



# **BARGE SALVAGE – PORTREE- RESCUE PARTY METHOD STATEMENT**

BMC Ref: DV0240-4008

09.08.2022

Prepared by:

Briggs Marine Contractors Ltd.

Seaforth House

Seaforth Place

Burntisland

KY3 9AX

Tel: +44 (0)1592 872939

[www.briggsmarine.com](http://www.briggsmarine.com)

**CONTENTS**

1. INTRODUCTION ..... 4

    1.1. Background..... 4

    1.2. Purpose and Scope ..... 4

2. Methods..... 6

    2.1. Task list..... 6

Rescue of Personnel on Quayside ..... 6

Rescue of Personnel from Fish Pens ..... 7

Rescue of Personnel from the deck of MV Forth Drummer ..... 9

Rescue of Personnel from Water ..... 11

3. BRIEFING RECORD ..... 12



### Amendment Register

Revision	Date	Issued by	Approved by	Amendments
1.0	09.08.2022			

### Supporting Documentation

<b>Document Ref</b>	<ul style="list-style-type: none"> <li>BMC Diving Operations Manual</li> <li>HSEMP Manual</li> <li>DV0240-4002 Barge Salvage – Portree ROV method statement</li> <li>DV0240-4003 Barge Salvage – Portree Diving ops method statement</li> <li>DV0240- 4006 Barge Salvage – Portree General FRC Operations Method statement</li> <li>DV0240-4007 Barge Salvage – Portree Oil, Gas and Feed Discharge and Removal method statement</li> </ul>
<b>Assessments</b>	<ul style="list-style-type: none"> <li>DV0240-3001 Barge Salvage – Portree General Diving RA</li> <li>DV0240-3010 Barge Salvage – Portree General ROV ops RA</li> <li>DV0240-3007 Barge Salvage – Portree Covid-19 RA</li> <li>DV0240-3015 Barge Salvage – Portree Hydraulic/vibration tools RA</li> <li>DV0240-3003 Barge Salvage – Portree Underwater welding/Burning RA</li> <li>DV0240-3002 Barge Salvage – Portree Lift bag use RA</li> <li>DV0240-3004 Barge salvage – General FRC operations RA</li> <li>DV0240-3020 Barge Salvage – Portree H<sub>2</sub>S RA</li> </ul>
<b>Permits</b>	<ul style="list-style-type: none"> <li>BMC permit to work</li> </ul>
<b>Lifting Plans</b>	<ul style="list-style-type: none"> <li>Forth Drummer Knuckle boom crane – planned lifts</li> </ul>
<b>Drawings</b>	<ul style="list-style-type: none"> <li>N/A</li> </ul>

### Abbreviations

Abbreviation	Definition
BMC	Briggs Marine Contractors Limited
CTV	Crew Transfer Vessel
CH <sub>4</sub>	Methane (gases)
DS	Dive supervisor
DSV	Dive Support Vessel
H <sub>2</sub> S	Hydrogen Sulfide (gases)
IBC	Intermediate Bulk Container

IP	Injured Party
MV FD	MV Forth Drummer
MV FJ	MV Forth Joustier
VTS	Vessel Traffic service
NOK	Next of Kin
PAX	Passengers
PLB	Personal Locator Beacon
POB	Persons on board
PM	Project Manager
PPE	Personal Protective Equipment
RTS	Rescue Team Supervisor
SMB	Surface Marker Buoy
SOLAS	Safety of Life at Sea

## 1. INTRODUCTION

### 1.1. Background

The Seamate 450 fish feed barge supplying pellet food to the salmon farm in Portree Harbour, Isle of Skye sank during Storm Arwen in Q4 2021 with approximately 400t of feed on board. Briggs Marine Contractors (BMC) responded to a request from Scottish Salmon Company (SSC) shortly thereafter to secure the feed silos, of which there are six, with temporary hatch covers to control and prevent the emission of feed oils that are part of the feed pellets from being emitted to the environment.

In May 2022 BMC was awarded the contract to recover the barge. An ROV survey was conducted in June 2022 to aid the preparation of the salvage plan. Preliminary diving work started on site July 2022 with the aim of preparing the barge for recovery August 2022. During these works it was noticed that gas bubbles were escaping from the temporary hatch covers and from previously unidentified cracks in the concrete wall of the accommodation block on the starboard stern. These gas bubbles had not been identified during the ROV survey or during the early preparatory works.

Hoses, pumps, and two IBCs were supplied to allow the relief of the unknown pressure within the silos as there was concern over the possibility of an uncontrolled release of the pent up gases and oils or structural harm to the barge as cracks were identified by the emission of the gases. During the relief of the gas and oils from the silos it became apparent that the gases were toxic in composition with Hydrogen Sulphide (H<sup>2</sup>S) and Methane (CH<sup>4</sup>) detected by the onsite Draeger X-am 2500 4 gas. At the mouth of the IBC where the oil was being collected on the deck of the Dive Support Vessel (DSV) MV Forth Drummer concentrations of H<sub>2</sub>S were detected at 154ppm and away from the IBC on the back deck of Forth Drummer in concentrations between 30 and 80 ppm.

### 1.2. Purpose and Scope

The purpose of this document is to detail the procedures to be followed by BRIGGS MARINE CONTRACTORS (BMC), to guide the recovery of injured parties by the rescue team on site. This document is provided primarily for use by the responsible persons noted below and as a reference document for BMC site rescue team supervisor, BMC Forth Drummer crew, Kishorn Port representatives and The Scottish Salmon Company representatives

## **1.2.Roles and Responsibilities**

The rescue operations supervisor has the authority to supervise the rescue team and operations in accordance with BMC procedures, legislation, ACOP and guidance.

- To ensure to the best of his ability that the expectations defined in the BMC procedures, legislation, ACOP are met.
- Responsible for safety of all personnel at the work site
- To confirm that all personnel have sufficient training and competence to carry out works
- To confirm all equipment is certified against industry standards
- To confirm that risk assessments relevant to work scopes have been completed
- Responsible for efficient operations of the project and to ensure all personnel employed to carry out works are competent to do so and work in accordance with BRIGGS rules
- Ensures that BRIGGS company responsibilities are fully met
- Reports to onshore Operations Manager.
- To work in accordance with the BRIGGS rules and SMS
- Ensure that equipment maintenance activities are carried out in accordance with industry standards.
- Must initiate Emergency Response if an incident/medical emergency takes place at site

The BMC Team have the duty to maintain general safety as directed by the client and BMC site Resue supervisor and detailed in the Operations Manual. Abnormal situations should be cascaded to relevant interested parties.

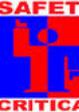
## 2. Methods

### 2.1. Task list

- Rescue of personnel on quayside
- Rescue of personnel from the pens
- Rescue of personnel from the deck of MV FD
- Rescue of personnel from the water

### Rescue of Personnel on Quayside

The following steps describe the procedure to perform a rescue of IP(s) safely and effectively during operations on the quayside in the event of a gas leak.

Method of Work		
Item	Task	Persons responsible
<b>NO SMOKING ALLOWED!</b>		
1	RTS Reviews risk assessments and emergency procedure	RST
2. 	BA sets tested, Personal gas monitors to be bump tested prior to shift start BA sets and gas monitors are to be left in a state of immediate readiness to respond if called upon.	All team
3. 	Rescue team's supervisor holds toolbox talk – ensuring that all personnel are aware of the plans, safe use of the escape set and familiarisation with the risks at hand	RST
4. 	Team to be standing by whilst operations are being performed, team must be near to site but far enough away to not be affected by any uncontrolled release of gases or increase in the gas levels that trigger the audible alarms. Team will be on standby, up wind of the job location!	RST
<b>Alarm sounds / incident occurs</b>		
5.	On hearing alarms or being called to assist with an IP the rescue team will immediately don their BA sets <b>Port Authority to be contacted via VHF and apprised of containment breach</b> <b>EMERGENCY SERVICES TO BE CONTACTED</b>	All
6. 	Team to check over each other ensuring kit is worn correctly	All
7.	Team assess dangers and moves into the hazard area and locates the IP, as appropriate	All

8.	Team will recover the IP, and remaining personnel will self-rescue, to a designated safe location, as appropriate	All
9.	<b>Team will use PID meter to ensure the PPM levels from the IP's clothing, and everyone else, are at a safe level prior to removing their or IP's BA set.</b>	RST
10.	If PID meter levels are <b>NOT</b> safe, RST to administer first-aid whilst keeping their and IP's BA sets on. If PID meter levels are safe, RST can dof the BA sets and administer first-aid as appropriate.	
11.	Handover to be performed with the emergency services as soon as possible and provide assistance, as required	Rescue ops supervisor RST
12.	All personnel stood down and checked over by first-aiders / RST / PID meter	All
 13.	Highest gas monitor readings to be obtained from all devices and recorded CH <sub>4</sub> = O <sub>2</sub> = C <sub>0</sub> = H <sub>2</sub> S =	All
14.	All personnel stood down for 24 hrs to assess and review lessons learned	All
15.	Maintain regular checks on each other for next 24hrs (buddy / buddy system)	All

### Rescue of Personnel from Fish Pens

The following steps describe the procedure to perform a rescue of IP(s) safely and effectively during operations from the fish pens in the event of a gas leak.

Method of Work		
Item	Task	Persons responsible
	<b>NO SMOKING ALLOWED!</b>	
1	RTS Reviews risk assessments and emergency procedure	RST
 2.	BA sets tested, Personal gas monitors to be bump tested prior to shift start	All team

	BA sets and gas monitors are to be left in a state of immediate readiness to respond if called upon.	
 3.	Rescue team's supervisor holds toolbox talk – ensuring that all personnel are aware of the plans, safe use of the escape set and familiarisation with the risks at hand	RST
 4.	Team to be standing by whilst operations are being performed. Team must be near to site but far enough away to not be affected by any uncontrolled release of gases or increase in the gas levels that trigger the audible alarms. Team will be on standby, up wind of the job location!	RST
<b>Alarm sounds / incident occurs</b>		
5.	On hearing alarms or being called to assist with an IP, the rescue team will immediately don their BA sets Skipper to sound alarms <b>Port Authority to be contacted via VHF and apprised of containment breach</b> <b>EMERGENCY SERVICES TO BE CONTACTED</b>	All
 6.	Team to check over each other ensuring kit is worn correctly	All
7.	Team boards the FRC and makes way towards IP(s).	RST
8.	Team assess dangers and moves into the hazard area and locates the IP, as appropriate	All
9.	Team will recover the IP, and remaining personnel will self-rescue to a designated safe location, as appropriate	All
10.	<b>Team will use PID meter to ensure the PPM levels from the IP's clothing, and everyone else, are at a safe level prior to removing their or IP's BA set.</b>	RST
11.	If PID meter levels are <b>NOT</b> safe, BA sets to be kept on whilst first-aid / being checked over, is carried out. If PID meter levels are safe, BA sets can be removed carefully, whilst first-aid / checks are carried out.	
12.	Handover to be performed with the emergency services as soon as possible and provide assistance, as required	Rescue ops supervisor RST
13.	All personnel stood down and checked over by first-aiders / RST / PID meter (For 2 <sup>nd</sup> Time)	All

 14.	Highest gas monitor readings to be obtained from all devices and recorded CH <sub>4</sub> = O <sub>2</sub> = C <sub>0</sub> = H <sub>2</sub> S =	All
15.	All personnel stood down for 24 hrs to assess and review lessons learned.	All
16.	Maintain regular checks on each other for next 24hrs. (Buddy / buddy system)	All

### Rescue of Personnel from the deck of MV Forth Drummer

The following steps describe the procedure to perform a rescue of IP(s) safely and effectively during operations from the deck of the Forth Drummer in the event of a gas leak.

Method of Work		
Item	Task	Persons responsible
<b>NO SMOKING ALLOWED!</b>		
1.	RTS Reviews risk assessments and emergency procedure	RST
 2.	BA sets tested, Personal gas monitors to be bump tested prior to shift start BA sets and gas monitors are to be left in a state of immediate readiness to respond if called upon.	All team
 3.	Rescue team's supervisor holds toolbox talk – ensuring that all personnel are aware of the plans, safe use of the escape set and familiarisation with the risks at hand	RST
 4.	Team to be standing by whilst operations are being performed. Team must be near to site but far enough away to not be affected by any uncontrolled release of gases or increase in the gas levels that trigger the audible alarms. Team will be on standby, up wind of the job location!	RST
<b>Alarm sounds / incident occurs</b>		
5.	On hearing alarms or being called to assist with an IP, the rescue team will immediately don their BA sets Skipper to sounds alarms	All

	<p><b>Port Authority to be contacted via VHF and apprised of containment breach</b></p> <p><b>EMERGENCY SERVICES TO BE CONTACTED</b></p>	
<p>6.</p> 	<p>Team to check over each other ensuring kit is worn correctly</p>	<p>All</p>
<p>7.</p>	<p>Team must take care to watch for diver / ropes / anchor lines / deck obstructions</p> <p>Team assess dangers and move into the hazard area and locate the IP, as appropriate.</p>	<p>All</p>
<p>8.</p>	<p>POB list to be taken by Skipper and search made of vessel to account for all persons</p> <p>Team will recover the IP, and remaining personnel will self-rescue to a designated safe location, as appropriate</p>	<p>All</p>
<p>9.</p>	<p><b>Team will use PID meter to ensure the PPM levels from the IP's clothing, and everyone else, are at a safe level prior to removing their or IP's BA set.</b></p>	<p>RST</p>
<p>10.</p>	<p>If PID meter levels are <b>NOT</b> safe, BA sets to be kept on whilst first-aid / being checked over, is carried out.</p> <p>If PID meter levels are safe, BA sets can be removed carefully, whilst first-aid / checks are carried out.</p>	
<p>11.</p>	<p>Handover to be performed with the emergency services as soon as possible and provide assistance, as required</p>	<p>Rescue ops supervisor RST</p>
<p>12.</p>	<p>All personnel stood down and checked over by first-aiders / RST / PID meter (For 2<sup>nd</sup> Time)</p>	<p>All</p>
 <p>13.</p>	<p>Highest gas monitor readings to be obtained from all devices and recorded</p> <p>CH<sub>4</sub> =</p> <p>O<sub>2</sub> =</p> <p>C<sub>0</sub> =</p> <p>H<sub>2</sub>S =</p>	<p>All</p>
<p>14.</p>	<p>All personnel stood down for 24 hrs to assess and review lessons learned.</p>	<p>All</p>
<p>15.</p>	<p>Maintain regular checks on each other for next 24hrs. (Buddy / buddy system)</p>	<p>All</p>

## Rescue of Personnel from Water

The following steps describe the procedure to perform a rescue of IP(s) safely and effectively during operations from the deck of the Forth Drummer in the event of a gas leak.

Method of Work		
Item	Task	Persons responsible
	<b>NO SMOKING ALLOWED!</b>	
1	RTS Reviews risk assessments and emergency procedure	RST
2. 	BA sets tested, Personal gas monitors to be bump tested prior to shift start BA sets and gas monitors are to be left in a state of immediate readiness to respond if called upon.	All team
 3.	Rescue team's supervisor holds toolbox talk – ensuring that all personnel are aware of the plans, safe use of the escape set and familiarisation with the risks at hand	RST
4. 	Team to be standing by whilst operations are being performed. Team must be near to site but far enough away to not be affected by any uncontrolled release of gases or increase in the gas levels that trigger the audible alarms. Team will be on standby, up wind of the job location!	RST
<b>Alarm sounds / incident occurs</b>		
5.	On hearing alarms or being called to assist with an IP, the rescue team will immediately don their BA sets <b>Port Authority to be contacted via VHF and apprised of containment breach</b> <b>EMERGENCY SERVICES TO BE CONTACTED</b>	All
6. 	Team to check over each other ensuring kit is worn correctly	All
7.	DS to recover Diver 1. Tenders to provide and flush positive pressure hood for Diver 1 and Standby, then self-rescue to designated safe location.	Tenders DS
8.	Whilst taking care to watch for diver / ropes / anchor lines / deck obstructions, Rescue team assess dangers and move into the hazard area to locate / recover IP, as appropriate.	All
9.	Team to recover IP to designated safe location.	All

	POB list to be taken by Skipper and search made of vessel to account for all persons Remaining personnel will self-rescue to a designated safe location, as appropriate	
10.	<b>Team will use PID meter to ensure the PPM levels from the IP's clothing, and everyone else, are at a safe level prior to removing their or IP's BA set, as required.</b>	RST
11.	If PID meter levels are <b>NOT</b> safe, BA sets to be kept on whilst first-aid / being checked over, is carried out. If PID meter levels are safe, BA sets can be removed carefully, whilst first-aid / checks are carried out.	All
12.	Handover to be performed with the emergency services as soon as possible and provide assistance, as required	Rescue ops supervisor RST
13.	All personnel stood down and checked over by first-aiders / RST / PID meter (For 2 <sup>nd</sup> Time)	All
 14.	Highest gas monitor readings to be obtained from all devices and recorded CH <sub>4</sub> = O <sub>2</sub> = C <sub>0</sub> = H <sub>2</sub> S =	All
15.	All personnel stood down for 24 hrs to assess and review lessons learned.	All
16.	Maintain regular checks on each other for next 24hrs. (Buddy / buddy system)	All

### 3. BRIEFING RECORD

The following briefing record will be filled out and signed by all personnel to confirm and record that all personnel have received and understood the necessary briefing:

Briefing Record	
Method Statement Title & Number	<ul style="list-style-type: none"> <li>DV0240-4008 Barge salvage – Portree Rescue Party Method statement</li> </ul>
Revision Number	<ul style="list-style-type: none"> <li>1.0</li> </ul>
Permit to Work	<ul style="list-style-type: none"> <li>Kishorn port</li> <li>BMC</li> <li>Harbour authority</li> </ul>



---
