Questionnaire number ☐☐☐☐☐

Health Surveillance for Professional Divers Working in the Offshore Oil and Gas Industry

Follow-up Questionnaire

International Marine Contractors Association

Version 1.1

February 2009

Health Surveillance Questionnaire for Professional Divers

Introduction

This is a yearly, voluntary, follow up questionnaire concerning your health. The information will be filed as a part of your medical file. At any time you can withdraw your consent to participate in this surveillance, in such a case your information will be filed but not used for company purpose – like statistics. The information will only be handled by the company health service and occupational health doctor. The purpose of the questionnaire is to detect early signs of medical problems that are known to be associated with diving. By doing this, preventative measures can be taken and undue illness avoided.

In case of need for individual follow up the occupational health doctor will contact you

Please answer the questions as instructed and otherwise by placing a *cross or number* in the box. If you make a mistake place a single line through the incorrect answer and put a cross or number in the box of the correct answer. Where asked "Yes – number of times" please enter the number of times that you have experienced the problem or issue.

Confidentiality

The information that you provide in this form will be handled in the following manner:

1 - Your occupational health service will use the information under strict confidence to provide work related health surveillance. Any other use of your information that includes your personal identification details can only take place with your written permission. Information which identifies you will not be passed on to line management without your permission. You are free at any time to have a copy of your occupational health record.

2 - Health surveillance records are a very important source of information. In the future there might be interest for research on the information gathered on long term effects in divers. In such cases a letter will be sent to each diver for consent. No information will be used outside the Occupational Health Service without as specific consent from you. In research cases page two of the questionnaire will be removed so the diver is "un identified", and only given a company code.

To be entered by Occupational Health Service Company ☐☐ Code ☐☐☐ ☐☐

Coding of the form allows use of the information without your identity details. Coding information is held by your Occupational Health Service and allows you to track your data through any subsequent study of anonymised data. Coding will be filled in by your Occupational Health Service

SECTION 1 PERSONAL DETAILS (please print or use block capitals)

1.1 - Surname _____

1.2 - First names _____

1.3 - Gender **Male** ☐ **Female** ☐

1.4 - Date of birth (dd/mm/yyyy) ☐☐ / ☐☐ / ☐☐☐☐

Health Surveillance Questionnaire for Professional Divers

To be entered by Occupational Health Service Company ☐☐ Code ☐☐☐ ☐☐

TODAY'S DATE (dd/mm/yyyy) ☐☐ / ☐☐ / ☐☐☐☐

SECTION 2 LIFESTYLE

Your lifestyle has important implications for your overall health and some factors need to be considered in the interpretation of the questionnaire. Please give the details requested.

2.1 - Which of the following best describes your *current* work status?

Self employed working for a single diving company only	Self employed working for more than one diving company only	Self employed and also working outside the diving industry	Salaried diver with a single diving company
☐	☐	☐	☐

2.2 - How much do you currently weigh? ☐☐☐ kg or ☐☐ st ☐☐ lbs

2.3 - How tall are you? ☐☐☐ cm or ☐ ft ☐☐ ins

2.4 – How old are you? ☐☐ years

2.5 - Have you smoked more than 100 cigarettes IN TOTAL in your life? No ☐ Yes ☐

2.5.1 - if yes, complete the following:

Current Smokers		**Ex-Smokers**	
		In what year did you stop smoking?	☐☐☐☐
How many *years* in total have you smoked?	☐☐	How many *years* in total did you smoke?	☐☐
How many *cigarettes* do you smoke per day?	☐☐	How many *cigarettes* did you smoke per day?	☐☐

2.6 - During the last 12 months, how often have you drunk 8 units or more on any one occasion? (8 UNITS are equivalent to 4 pints of normal strength beer, lager or cider OR 8 small glasses of wine OR 8 shots of spirit)

Never	More than 20 times a month	10-20 times a month	1-9 times a month,	If LESS than monthly how many times a year?
☐	☐	☐	☐	☐☐

SECTION 3 OCCUPATIONAL HISTORY

Every occupation has its own particular health implications. It would be helpful, therefore, for your occupational health doctor to have details of your career to date.

3.1 - Present employment

Please describe each job.
If you work as a diver in different sectors, please enter each separately.

Job number	Job description	Industry	Start year	Weeks per year
1				
2				
3				
4				
5				

SECTION 4 DIVING

Details of the diving you do is useful to find whether any health issue is related to the diving that you do. Where asked for number of dives, these can be approximate estimates.

Definitions

Air or Nitrox – dives using nitrogen or oxygen mixtures
Mixed gas – dives using helium and/or hydrogen with any equipment including rebreathers

SCUBA – dives using self contained underwater breathing apparatus using air and/or oxygen
SurDO_2 – dives using surface decompression with oxygen breathing
Surface supplied – dives using surface supplied air or nitrox

Mixed gas bounce – Surface orientated dives using helium/oxygen or helium/nitrogen/oxygen
Saturation – Pressure habitat orientated diving with divers stored at pressure

4.1

When did your LAST professional dive end (mm/yyyy)	☐☐ / ☐☐☐☐

4.2 - Surface orientated air or nitrox diving since your last questionnaire

Number of Air / Nitrox Dives	number of dives
SCUBA	☐☐☐
SurDO$_2$	☐☐☐
Surface supplied	☐☐☐

Depth of Air or Nitrox Dives	
Metres of sea water	number of dives
less than 30	☐☐☐
30-50	☐☐☐
More than 50	☐☐☐

4.3 - Surface orientated mixed gas diving since your last questionnaire

Number of Mixed Gas Bounce Dives	
number of dives	☐☐☐

Depth of Mixed Gas Bounce Dives	
Metres of sea water	number of dives
less than 80	☐☐☐
80-120	☐☐☐
more than 120	☐☐☐

4.4 - Chamber orientated mixed gas diving since your last questionnaire

How many times have you surfaced from saturation? ☐☐☐☐

Number of Days in Saturation	
Total number of **days** in saturation	
number of days	☐☐☐☐

Depth of Saturation Dives	
Metres of sea water	number of dives
less than 100	☐☐☐
100-180	☐☐☐
more than 180	☐☐☐

4.5 - What diving sectors have you worked in since your last questionnaire?

Offshore – oil industry	Yes ☐	No ☐	Recreational instructor	Yes ☐	No ☐
Coastal or inshore – not oil industry	Yes ☐	No ☐	Military	Yes ☐	No ☐
Shellfish	Yes ☐	No ☐	Hyperbaric chamber internal attendant	Yes ☐	No ☐
Scientific / archaeological	Yes ☐	No ☐	Compressed air work (caissons/tunnelling)	Yes ☐	No ☐
Police	Yes ☐	No ☐	Media	Yes ☐	No ☐

4.6 – Recreational diving since your last questionnaire

Have you dived recreationally since your last questionnaire? Yes ☐ No ☐

If YES complete the rest of section 4.6.

If NO go to section 4.7

4.7 – Recreational surface orientated air or nitrox diving since your last questionnaire

Number of Air / Nitrox Dives	
	number of dives
SCUBA	☐☐☐
Surface supplied	☐☐☐

Depth of Air or Nitrox Dives	
Metres of sea water	number of dives
less than 30	☐☐☐
30-50	☐☐☐
More than 50	☐☐☐

4.8 – Recreational surface orientated mixed gas diving since your last questionnaire

Number of Mixed Gas Bounce Dives	
number of dives	☐☐☐

Depth of Mixed Gas Bounce Dives	
Metres of sea water	number of dives
less than 80	☐☐☐
80-120	☐☐☐
more than 120	☐☐☐

It is important that your occupational health doctor knows whether you have suffered any accidents, illnesses or symptoms relating to your diving

4.9 – Accidents, illness and symptoms related to diving since your last questionnaire

(A symptom is any sensation or change in bodily or mental function)

Have you suffered from any of the following since your last questionnaire?	No	Yes – number of times
1 - Neurological decompression illness?	☐	☐☐
2 - Cerebral gas embolism?	☐	☐☐
3 - Pain only decompression illness?	☐	☐☐
If yes for 1, 2 or 3, was recompression or treatment gas at pressure given?	☐	☐☐
Underwater explosion	☐	☐☐
Loss of consciousness while under pressure	☐	☐☐
Drilling mud skin burn	☐	☐☐
Contaminated breathing gas	☐	☐☐
Underwater explosion	☐	☐☐
Partial drowning	☐	☐☐
Illness preventing you from working during a saturation dive	☐	☐☐
Symptoms of any kind during decompression or within six hours after surfacing not identified as decompression illness or cerebral gas embolism?	☐	☐☐

If yes give details:

Diving related bone necrosis can cause arthritis of the hip or shoulder joint causing some of the symptoms in section 4.9.1

4.9.1 At any time

Do you get pain in the groin when walking?	Yes ☐	No ☐
Do you get pain in the hip when walking?	Yes ☐	No ☐
Do you get pain in the knee when walking?	Yes ☐	No ☐
Does one leg feel shorter than the other?	Yes ☐	No ☐
Do you walk with a limp?	Yes ☐	No ☐
Do you get pain in the shoulder with activity?	Yes ☐	No ☐
Do you get stiffness in the shoulder?	Yes ☐	No ☐

SECTION 5 NOISE

Excess noise is an important and preventable cause of hearing impairment.

5.1 - In any of your current jobs

Is noise intrusive - like a busy street, vacuum cleaner or crowded restaurant - for most of the working day?	Yes ☐	No ☐
Do you work in a noisy industry, e.g. construction, demolition or road repair; woodworking; plastics processing; engineering; textile manufacture; general fabrication; forging, pressing or stamping; paper or board making; canning or bottling; foundries?	Yes ☐	No ☐
Do you have to raise your voice to have a normal conversation when about 2 m apart for at least part of the day?	Yes ☐	No ☐
Does noise hinder the use of a communications system?	Yes ☐	No ☐
Are there noises because of impacts (e.g. hammering, drop forging, pneumatic impact tools etc), explosive sources such as cartridge-operated tools or detonators?	Yes ☐	No ☐
Do you use noisy powered tools or machinery for over half an hour a day?	Yes ☐	No ☐
Do you have muffled hearing at the end of the day, even if it was better by the next morning?	Yes ☐	No ☐
Are you ever been exposed to gunfire or explosions?	Yes ☐	No ☐
If yes, is this regular exposure to gunfire or explosions?	Yes ☐	No ☐

5.2

Which of your jobs, including diving, had any of the levels of noise described in section 5.1 above? (insert job numbers from sections 3.1)			

5.3 - While diving, what location had any of the levels of noise described in section 5.1?

	Never	A little of the time	Some of the time	Most of the time	All of the time
In the water	☐	☐	☐	☐	☐
In the bell	☐	☐	☐	☐	☐
in the welding habitat	☐	☐	☐	☐	☐
in the living chambers	☐	☐	☐	☐	☐

Wearing hearing protection can materially reduce the risk of hearing impairment in the workplace

5.4 – Hearing protection

In your noisy jobs (from section 5.2) do you wear hearing protection?	All of the time	☐
	Most of the time	☐
If no noisy jobs got to section 5.5	Some of the time	☐
	A little of the time	☐
	Never	☐

Certain symptoms may indicate early hearing loss and may indicate that you have an audiogram for further assessment

5.5 – Symptoms of hearing loss and previous hearing problems

Do you have difficulty with your hearing?	Yes ☐	No ☐
Do you have the radio or television on louder than the rest of the family?	Yes ☐	No ☐
Do you have difficulty in deciding where sounds come from?	Yes ☐	No ☐
Do you have difficulty with telephone conversations with either ear?	Yes ☐	No ☐
Do you suffer from wax in the ears?	Yes ☐	No ☐

5.6 – Other ear problems since your last questionnaire

Have you suffered from -	dizziness or vertigo?	Yes ☐	No ☐
	pain in the ears?	Yes ☐	No ☐
	running ears?	Yes ☐	No ☐
	abscess in the ear?	Yes ☐	No ☐
	pseudomonas ear infection (pyo)?	Yes ☐	No ☐
	any other ear infection?	Yes ☐	No ☐
	ear injury or barotrauma?	Yes ☐	No ☐
	perforated ear drum?	Yes ☐	No ☐
	noises or ringing in the ears?	Yes ☐	No ☐

SECTION 6 - VIBRATION

6.1

Have you been using hand-held vibrating tools, machines or hand held processes in your job since your last questionnaire?	Yes ☐	No ☐

If NO or more than 2 years since your last exposure go to section 7. If YES or less than 2 years since your last exposure continue to section 6.2

Hand Arm Vibration Syndrome

Upper limb exposure to vibration can lead to hand arm vibration syndrome (HAVS) which is also known as vibration white finger. It is a disorder which affects the blood vessels, nerves muscles and joints of the hand, wrist and arms which can become severely disabling if ignored.

HAVS can be avoided by controlling exposure to vibration.

HAVS is reversible if detected early and further exposure to vibration controlled.

Signs to look out for are:

- pain, tingling or numbness in the fingers, hands, wrists and arms;
- in the cold and wet, fingers go white, then blue, then red and are painful;
- you can't feel things with your fingers;
- loss of strength in hands.

6.2 – Since your last questionnaire have you operated

Hammer action tools		
hammer action tools for more than about one hour per day?	Yes ☐	No ☐
If no, then for more than about 15 minutes per day?	Yes ☐	No ☐
Rotary or other action tool		
rotary or other action tool for more than about four hours per day?	Yes ☐	No ☐
If no, then for more than about one hour per day	Yes ☐	No ☐

6.3 - If you have used any hand-held power tools, hand-guided powered equipment or powered machines which process hand held materials since your last questionnaire

In which jobs, including diving, did you operate them (insert job numbers from sections 3.1)			

6.4

Do you have any tingling of the fingers lasting more than 20 minutes after using vibrating equipment?	Yes ☐	No ☐
Does one or more of your fingers go numb more than 20 minutes after using vibrating equipment?	Yes ☐	No ☐
Do you have tingling of the fingers at any other time?	Yes ☐	No ☐
Do you wake at night with pain, tingling, or numbness in your hand or wrist?	Yes ☐	No ☐
Have any of your fingers gone white on cold exposure?	Yes ☐	No ☐
(White means a clear discoloration of the fingers with a sharp edge, usually followed by a red flush.)		
Have you noticed any change in your response to your tolerance of working in the cold?	Yes ☐	No ☐
Are you experiencing any other problems in your the hands or arms?	Yes ☐	No ☐
Do you have difficulty picking up very small objects e.g. screws or buttons or opening tight jars?	Yes ☐	No ☐
Has anything changed about your health since your last questionnaire?	Yes ☐	No ☐
If YES please describe:		

SECTION 7 SOLVENTS AND CHEMICALS

7.1 – Since your last questionnaire, while diving (in the water, bell, welding habitat or living chambers) have you experienced

		In the water		In the bell		in the welding habitat		in the living chambers	
		No	Yes – number of times	No	Yes – number of times	No	Yes – number of times	No	Yes – number of times
1	petrochemical smell	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
2	hydrogen sulphide smell	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
3	any other smell	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
4	irritation of eyes	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
5	gritty taste in mouth	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
6	lung irritation/cough	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
7	skin irritation	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
8	headache	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
9	nausea	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
10	dizziness	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
11	light-headedness	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐
12	loss of consciousness	☐	☐☐	☐	☐☐	☐	☐☐	☐	☐☐

Skin exposure to solvents or chemicals is a preventable cause of occupational dermatitis. Could you answer the questions below to help your occupational health doctor to assess any problem

7.3 - Have you had any of the following on the skin of your fingers, hands, forearms, toes, feet or legs since your last questionnaire?

redness and swelling	Yes ☐	No ☐
cracking of skin	Yes ☐	No ☐
small skin blisters/bubbles/vesicles	Yes ☐	No ☐
flaking or scaling of skin	Yes ☐	No ☐
itching with cracks or splits in the skin	Yes ☐	No ☐
skin infection	Yes ☐	No ☐
spots, redness or swelling of any other part of the body	Yes ☐	No ☐

7.4

Do you currently have any of the symptoms mentioned in section 7.3	Yes ☐	No ☐
Did you suffer any of these problems for more than three weeks	Yes ☐	No ☐
Did any of these problems occur more than once	Yes ☐	No ☐
Did you suffer any of these problems with diving	Yes ☐	No ☐
Did you suffer any of these problems with your other work	Yes ☐	No ☐
Does your skin improve with time away from work	Yes ☐	No ☐
Have you taken time of work because of your skin	Yes ☐	No ☐

7.5 – Drilling mud

	No	Yes number of times
While working as a diver have you found drilling mud inside your diving suit at the end of a dive or shift since your last questionnaire	☐	☐☐☐

SECTION 8 WELDING

Welding, especially with materials such as stainless steel, is associated with some health effects. Please answer the questions in this section to allow assessment of your exposure to welding fume and welding accidents.

8.1

Have you worked as a welder since your last questionnaire?	Yes ☐ No ☐
If NO go to section 9. If YES continue below.	
when was the last time you welded? (mm/yyyy)	☐☐ / ☐☐☐☐

8.2 - Since your last questionnaire, what <u>percent</u> of your welding was done in the following work areas?

	Percent	Never
Outdoors?	☐☐☐%	☐
Indoors in a well ventilated area?	☐☐☐%	☐
In a small, poorly ventilated area?	☐☐☐%	☐
In a pressurised welding habitat)?	☐☐☐%	☐
Wet welding – welding in water while diving	☐☐☐%	☐

8.3

After a welding shift	Never	A little of the time	Some of the time	Most of the time	All of the time
Do you cough up brown or black sputum?	☐	☐	☐	☐	☐
Do you blow brown or black stuff into your handkerchief from your nose?	☐	☐	☐	☐	☐

8.4 -since your last questionnaire have you used the following personal protective breathing equipment while welding?

	Percent	Never
Simple dust mask	☐☐☐ %	☐
Filter respirator (e.g 3M disposable masks)	☐☐☐ %	☐
Filter canister respirator (strap-on mask with replaceable filter canister)	☐☐☐ %	☐
Atmosphere supply respirator (e.g. Aga mask)	☐☐☐ %	☐
Other, please name: _____	☐☐☐ %	☐

8.5 -Since your last questionnaire, at work, have you used any of the following techniques

if yes: on how many days have you used the techniques?

Please estimate

	Yes	No	Days
Manual Metal Arc (MMA)	☐	☐	☐☐☐
Metal Inert Gas (MIG)	☐	☐	☐☐☐
Tungsten Inert Gas (TIG)	☐	☐	☐☐☐
Oxyfuel (e.g. oxyacetylene)	☐	☐	☐☐☐
Flux Cored Arc (FCW)	☐	☐	☐☐☐
Flame or Arc Metal cutting	☐	☐	☐☐☐
Other, please name _____	☐	☐	☐☐☐

8.6 - Since your last questionnaire, while working as a welder have you suffered any of the following accidents

	No	Yes – number of times
Major electric shock	☐	☐☐
Burns (including radiation burns)	☐	☐☐
Eye damage (e.g. arc eye, flash, radiation, foreign body)	☐	☐☐
Metal fume fever	☐	☐☐
Ear damage (for example a perforated eardrum)	☐	☐☐

8.7 - While working as a welder or within six months of working as a welder have you suffered any of the following health effects, since your last questionnaire?

	No	Yes – number of times
Cough	☐	☐☐
Tight chest	☐	☐☐
Wheeze	☐	☐☐
Chest infection, bronchitis or pneumonia	☐	☐☐
Chest, jaw or arm pain when walking, climbing stairs or running	☐	☐☐

SECTION 9 FURTHER COMMENTS

9.1 – Previous questionnaires

	No	Yes number of times
Have you filled one of these questionnaires before?	☐	☐☐☐

That completes the questionnaire. Thank you for completing it. If you have any further health concerns that you wish to detail please do so below.

GLOSSARY

arthritis
inflmmation of joints causing pain, disability and joint destruction 9
asthma
respiratory disorder characterised by wheezing 15
Entrance
This is the first of a series of health surveillance questionnaires 1
necrosis
tissue death 9
sputum
a substance such as saliva, phlegm or mucus coughed up from the respiratory tract 17
Symptoms
A symptom is any indication of physical or mental abnormality..... 8
units
1 unit is 8 g or 10 ml of pure alcohol. 3
Wheeze
a high pitched whistling noise coming from the chest on breathing out 19
wheezy
making a high pitched whistling noise from the chest when breathing out 15

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