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REPORT OF THE  
INVESTIGATION INTO THE  
CAPSIZING OF THE  
“*NA BUACHAILLÍ*”  
ON  
18th FEBRUARY 2011.

REPORT No. MCIB/198  
(No.6 of 2012)



Report MCIB/198 published by The Marine Casualty Investigation Board  
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## 1. SYNOPSIS

- 1.1 On 18th February 2011 whilst fishing for mussels close to the shore in Waterford Estuary approximately 0.5 nautical miles (NM) North of Duncannon, the MFV “*Na Buachailli*” capsized and sank. The Skipper, Mr. Richard McNamara survived the incident but his crewman, Mr. John Ennis, was lost. His body was recovered from the water on 21st March 2011.

## 2. FACTUAL INFORMATION

### 2.1 Vessel Details:

Name:	<i>“Na Buachailli”</i>
Type of vessel:	Motor Fishing Vessel. Wooden Construction - Decked - Forward Wheelhouse.
Port of Registry/Reg No:	Wexford/WD 217.
Make:	Built 1976 at Carrolls Boat Yard Ballyhack.
Dimensions:	LOA 9.32 mtrs. Beam 3.04 mtrs. Depth 1 mtr.
Engine/Make/Capacity:	Caterpillar/31 kw.
Navigational & Safety Equipment:	In compliance with the Department of Transport, Tourism and Sport’s Code of Practice (COP) for small fishing vessels under 15 mtrs. Overall length.



Photograph 1



Photograph 2.

Photographs 1 and 2 taken by the MCIB on 25th February 2011 where the vessel was being stored after it had been raised, pumped-out and brought ashore after the sinking.

- 2.2 Mr. McNamara, an experienced fisherman, purchased the vessel in 2005 and registered it under its current name. He used the vessel to fish for species such as sprats, salmon, cockles, mussels, and clams. At the time that Mr. McNamara purchased the vessel, he replaced the stern fishing gantry with a new custom made structure that included an “A” frame. Fig 1 below is a sketch of how the vessel was rigged for mussel dredging. In the sketch the mussel dredge is partially submerged and being towed by the vessel. The “A” frame was attached to the gantry and supported by a steel wire rope attached to the mast. A sheave block mounted at the apex of the “A” frame accommodated the hoist wire that was attached to the dredge and back to the hoist winch.
- 2.3 The vessel was surveyed under the COP in 2005 and again in 2009 and was found to be in compliance. At the time of the last survey in 2009 the surveyor questioned the Breadth to Depth ratio of the vessel. The dimensions give a ratio

of 2.73, while the Stability Check for Survey of vessels under 15-mtrs calls for a ratio between 1.75 and 2.15. Having discussed this with Mr. McNamara the surveyor was satisfied by the fact that this had been the situation since the vessel was built in 1976 and no stability problems had been encountered in service.

- 2.4 Mr. McNamara recounted that the floating equilibrium of the vessel was slightly to Starboard. This suited the operation of the vessel as the net hauler was located on the Port side and the increased lift on the port side was of assistance when operating the net hauler.
- 2.5 After the vessel was surveyed in 2009, Mr. McNamara occasionally fitted a mussel washer/sorter unit on the port side deck, forward of the gantry, when dredging for shell fish. This item was in use on the vessel at the time of the incident and can be seen in Photographs 1 and 2. The mussel washer/sorter was mounted on the Port side of the vessel and Mr. McNamara estimates that it weighed approximately 250-kgs but that this weight on the vessel was off-set by the fact that the fishing net had been removed and was not on-board at the time of the incident.

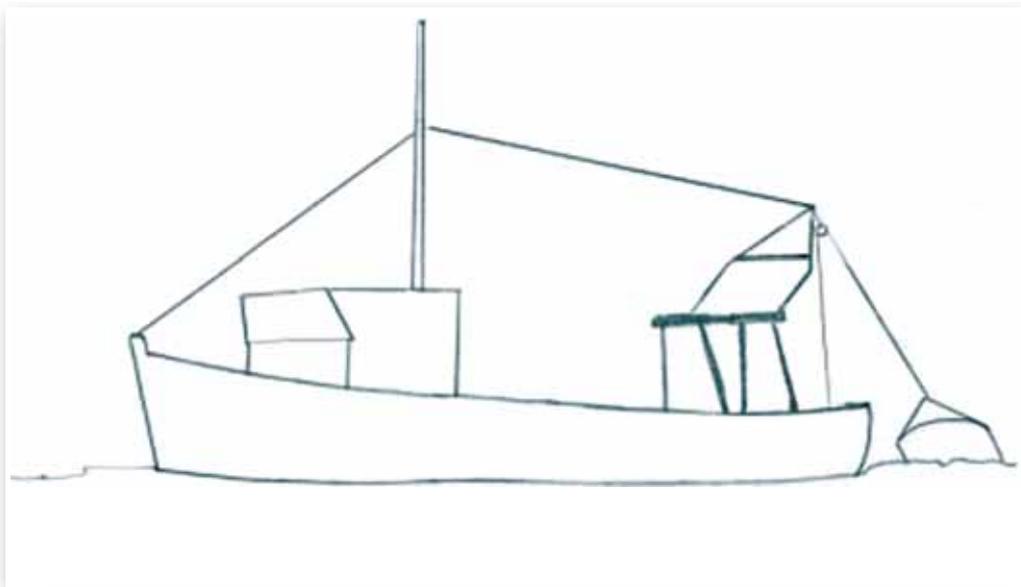


Fig 1

- 2.6 The weather in the area on the 18th February 2011, between 6-12 hrs., was as follows:

Winds: Force 3 to 5 from the south-east direction.

Weather: Rather cloudy but dry at first, outbreaks of rain and drizzle, some heavy.

Visibility: Moderate, occasionally poor.

## EVENTS PRIOR TO THE INCIDENT

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### 3. EVENTS PRIOR TO THE INCIDENT

- 3.1 Mr. McNamara and Mr. Ennis set out to fish for mussels at about 07.15 hrs on 18th February 2011. The mussel beds located off Duncannon/Arthurstown Co. Wexford on the Northern shore of the estuary was the area of operation.
- 3.2 The mode of fishing employed was to lower the dredge and steam up-river close-in to the shore against the tide. The vessel was then brought to Port, stopped and the dredge was hauled up astern using the winch. The bottom of the dredge was connected to the net drum by a line and then up-ended to allow the catch to spill out of the dredge onto the deck at the stern. The vessel then drifted down stream while the catch was washed, sorted and bagged. The dredge would then be re-deployed and the process repeated. The intention was to continue fishing until 80 x 25-KG bags of mussels had been harvested.
- 3.3 The fishing progressed well and other than a recurrent minor problem with the winch control, whereby the winch would occasionally allow the dredge to drop suddenly when it was being hoisted, the trip was uneventful.
- 3.4 58 of the anticipated 80 bags of mussels had been harvested and stored on deck. The bags were stacked on the Port and Starboard sides of the deck allowing for a central clear walkway between the wheel house and the stern area.

## 4. THE INCIDENT

- 4.1 At about 11.30 hrs. Mr. McNamara noted that a merchant ship and the Waterford pilot boat were coming down river. The dredge was due to be hoisted. He proceeded to bring the vessel to Port and stopped. The dredge was hoisted by means of the winch and Mr. Ennis was in the process of attaching the line to the bottom of the dredge. Mr. Ennis was encountering difficulty in making the attachment and Mr. McNamara left the winch control at the rear of the wheelhouse and went aft to the stern to assist Mr. Ennis. The attachment was made and as Mr. McNamara was making his way forward to operate the winch controls, he noted that the vessel was listing to Starboard and Mr. Ennis shouted to him to “watch it now”. Mr. McNamara looked astern and saw Mr. Ennis bracing himself against the list of the vessel, holding onto the gantry and he also saw that the suspended dredge was swinging out to Starboard. Mr. McNamara tried, without success, to get to the winch controls to drop the dredge. The vessel continued its rapid list to starboard, it was inundated and sank.
- 4.2 The last sighting of Mr. Ennis by Mr. McNamara was of him holding onto the gantry.
- 4.3 When Mr. McNamara tried to get to the winch controls and failed he then tried to enter the wheelhouse to activate the EPIRB (Emergency Position Indicating Radio Beacon) but the rapidity of the list to starboard was such that the violent rush of seawater into the vessel forced Mr. McNamara into the wheelhouse, down the starboard side of the engine and into the area forward of the engine under the forward deck, trapping him there. A quirk of fate then reversed the flow of water and Mr. McNamara was pushed back up and was ejected out the wheelhouse doorway. He managed to get to one of the life rings that had been mounted on the wheelhouse roof and make it ashore to raise the alarm.
- 4.4 The position was  $52^{\circ} 11' N$   $006^{\circ} 56' W$  approximately 0.5 NM North of Duncannon. Please see (Fig. 2). This is a sketch of the estuary showing the approximate position of the vessel and the tidal/wind directions.

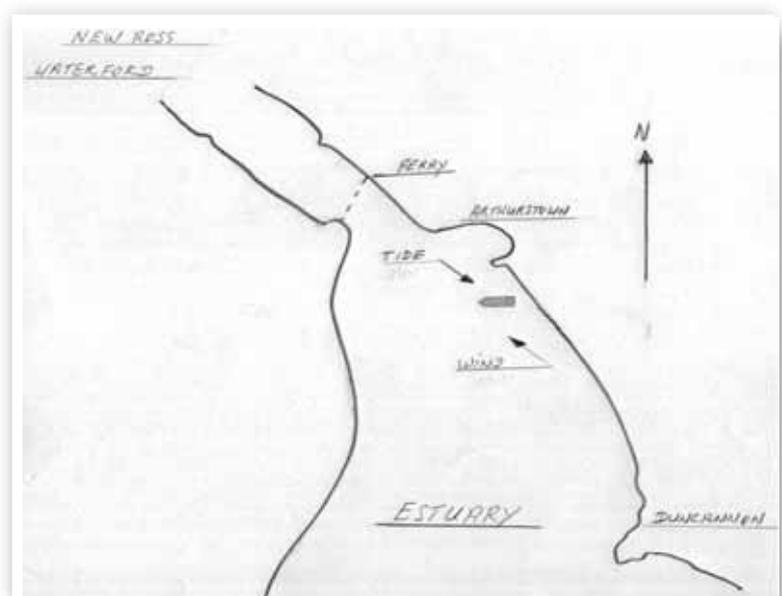


Fig 2

### 5. EVENTS FOLLOWING THE INCIDENT

- 5.1 Mr. McNamara raised the alarm and the emergency services were mobilised immediately.
- 5.2 Rescue helicopter R117, Lifeboats and the Coast Guard Units stationed at Fethard and Dunmore East were tasked to commence a search of the estuary along with the Waterford port pilot boat and local fishing vessels.
- 5.3 Naval divers were also called upon to survey the seabed and to search within the sunken vessel.
- 5.4 Following extensive searches, the body of Mr. Ennis was recovered from the water on 21st March 2011.
- 5.5 The sunken vessel was located. Naval divers attached wire cables to a number of points on the vessel. It was raised sufficiently to allow it to be towed to shore. It was then pumped free of seawater, loaded onto a low-loader and transported on to dry land. The hull was found to be intact and had not been breached. During the salvage operation, the mast, the “A” frame attached to the gantry that supported the dredge hoist wire rope and the dredge itself were removed and the steel wire rope that attached the dredge to the winch was also cut away.
- 5.6 The Naval divers did not see any evidence that the dredge or any part of the vessel had been snagged by a submerged hazard such as a wire rope that caused it to capsize and sink.

## 6. CONCLUSIONS

- 6.1 The vessel had the requisite safety equipment on board but both Mr. McNamara and Mr. Ennis were not wearing life jackets at the time of the incident.
- 6.2 The EPIRB was located in the wheelhouse in a designated holding bracket. Mr. McNamara did not have time to reach it and activate it before he was swept into the wheelhouse.
- 6.3 The hull of the vessel was not breached and it did not suffer any sort of mechanical failure.
- 6.4 It would appear, based on the evidence, that the reason for the capsize was a combination of the following:
  - The vessel had been turned to port out into the channel for the hoisting of the dredge and in order to best ride over the wake of the merchant vessel as the latter proceeded down the estuary.
  - The tide was ebbing so that there was a downstream tidal flow. The wind was from a South Easterly direction, that is, up the estuary, so that the tide and the wind were opposite to each other across the hull of the vessel and possibly creating a clockwise turning moment on the hull.
  - Mr. McNamara estimates that the fuel tanks were about 1/3 full, approximately 80-Kgs of fuel in each tank. The two tanks are interconnected. As the vessel listed to starboard the fuel would flow from the port tank and into the starboard tank increasing the list to starboard. There would also be a free surface effect in the fuel tanks adding to the instability of the vessel.
  - The water pump for the mussel wash/sorter was operating. Normally the water was directed over the port side. As the vessel listed to starboard the water may have come onto the deck, flowing to the starboard side and increasing the list to starboard. This may have been exacerbated by a plastic mesh that had been fitted to the starboard side freeing ports to prevent mussels passing through the freeing ports and over the starboard side of the vessel, although Mr. McNamara's recollection is that the deck was relatively free of water at the time of the incident so that this may not have been the case.
  - The accumulated catch, up to the time of the incident was 58-bags of mussels at 25-Kgs each, giving a total weight of 1,450-Kgs. The distribution of which is uncertain and may have been more-so to starboard as the mussel washer/sorter may have restricted the amount of bags that could be stacked on the port side.

- Mr. McNamara estimates that the dredge and the catch weighed approximately 250-Kgs. The dredge had been fully hoisted up in order to attach the line at the bottom of the dredge. Thus the apex of the dredge was 3-mtrs above the deck at the stern of the vessel. In the normal course, the bottom line would have been attached, the dredge up-ended and the catch landed on the deck. On this occasion there was a delay in the operation and the dredge was left suspended and swinging free above the deck. Mr. McNamara's recollection is that, when he looked astern at the dredge, it was not hanging vertically but rather that it was hanging to starboard tending to pull the vessel over to starboard.
- With a breadth to depth ratio of 2.73, the vessel would probably have been a beamy, "tender" vessel that would have had a low rate of rotational acceleration when righting itself and returning to neutrality.

## 7. RECOMMENDATIONS

- 7.1 That lifejackets (personal floatation devices) be worn at all times whilst on a vessel. Consideration should be given to the provision of crotch straps on all lifejackets.
- 7.2 That any physical alterations or change of use that might have an effect on the stability of a vessel are overseen and authorised by a competent properly qualified person in accordance with the Department of Transport, Tourism and Sport's Code of Practice for small fishing vessels under 15 mtrs.
- 7.3 That EPIRB instruments are mounted outside the wheelhouse and preferably be of the automatic float free type.
- 7.4 The Department of Transport, Tourism and Sport's Code of Practice for small fishing vessels less than 15m should be revised with particular reference to the sections dealing with EPIRBs, vessel stability and life rafts.

# LIST OF APPENDICES

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## 8. LIST OF APPENDICES

8.1 Met Éireann Weather Report.

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Appendix 8.1 Met Éireann Weather Report.



**MET ÉIREANN**  
*The Irish Meteorological Service*

Glasnevin Hill, Dublin 9, Ireland.	Cnoc Ghlas Naíon Baile Átha Cliath 9, Éire. www.met.ie	Tel: +353-1-806 4200 Fax: +353-1-806 4247 E-mail: met.eireann@met.ie
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25/2/2011

**Our Ref.** WS 3018/2C\_13999  
**Your Ref.** MCIB/198

**Estimate of weather conditions in the Waterford Harbour area, near Duncannon, on the 18<sup>th</sup> February 2011, between 6 hours and 18 hours.**

**6 – 12 hours**

Winds: Force 3 to 5 from a south to south-east direction

Weather: rather cloudy but dry at first, outbreaks of rain and drizzle arrived from the south-west during the morning.

Visibility: moderate, occasionally poor

**12 – 18 hours**

Winds: south to south-east Force 4 to 6

Weather: rather cloudy with spells of rain and drizzle, some heavy

Visibility: generally poor, 3km, and fog visibility at times in heavier drizzle, 500m

Waves off-shore would **not** be representative of this area but Buoy M5 data are attached for reference

**Evelyn Murphy B.Sc. M.Sc. Meteorologist**  
Research & Applications Division  
Met Éireann



Appendix 8.1 Met Éireann Weather Report.



**MET ÉIREANN**  
*The Irish Meteorological Service*

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 Dublin 9, Ireland. Baile Átha Cliath 9, Éire. Fax: +353-1-806 4247  
 www.met.ie E-mail: met.eireann@met.ie

**M5 Observations; Latitude 51.7°N, Longitude 6.7°W**

date	lat	lon	Wind Direction (° from North)	Wind Speed (knots)	Highest Gust (knots)	Sea temperature (°C)	Wave Period (seconds)	Wave Height (metres)
18-feb-2011 06:00:00	51.7	6.7	160	13	16	8.2	6	1.9
18-feb-2011 07:00:00	51.7	6.7	160	16	20	8.2	6	1.9
18-feb-2011 08:00:00	51.7	6.7	150	16	20	8.2	6	1.9
18-feb-2011 09:00:00	51.7	6.7	150	16	20	8.3	5	1.9
18-feb-2011 10:00:00	51.7	6.7	150	16	21	8.2	5	1.9
18-feb-2011 11:00:00	51.7	6.7	150	16	21	8.3	5	1.7
18-feb-2011 12:00:00	51.7	6.7	150	17	21	8.3	5	1.7
18-feb-2011 13:00:00	51.7	6.7	150	19	24	8.2	5	1.8
18-feb-2011 14:00:00	51.7	6.7	140	20	26	8.2	5	1.9
18-feb-2011 15:00:00	51.7	6.7	140	23	29	8.2	5	2.1
18-feb-2011 16:00:00	51.7	6.7	140	23	31	8.2	5	2.3
18-feb-2011 17:00:00	51.7	6.7	150	24	30	8.2	5	2.6
18-feb-2011 18:00:00	51.7	6.7	150	22	33	8.2	5	2.6



Appendix 8.1 Met Éireann Weather Report.

Appendix

Beaufort Scale of Wind					
Force	Description	Speed*		Specification	Wave height**
		knots	km/hr	-sea	(metres)
0	Calm	<1	<1	Sea like mirror	
1	Light air	1-3	1-5	Ripples	0.1 (0.1)
2	Light breeze	4-6	6-11	Small wavelets	0.2 (0.3)
3	Gentle breeze	7-10	12-19	Large wavelets, crests begin to break	0.6 (1)
4	Moderate breeze	11-16	20-28	Small waves becoming longer, frequent white horses	1 (1.5)
5	Fresh breeze	17-21	29-38	Moderate waves, many white horses, chance of spray	2 (2.5)
6	Strong breeze	22-27	39-49	Large waves, white foam crests, probably some spray	3 (4)
7	Near gale	28-33	50-61	Sea heaves up, streaks of white foam	4 (5.5)
8	Gale	34-40	62-74	Moderately high waves of greater length	5.5 (7.5)
9	Strong gale	41-47	75-88	High waves, dense streaks of foam, spray may reduce visibility	7 (10)
10	Storm	48-55	89-102	Very high waves, long overhanging crests, visibility affected	9 (12.5)
11	Violent storm	56-63	103-117	Exceptionally high waves, long white foam patches cover sea	11.5 (16)
12	Hurricane	64+	117 & over	Air filled with foam and spray, sea completely white	14 (-)

\*Speed = mean speed at a standard height of 10 metres.  
 \*\*Wave height is only intended as a guide to what may be expected in the open sea.  
 Bracketed figures indicate the probable maximum wave height.

Wave Heights / State of Sea

The wave height is the vertical distance between the crest and the preceding or following trough. The table below gives a description of the wave system associated with a range of significant wave heights.

Sea State (Descriptive)	Significant Wave height in meters
Calm	0 – 0.1
Smooth(Wavelets)	0.1 – 0.5
Slight	0.5 – 1.25
Moderate	1.25 – 2.5
Rough	2.5 – 4
Very rough	4 – 6
High	6 – 9
Very high	9 – 14
Phenomenal	Over 14

Individual waves in the wave train will have heights in excess of the significant height. The highest wave of all will have a height about twice the significant height.

Visibility

Descriptions of visibility mean the following:

Visibility (Descriptive)	Visibility in nautical miles (kilometres)
Good	More than 5 nm (> 9 km)
Moderate	2 – 5 nm (4 – 9 km)
Poor	0.5 – 2 nm (1 – 4 km)
Fog	Less than 0.5 nm (< 1km)

Appendix 8.1 Met Éireann Weather Report.



## 9. CORRESPONDENCE RECEIVED

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**Note:** The address and contact details of the individual respondent have been obscured for privacy reasons.

12<sup>th</sup> January 2012

Ms. Eve Reddin,  
Secretariat,  
Marine Casualty Investigation Board,  
Leeson Lane,  
Dublin 2.

INVESTIGATION INTO THE CAPSIZING OF THE "NA BUACHAILLI" ON THE 18<sup>th</sup> FEBRUARY 2011.

Dear Ms Reddin,

I, Richard McNamara owner and skipper of "Na Buachailli" on the 18<sup>th</sup> February 2011 wish to advise that the draft report in relation to the above accident has been reviewed and I have no observations to make in respect of same.

However, I would like the following to be submitted in you final report:

I would like to offer my sincere condolences to the family and friends of my work colleague of 25 years Mr. John Ennis R.I.P.

I would also like to express my upmost thanks to all the rescue services and the hundreds of volunteers involved in the round the clock search and recovery of Mr. John Ennis,(R.I.P) to each and every one of you all I will be eternally grateful.

Yours Sincerely

*Richard McNamara*

Richard McNamara



## MCIB RESPONSE

The Board notes the contents of this correspondence.

An Ceannfort,  
An Garda Síochána,  
Ros Mhic Thriúin,  
Contae Loch Garman

Tel/Teileafon: 051 426030  
Fax/Facs: 051 426034  
Please quote the following ref. Number:



Superintendent,  
An Garda Síochána,  
New Ross,  
Co. Wexford.

Web Site:

E-mail:

Date : 18.01.2012

MCIB/12/198

Ms. Eve Reddin,  
Secretariat,  
Marine Casualty Investigation Board,  
Leeson Lane,  
Dublin 2.

Re: DRAFT Report of the Investigation into the capsizing of the 'Na Buachailli' on 18<sup>th</sup> February, 2011.

Dear Ms. Reddin,

I acknowledge receipt of your recent correspondence of 6<sup>th</sup> January, 2012 in this regard.

We do not have any comment or observations to make on the Draft Report

Yours Sincerely,

  
(Michael Walsh)  
Inspector.



## MCIB RESPONSE

The Board notes the contents of this correspondence.



ACHIEVING A HEALTHY AND SAFE WORKING LIFE - TOGETHER

5th Floor, Government Buildings, The Glen, Waterford  
Telephone: 1890 289 389 Fax: 051 870610 Website: <http://www.hsa.ie>

Mr. John O'Donnell  
Chairman  
Marine Casualty Investigation Board  
Leeson Lane  
Dublin 2

Your Ref: MCIB/12/198

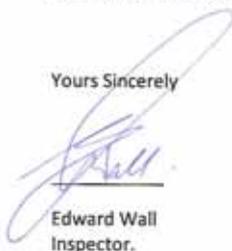
Re: Capsizing of the "Na Buachaillí" on 18<sup>th</sup> February 2011.

Dear Mr. O'Donnell

I refer to your letter of January 6<sup>th</sup> and the enclosed Draft report of the investigation into the capsizing of the "Na Buachaillí" on 18<sup>th</sup> February 2011.

I would like to thank you for the copy of the Draft report and confirm that I on behalf of the Authority have no comment or observations to make on the report.

Yours Sincerely

  
Edward Wall  
Inspector.

EXCELLENCE  
THROUGH  
PEOPLE

HEALTH AND SAFETY AUTHORITY  
AN tÚDARÁS SLÁINTE AGUS SÁBHÁILTEACHTA



## MCIB RESPONSE

The Board notes the contents of this correspondence.



Your ref: MCIB/12/198

6 January 2012

Ms Eve Reddin  
Secretariat  
Marine Casualty Investigation Board  
Leeson Lane  
Dublin 2

**Draft Report of the Investigation into the capsizing of the 'Na Buachaillí' on 18<sup>th</sup>  
February 2011**

Dear Ms Reddin,

The draft report in relation to this incident has been reviewed and the Coast Guard supports the recommendations made, in particular no. 7.3.

Yours sincerely,

  
PP- Chris Reynolds  
Director.



Administration Office, Irish Coast Guard, Department of Transport, Leeson Lane, Dublin 2, Ireland.  
Oifig Riaracháin, Garda Cóstá na hÉireann, An Roinn Iompair, Lána Chill Mochargán, Baile Átha Cliath 2, Éire.  
Tel: + 353 1 6783455 / 3427, Fax: + 353 1 6783459, email: admin@irishcoastguard.ie

## MCIB RESPONSE

The Board notes the contents of this correspondence.

