

<b>Walkers Subsea Services (pvt) Ltd.</b>		<b>Title</b> Best safety practices to be followed before commence/while operation going on and at the end of the operation	
Issue Date :	15/06/2016	Issue no: 01	WSS/HCO/07
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### Scope

This section of the procedure described the good diving practices and safety measures applicable Hull cleaning operation.

### Responsibility

Diving team is overall responsible for this process

### Inputs

Diver certificates / medicals  
Toolbox meeting  
Pre operational checks  
Permit to work for vessel and dive boat  
Risk Assessment

### Out put

Ensure safe working environment

### Procedure

#### Tool box meeting/pre dive safety meeting

Diving supervisor shall conduct a briefing on diving process. That should be conducted before each job. During tool box meeting following shall discussed but not limited to,

1. The Contacts of the Site's Representatives
2. The Contacts and Locations of the Emergency Services
3. Instructions are given clearly stating the roles of the divers during the diving operation.
4. Prior to mobilization, a project risk assessment/hazard identification process or dive plan shall be performed to determine the type of diving mode to be employed.
5. A Job hazard analysis shall be completed and all members of the dive team, including master of the vessel and CE
6. Equipment needed and job manning requirements
7. Other work being undertaken in the vicinity such as Lifting etc.
8. Any other instructions or information relevant to the job at hand and special points that master /CE brought in to notice (vessel succession and releasing plan)
9. On completion all divers to sign and date toolbox talk document.

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### **Simultaneous operations**

Simultaneous Operations (SIMOPS) should not be carried out while diving operation is in progress

1. Lifting activities within in the diving vicinity
2. Scaffold above divers or diving vicinity
3. Starting of suction or discharge pumps/activities within diving vicinity
4. Any other hazardous conditions which the dive supervisor may deem unfit for diving operations.
5. Crew boats are not allowed

### **Diver Communications**

1. Clear lines of two way communications shall be established between the Diver to the Dive Supervisor,
2. Communication systems to be function tested and checked prior to commencing diving operation.
3. EXO mask and KMB mask with communication facility are used while brush cart operation and CCTV inspection.
4. When scuba is used two divers are allocated for operations and divers are engaged in activities where visible distance to each other, hand signals may be used for better communication – Annex 01

### **Pre operation checks**

Before commence the cleaning operation, the diving supervisor /diver shall ensure that all diving, communication and safety equipment are function properly without any defects. Also ensure that team is capable of handling emergency situations as per procedure mentioned in ERP.

Following check list are completed by diving supervisor/diver before commence the operation.

- i. Pre operation check list
- ii. Diver Checklist
- iii. Dive log sheet

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### **Work permit**

Before commerce, each diving operation a work permit is issued by vessel. Work permit is handed over to diving supervisor and sign off after verifying the implementation of proper Lock out and Tag out systems.

Lock outs and tag outs are placed in the working boat also

### **Below maximum depth should not exceed**

MAXIMUM DEPTH FOR SELF-CONTAINED DIVING (SCUBA) – 100 FSW (30 MSW)

MAXIMUM DEPTH FOR SURFACE-SUPPLIED AIR DIVING (SSBA) – - 100 FSW (30 MSW) with no decompression

Minimum personnel requirements for Commercial SCUBA diving 0-100 FSW (0-30 MSW) with no decompression:

- One diving supervisor
- One Diver
- One tender / diver who shall be properly equipped and capable of performing the duties of a standby diver. When two divers are simultaneously in the water and can maintain visual contact, they can act as standby diver for each other.

### **Below given Good Diving Practices shall be observed whilst engaged in SCUBA diving operations.**

- Two-way audio-communications between the diver and topside are required.
- The planned time of a scuba diving operation shall not exceed either the no decompression limits or the air supply duration of the cylinders exclusive of the reserve supply. The cylinder pressure shall be determined immediately before each dive. Dive depths shall not exceed 100 FSW (30 MSW).
- Dives shall not be conducted against currents exceeding one knot.
- Dives shall not be conducted in enclosed or physically-confining spaces.
- During all SCUBA dives, a standby diver shall be available while a diver is in the water.
- SCUBA divers shall be line tendered from the surface, or accompanied by another diver in the water in continues visual contacts during the diving operation.
- Diving on SCUBA will only be allowed during daylight hours.
- All divers on SCUBA shall wear a Buoyancy Compensator Device and a whistle or other audio signalling device.

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- All divers shall wear a diver rescue harness
- During the periods of low or poor surface visibility, the divers shall carry a lighted beacon.
- The SCUBA divers shall be equipped with a submersible pressure gauge (tank contents gauge)
- All the divers shall be equipped with an emergency gas supply (bailout) with minimum calculated four minutes supply at the stipulated depth.
- Each diver shall be equipped with a knife, diving wristwatch and depth gauge
- Full face mask / helmet with through water communication to the surface (supervisor)
- An emergency O<sub>2</sub> administration kit (readily available for the treatment of divers)

**The company declares that the maximum divers in the water in SSBA diving operation is restricted to 02 divers at a time.**

#### **Applicable document**

Toolbox meeting log	WSS /HCO/07- 01
Pre operation checklist	WSS /HCO/07- 02
Dive checklist	WSS /HCO/07- 03
Dive log sheet	WSS /HCO/07- 04
Permit to work	WSS /HCO/07- 05
US navy diving table	
Emergency response Procedure	WSS/HCO/07-06
Risk Assessment	WSS/CHO/07-07
List of participants	WSS/CHO/07-08
Bailout bottle pressure charts	ACDA table