriate ...

Age (years):

Competences:  Qualifications: Please select...  Please specify, as appropriate ...  Experience of similar role (years, approx):

Please provide a description of people involved etc

## Recognition of impact potential

**Reporting contact (optional)**

Contact details will not be openly available. Provision of contact details by the person supplying information will however help the database administrators in obtaining clarification and ensuring coding details etc are correctly interpreted.

Name (Given then Family names):

Position:

Company:

Email:

Tel:

## Drop down pick lists



## OUTPUTS

- **Standard Reports issued to Participating Companies on a quarterly basis. These thus remain confidential to these companies.**
- **Safety Alerts issued as and when required and are available in the members' area on the BWEA website.**
- **An annual report to be issued at the end of each year covering high level safety information within the industry. The conclusions are likely to be put in the public domain via the BWEA website.**



## PARTICIPATING COMPANIES

- **Airtricity**
- **B9 Energy**
- **EDF Energy**
- **E.on**
- **Natural Power**
- **Npower Renewables**
- **Scottish Power**

**.... together  
representing more  
than 50% of UK  
operating wind  
assets ....**

**and data covering  
development and  
construction phases**



## INTERESTED COMPANIES

- Centrica
- GE Energy
- Nordex
- RES
- Scottish & Southern Electric
- Wind Electric
- Your Energy

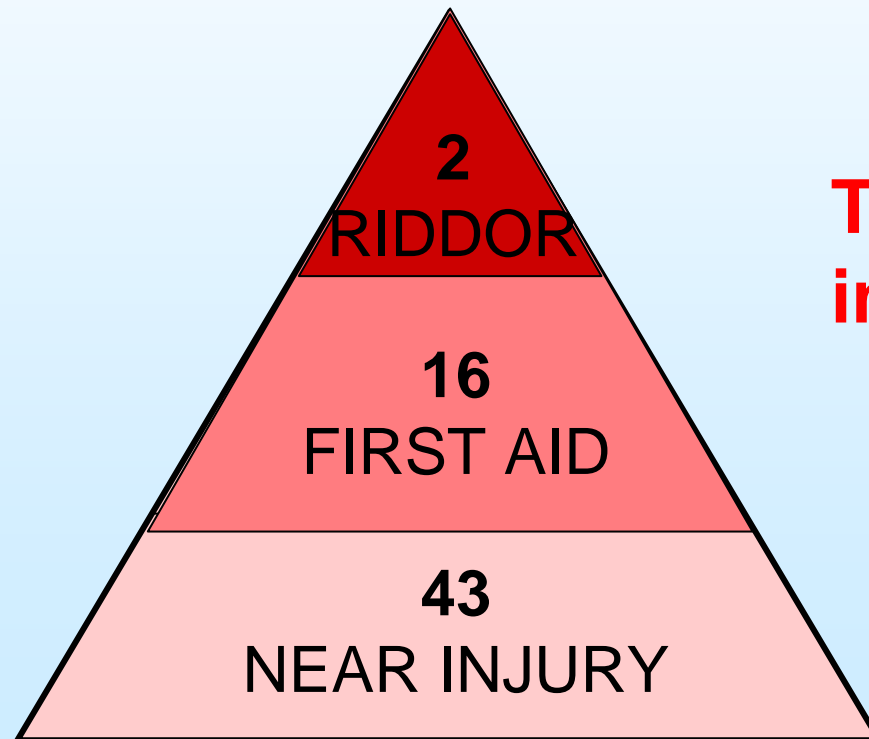
Can you add your  
name to this list??

[www.bwea.com/safety/lessons.html](http://www.bwea.com/safety/lessons.html)



## WHAT HAVE WE LEARNED TO DATE?

- **Disposition of notifications**

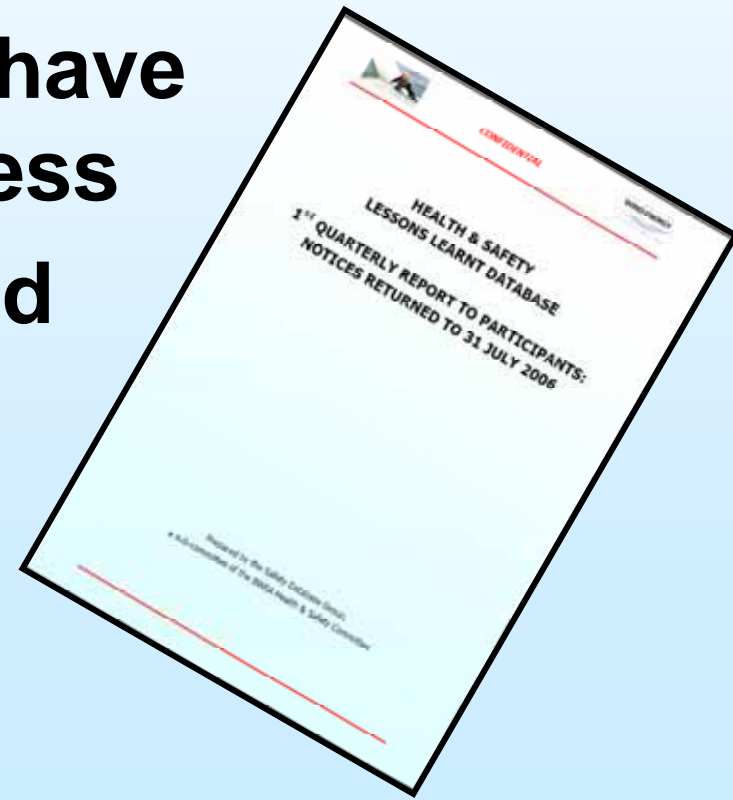


**Typical of other industries**



## OBSERVATIONS

- Fairly high number of slips and trips with medium to low consequence
- All accidents/incidents have a cost to the work process
- First report well received





## NEAR EVENTS

- **Fairly significant issues found:**
  - Driving from site and to and from site
  - Icy conditions with ice falls from blades
  - Weather – cold, hot and lightning
- **Data steadily coming in, enabling specific conclusions to be drawn and actions recommended over coming months and years**



## SAFETY ALERTS

- **Five have been recorded since November 2004**
  - Suitability of lifting equipment at sea
  - Control of machine overspeeding
  - Security of nacelle hatch covers
  - Need for regular blade inspections
  - Working with lifting equipment





## CONCLUSIONS SO FAR

- **The BWEA lessons learnt Database is up and running. More data needs to be submitted to enable specific analysis and risks to be identified**
- **A good response from participating companies**
- **More UK companies welcome to join**
- **We are being watched with interest by wind colleagues in Europe who have requested details**



## FOR MORE INFORMATION:

- **See Rod, Helen or Lisa following this session**

**OR**

**[www.bwea.com/safety/lessons.html](http://www.bwea.com/safety/lessons.html)**

# BWEA Health & Safety Group



BWEA - Health & Safety - Microsoft Internet Explorer

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Address http://www.bwea.com/safety/

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**BWEA - Championing the UK wind and marine renewables industries**

**Health & Safety**

This area of the website was launched during the spring of 2005 to provide a valuable resource for the wind energy industry. It is being steadily developed by the BWEA Health & Safety Steering Group.

Recent and current initiatives from the group include:

- Updated BWEA Guidelines for Health and Safety in the wind industry published on this website since in February 2005 are available to download in pdf format following an extensive review of the April 2002 edition, and incorporate lessons learned from early experience in the UK offshore wind industry. BWEA welcomes feedback on the Guidelines. If you have queries or comments please forward them in the first instance to [richard@bwea.com](mailto:richard@bwea.com)
- A Training Accreditation Scheme for Offshore Winds Farms operated with support from an appointed Training Course Administrator
- A set of Wind Turbine Safety Rules to apply to the operation of turbine electrical systems
- The establishment of a Lessons Learned Database of H&S Incidents and "Near Events" to promote better understanding of the H&S risks in the industry

A significant milestone in 2005 was the first BWEA Safety First seminar held in the Midlands in March; material presented on the various H&S initiatives at that seminar will be uploaded to this website.

The initiatives were endorsed by the 90 or so delegates at the seminar and separately by the BWEA Board. They are currently being taken forward and progress will be reported at the various BWEA events and conferences and on this website.

If you have any thoughts on further content of this web site area please send your ideas to [richard@bwea.com](mailto:richard@bwea.com) who will forward them to the appropriate industry group for consideration.

On behalf of the BWEA I hope you will have benefited from visiting this new area of the web site which is being developed to inform on Health and Safety topics that are vital to the sustained growth and success of our industry.

**Health & Safety**

**Safety Alerts (MEMBERS ONLY)**

**Download the updated Health and Safety Guidelines (PDF format - 1.8MB)**

**BWEA Safety First Seminar**

**Training Accreditation Scheme**

**Wind Turbine Safety Rules**

**Lessons Learnt Database**

**www.bwea.com/safety/**

**Intro**

**Safety Alerts**

**H&S Guidelines**  
-Update in hand  
-New CDM

**Safety Seminars**

**Training Accreditation Scheme**

**Wind Turbine Safety Rules**

**Lessons Learnt Database**