



**G9 Offshore Wind Health and Safety Association**

*Working at Height*

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**Why working at height?**




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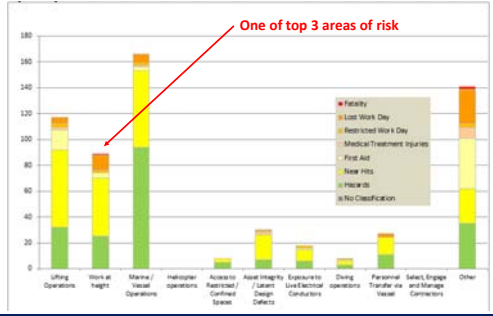
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**Incident data: Jan 2011 – Jul 2012**

One of top 3 areas of risk

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**Incident data: Jan 2011 – Jul 2012**



Working at height – Jan 2011 – July 2012 – incident data breakdown	
Classification	Total
Fatality	1
First Aid	4
Hazards	25
Lost Work Day	12
Medical Treatment Injuries	0
Near Hits	45
Restricted Work Day	2
<b>Total</b>	<b>89</b>

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**Some details from incidents**



- Wire snapped on yo-yo fall arrest block
- Personnel standing on top of Transition Piece with no collective edge protection or means of fall arrest
- Whilst working on the vessel in port the IP left a hatch open and then proceeded to clean windows on the vessel. As he moved back along the deck his right leg fell down the open hatch (approximately 0.5m).
- Working at height on plough - single hook used on harness with no shock absorber

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**Some details from incidents**



- An operative was transferring from a Cherrypicker basket to the external platform on an upended (vertical) TP using the double lanyard technique when his foot got caught in one of the lanyards as he was climbing over the handrail and he fell on to the floor of the external platform.
- Operative wearing harness climbed ladder without attaching to fall arrest system
- Contractors employee fell down three metres off top ladder in WTG, but fortunately sustained no injury.
- Operative wearing harness climbed ladder without attaching to fall arrest system fitted - height of 3 meters.

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**Based on the incident data, the G9 decided to develop guidance in this area**

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**Working at Height** 

David Malcolm  
Senior Mechanical Engineer, SgurrEnergy  
David Thomas  
Technical Director, heightec

centrica energy DDNG e-on RWE SSE Statkraft Skarhall VATTENFALL

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**Project Team** 

**heightec**  **sgurr energy**  
*heightec and SgurrEnergy working in partnership*

- heightec
  - Acknowledged expertise in work at height (WAH)
  - Practical experience, training, standards and products
- SgurrEnergy
  - Wide experience of offshore wind industry
  - Clear understanding of the H&S challenges

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**Progress Update** 

- Completed:
  - Literature review
    - Standards, G9 member documents, regulatory requirements
  - G9 incident database study
  - Consultation workshop
    - Backed up by surveys to identify greatest areas of concern
      - Workshop participants
      - heightec course attendees

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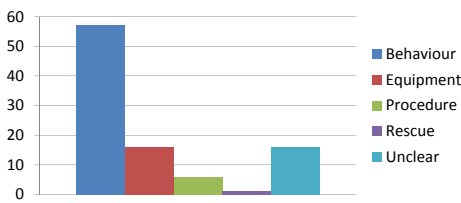
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**G9 Incident Data Study** 

- 95 Incidents from January 2011 – June 2012

**Immediate Cause**



Immediate Cause	Count
Behaviour	58
Equipment	18
Procedure	8
Rescue	2
Unclear	17

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**Outcome from Surveys** 

Topic Group	G9 Rank	heightec Rank
Design	1	2
Dropped object	2	6
Vessel transfer	3	3
Procedure	4	1
Behaviour	5	9
PPE	6	8
Maintenance	7	11
Organisation	8	10
Training	9	7
Rescue	10	5
Other		4

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- Deliverables** 
- Lifecycle Phase Checklists
  - Topic Guidance
  - Flowchart / Checklist for Preparation and Review of Procedures
  - Appendices
  - *Key requirements:*
    - Practical, clear, unambiguous documents
    - Consider needs of end user
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- Lifecycle Phase Checklists** 
- Design, Construction, Commissioning and O&M
    - Prompts to enable consideration of
      - Reducing the need for WAH
      - Ways of enabling safe WAH
    - “Zoned” approach
      - Depends on location on structure / WTG
        - E.g. access from vessel / inside tower / in nacelle
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**Topic Guidance** 

- Common issues
  - Competence, training, PPE
- Dropped objects
- Transfer from vessel to 1<sup>st</sup> working platform
- Access to working locations
- Rescue to vessel or helihoist platform
- Behaviour
  - Client, contractor and individual responsibilities

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**Flowchart / Checklist for Procedures** 

- Aiming to assist in preparing clear and accurate procedures
- Considerations
  - Who prepares procedures?
  - Format?
  - Usability



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**Appendices** 

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- **Topics:**
  - Review of EU WAH directive and member state regulations
  - Review of existing industry WAH guidance
  - Guidance on equipment / technical standards
  - Review of fitness standards
- **Aim:**
  - Assist user
  - Address common queries / areas of confusion

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**Forward Plan** 

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Stage	Date
1 <sup>st</sup> Draft to G9 working group	End October 2013
Comments resolution	December 2013
2 <sup>nd</sup> Draft for open consultation	January 2014
Comments resolution	February 2014
Final version	End February 2014

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**Any Questions or Comments?** 

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Thank you for your time

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