

**MINUTES OF THE FORTY THIRD MEETING OF THE SHIPBUILDING AND SHIP-REPAIRING HEALTH AND SAFETY CONSULTATIVE COMMITTEE ON 5TH DECEMBER 2001 AT TRINITY MARITIME CENTRE, NEWCASTLE UPON TYNE**

**PRESENT**

Mr Alan Clisby, *Babcock Rosyth*  
Mr Mark Eltringham, *Babcock Rosyth*  
Mr Mark Lomas, *DML*  
Mr Don MacDonald, *Portsmouth Naval Base*  
Mr Keith Strachan, *Pyeroy*  
Mr Bill Corteen, *Engineering & Marine Training Authority*  
Mr Nick Granger, *Shipbuilders & Shiprepairers Association*  
Mr Joe Atkinson, *A & P Tyne Ltd*  
Mr Malcolm Watson, *Swan Hunters (Ltd)*  
Mr Douglas Thompson, *HMNB Clyde*  
Mr David Allinson, *Marine Painting Forum*  
Mr Graham Morrison, *Warship Support Agency*  
Mr Jon Davies, *BAE Systems*  
Ms Kay Nicholson, *BAE Systems*  
Mr Edward Paton, *BAE Systems*  
Mr Pete Harding, *Vosper Thornycroft*  
Mr Les Jordan, *Draeger Ltd*  
Mr Bill O'Neill, *HSE Northern Ireland*

Ms Rosi Edwards, *HSE*  
Mr Roger Sykes, *HSE*  
Mr Graham Watson, *HSE*  
Miss Margaret Simpson, *HSE*

**APOLOGIES**

Mr Jim Picksley, *GMB*  
Mr Tom Brennan, *GMB*  
Mr Barry Irvine, *Fleet Support Ltd*  
Mr Nik Parker, *British Marine Industries Federation*  
Mr Alan Robson, *CSEU*  
Mr Alan Kirkwood, *Semple Cochrane*  
Mr Alan Lascelles, *The Environment Agency*  
Mr John Brown, *George Prior Engineering*

**WELCOME**

Members were welcomed to the 43rd meeting by Mrs Clark of the Trinity Maritime Centre. She informed the members that the Museum would be closing in the new year.

Most of the exhibits in the museum will be forwarded onto the Newcastle Discovery Museum, and others onto smaller museums or sent back to their owners.

## **1. CHAIRPERSONS INTRODUCTION**

Ms Rosi Edwards welcomed the members including new members Keith Strachan from Pyeroy Ltd and Kay Nicholson who has replaced Allan Rollinson at BAE systems. Also welcomed were Mr Les Jordan from Draeger Ltd, Mr Mark Eltringham from Babcock Rosyth and Mr Douglas Thompson from HMNB Clyde attending instead of Captain Andrew McFarlane.

## **2. APOLOGIES FOR ABSENCE**

Ms Edwards passed on apologies for absence and informed members that the Secretariat had received a letter from Paul Jackson of the Bureau of Competent Analysts advising that the Bureau has unfortunately been wound up due to lack of demand for their services. The Committee extended their thanks to the Bureau for their contribution over the years to the work of the Committee.

## **3. MINUTES OF LAST MEETING**

These were accepted as a true record.

## **4. MATTERS ARISING**

### *(a) Minute item 5 - Olivine*

Mr Watson informed the members of a recent development regarding Olivine, an issue that Mr Allison had raised due to concerns of possible asbestos contamination. The importer involved, Quay minerals, has verbally offered to voluntarily stop supplying olivine for use in dry abrasive blasting as from February 2002. A voluntary ban may be the best option due to the problem of uncertainty caused by the fact that one sample of olivine can contain asbestos when another one does not making it difficult to enforce such a ban. Olivine will still be supplied for use in wet blasting however the importance of cleaning up the spent abrasive when still wet was emphasised. Members were advised that until the voluntary ban comes into place that they should not use olivine for dry blasting unless the supplier is able to guarantee that it is asbestos free. In addition there are numerous other alternatives to olivine that can satisfactorily be used. Mr Watson will update the members at the next meeting on what is a constantly evolving situation. *Footnote* - as the issue of asbestos was raised at the meeting Mr Granger forwarded the enclosed document detailing the Italian laws on asbestos removal, should it be of interest to members.

*Action: Mr Watson*

### *(b) Minute item 6 - Ultra high pressure water jetting.*

Mr Watson referred to the Sector Information Minute distributed at the last meeting on protective clothing for use when ultra high pressure water jetting. The new type of protective clothing referred to had been mistakenly called 'Total skin protection' and is in fact called 'Turtle skin protection.' As stated at the last meeting it has now gained a CE mark but the manufacturers have not yet let the final report from the test house be seen. The Water Jetting Association working with a manufacturer is close to having a new type of protective footwear available for sale. They have asked that the Sector Information Minute be delayed so that it can contain details of the footwear. Mr Watson will inform the members when the Sector Information Minute has been issued.

*Action: Mr Watson*

## **12. EUROPEAN DIRECTIVE UPDATE.**

Mr Sykes updated the members on developments of the CAD/ATEX and the Physical Agents Directive. The Health part of the Chemical Agents Directive is progressing and a Consultative Document has been produced for amendments to the Control of Asbestos at Work Regulations which can be found on HSE's web site at <http://www.hse.gov.uk/condocs/live.htm> This covers four main areas; the duties to manage asbestos, which include revised proposals; the implementation of the Directive in relation to asbestos; accreditation for analysis of materials of asbestos and amendments to the Enforcing Authority Regs. The consultation ends 19th February 2002. There are also separate proposals for new Control of Substances Hazardous to Health Regulations and Control of Lead at Work Regulations to implement other health aspects of the Chemical Agents Directive (CAD) and to consult on revision of the COSHH ACOPs

Work is continuing on the safety requirements of CAD/ATEX which will replace the remaining hot work requirements in the Shipbuilding and Shiprepairing Regulations. A Consultative Document will probably be out early next year, members were advised to keep a look out for it in case it is released prior to the April SSHSCC meeting. Members will though be updated on the latest position at the April meeting.

*Action: Mr Sykes*

Progress on The Physical Agents Directive has slowed down in relation to noise. It is awaiting co-decision in Europe between the European Parliament and the European Council.

In relation to vibration the European Parliament has commented, aimed largely at tightening on whole body vibration. The Directive is now in conciliation process between EP and Council. Agreement should be reached by end of January 2002 latest. If no consensus is reached then the Directive will fail but this is unlikely to happen. Lobbying would seem to have had the necessary effect. If the requirements on hand arm vibration remain as agreed, there will be a long lead in period; implementation will be 3 years i.e. by 2005 and then transition periods will follow. Any new equipment bought up to 2008 would not have to meet requirements until 2011. Members were advised the long lead in period will provide them with an opportunity to look for new ways of working without

using hand held power tools. Power tool manufacturers and suppliers will also have an opportunity to look at improving their designs.

Mr Allison asked how the Physical Agents Directive in relation to whole body vibration will impact on the shipbuilding and ship repairing industry. Mr Sykes advised that as whole body vibration relates primarily to the use of vehicles with seats such as cranes and fork lift trucks, the impact will not be extensive. There is however, a Contract Research Report (335/2001) *Use of seating to control exposures to whole body vibration*. This tested 67 conventional seats and 33 suspension seats to determine the benefits they had. It is available from HSE Books (ISBN 0717620093) or the HSE web site. There followed discussion on exposure levels and measuring whole body vibration. Mr Sykes reminded members that the exposure limits/action levels for WBV were still subject to agreement but might be set either as 8 hour reference levels or vibration dose values.

Hand arm vibration levels will be measured on 3 axes rather than the dominant axis and so levels will be different. Consequently, the proposed action limit of  $2.5 \text{ ms}^2$  (measured using the proposed new method) actually equates to  $1.8 \text{ ms}^2$  when measured using the existing method. Members were advised to ascertain what levels are in their own yards to know what action needs to be taken, before the Directive is implemented.

Mr Sykes advised members that the next physical agent likely to be subject to a Directive will be optical radiation.

Mr Watson informed the members of a draft Directive in relation to organostannic compounds. This proposes to prohibit the use of TBT based antifoulants on all craft intended for use in a seaway, or an inland waterway or lake. It is at an advanced stage of drafting and it is proposed that the provisions of the Directive are to be implemented by 1 January 2003. Water craft in use on that date treated with TBT anti-foulants are not to be placed on the market or used after 31 December 2007 unless the anti-foulants are removed or coated with an effective barrier.

## **6. SSA HEALTH AND SAFETY GUIDANCE**

Graham Watson presented paper 43/B on the review and rationalisation of SSA guidance in light of recent legislative changes. He recapped on the review undertaken at the last meeting of guidance notes 1-6.

Mr Watson distributed a costing paper produced by Mr Nick Granger of the SSA (enclosed for those members not present). Mr Granger expanded on the paper detailing the options available for obtaining the SSA guidance using new communication technologies. After discussion it was agreed that the Guidance Notes would be re-keyed as it was essential that it be possible to amend the documents. Members agreed that the most beneficial format would be to have the documents on the SSA web site in a password protected area. Obsolete and general guidance notes would also be available on the web site in a separate section.

Members then reviewed the remaining SSA guidance notes in Volume 1.

SSA7 *Noise in ship building and repairing*, SSA 9 *Guidance on noise reduction in steel work repair* and SSA 5 Volume 2 *Reduction and control of noise and vibration in shipyards* were reviewed together as they addressed the same issues. It was agreed that the 3 guidance notes should be made easier to use by rationalising them into a single guidance note. It was also agreed that this should happen sooner rather than later and that waiting until the Physical Agents Directives have been implemented would result in too long a delay.

SSA 8 *Guidance on control of contractors* had been largely replaced by SSA 7 Volume 2 although it was felt that some of the annexes in SSA 8 e.g. the Contractors Checklist were potentially useful although they had not been included in the later guidance note. It was therefore proposed that SSA 8 be deleted and that when members reviewed SSA 7 Volume 2 consideration be given to adding on these annexes.

SSA 10 on the development and implementation of successful housekeeping was felt by Mr Watson to be a key piece of guidance. Accident statistics continue to show slips / trips and falls as a major cause of injury in shipyards. If the revitalising targets are to be met it is crucial that work is done in this area, the SSA guidance being an important tool in doing so. It was felt however, that this document was no longer a working document. The legislative references are out of date and the library of practical solutions at the back of the guidance has not been added to as was originally intended. It was therefore agreed that the guidance note would be redrafted. While the order of priority in which the guidance notes are redrafted can not be finally determined until the current review is finished it was suggested that this guidance note be the first to be redrafted.

SSA 11 *Guidance for shipyards on occupational health services* was reviewed. It was agreed that this required some updating and that at the same time examples of good practices could be included. Other issues that could be included were the problems that can sometimes be created by medical confidentiality and contracting in occupational health services. It was felt however, that redrafting the guidance note was a lower priority.

It was proposed that a working party would be set up for each guidance note requiring redrafting, although only one such working party would be on the go at any one time.

Mr Granger provided members with feedback on the recent Ship Repair and Conversion conference where the SSA stand displayed a poster raising awareness of the SSA guidance notes. A large number of leaflets providing additional details were also distributed.

## **9. BREATHING APPARATUS**

Mr Graham Watson asked Mr Lomas to provide further details of problems experienced in their yard concerning access being gained to confined spaces onboard ships whilst wearing conventional breathing apparatus. Mr Lomas had received a letter from the Local Fire Authority stating they could not guarantee the participation of fire-fighters entering confined spaces for rescue operations where there was a need to temporarily

remove BA. Mr Lomas had been informed that there are currently no national protocols for such a situation and that the decision as to whether BA would be removed would rest with the officer in charge at the scene. Members were advised to check the position with their own Local Fire Authority.

The secretariat welcomed Mr Les Jordan of Draeger who had been invited to highlight the types of breathing apparatus that they sell which may assist in obtaining access through a restricted opening. The Secretariat was not however endorsing the products sold by Draeger in preference to those sold by other companies. Mr Jordan referred members to a Home Office Bulletin TB1/1997 which provides fire authorities with guidance on procedures including the removal of BA. However, as it is only a guidance document Fire Authorities do not have to comply to it. He then gave details of types of breathing apparatus equipment that would fit through the minimum entry access of 22.5" or 575 mm.

Types of equipment included a Marine applications cylinder of 300 bar capacity with a breathing time of 43 mins. The PSS 500 unit is of a more compact design making access through restricted openings easier. Members were also shown a butterfly harness which was a combination unit in that it can be both connected to an airline and hold an air cylinder. In the event of problems occurring with the airline it can be disconnected and the air cylinder used instead. Systems not using compressed air but chemical oxygen which are easier to get into smaller access areas were also shown.

Mr Jordan mentioned that Draeger provide training for BA users and competent persons. Further information can be obtained by contacting Mr Jordan on 01670 352891 extension 289.

Members were advised that the Confined Spaces Regulations make it clear that emergency procedures must be in place before work commences regardless of the size of yard. The cost of putting emergency procedures in place must be taken into account when pricing for a job.

## **7. FALLS FROM HEIGHT**

At the last meeting reference was made to the SG4.00 publication "The use of fall arrest equipment" written by the National Access And Scaffolding Confederation. The Construction Sector was contacted to verify what their stance is in relation to this issue to ensure that a similar stance is adopted in relation to scaffold erection in shipbuilding and ship repair. The relevant Regulation is Reg 6 of the Construction (Health, Safety and Welfare) Regulations 1996 which requires measures to be taken to protect against the risk of falls, there is no exemption from this for scaffolders.

A two pronged approach is required - erecting scaffolding in a safe manner (i.e. using 3 boards and fitting adequate edge protection) and where there is a danger of falling, which in practice is most of the time, a harness needs to be worn and clipped on, except for when below the 2nd lift where there is not likely to be sufficient clearance for the fall arrest system to operate fully. While the construction Regs do not apply to

shipbuilding and repair under S2 (1) of the Health and Safety at Work etc. Act the same standards of safety can be required.

Mr Watson also informed members of some developments that he had been made aware of including a running line designed to go up with the scaffolding as it is erected. A firm in London has also developed a temporary edge protection system which is built on the edge protection of the lift below and is up in position before scaffolders start working on that lift reducing the need for a harness to be worn.

As the company for which Mr Strachan works includes a scaffolding division he was asked to provide a scaffolders point of view. He felt SG4 to be useful guidance which may change both methods of work and the philosophy of scaffolders. He mentioned that they have sometimes experienced problems in getting individual scaffolders to wear harnesses and clip on, this has led to disciplinary action and even dismissal.

Mr Watson made reference to paper SSHSCC/43/C introducing an Operational Circular advising on the inspection of energy absorbing lanyards made from webbing or rope. Members were advised to follow the guidance contained in the document.

Further advice was however sought on the competence required to inspect such lanyards. Mr Watson undertook to contact the author of the guidance to obtain the requested information.

*Action: Mr Watson*

## **8. HEALTH AND SAFETY COMMISSIONS STRATEGIC PLAN**

Mr Watson presented paper SSHSCC/43/D containing details of the Health and Safety Commission (HSC) Strategic Plan for 2001/2004 which sets out their strategic direction for health and safety activity in Great Britain for the next three years. This involves 8 priority programmes in areas where HSE activity can be most effective and where the greatest contributions to the Revitalising Targets can be made. The priority programmes include 5 priority topics: falls from a height and workplace transport, both of which are major causes of workplace deaths; slips and trips which are one of the main causes of lost time accidents; stress; and musculoskeletal disorders which are a major cause of occupational ill health. 3 priority sectors have also been identified: construction; agriculture and health services. In addition to the HSC priority topics, HSE's Field Operating Division (FOD) has identified 4 further priorities: asbestos; hand-arm vibration; asthma and noise.

A major consequence of the priority topics is that HSE will directing inspectors to look solely at these issues when conducting their visits to workplaces unless other concerns are raised locally for example by employees or Safety Representatives.

A full copy of the strategic plan is available on the HSE web site and is summarised in free leaflet Misc 319A. Comments on the plan are welcome and should be sent by e-mail to [robert.vaughan@hse.gov.uk](mailto:robert.vaughan@hse.gov.uk)

Stress will be a topical issue and will be looked at more proactively rather than by complaints or ill health reports. It was felt that managers need more guidance to deal with this issue and reference was made to a useful document produced by the

Engineering Employers Federation entitled “Managing Stress.” The full reference and how to purchase it can be found on the EEF website, which has a direct link from the Engineering and Utilities site on the HSE website.

## **10. ACCIDENT STATISTICS**

Mr Sykes introduced paper SSHSCC/43/E which contains details of accident statistics for the last 3 years in the shipbuilding/repair industry. Mr Sykes commented that last year it looked as if the figures would continue to show a move in the wrong direction and sadly the incidents rates had indeed risen. In addition the gap between the shipbuilding/repair industry and manufacturing as a whole has increased. The proportion of major injuries has also increased. The main causes of accidents are slips, trips and falls and struck by which represent over half of the major injuries over the last 3 years.

Members were asked to comment on the accident statistics for their yards. It was stated that whilst there has been an increase in claims for compensation following accidents at work, most members had in fact experienced a decline in major injuries etc. Whether it would be possible to identify the yards who are giving rise to the increased incidence rate was discussed.

Members were asked to look at their own yard’s accidents, in particular struck by and to consider what action can be taken to improve the overall performance of the industry

## **11. REVITALISING**

Mr Clisby provided members with a presentation outlining a behaviour based approach to health and safety implemented at Babcock Engineering Services (BES) Rosyth. This was introduced to further reduce their accident statistics which had reached a plateau and to try and get beyond employees simply being told to take more care following an accident. The approach followed builds on that outlined in HSG48 “Reducing error and influencing behaviour” and involves analysing in behavioural terms what an employee was doing when they were injured. This seeks to establish what employees need to do to avoid injury by identifying the key behaviours that cause accidents i.e. the critical behaviours. BES identified 5 types of critical behaviour which had contributed to 56% of their accidents. By providing line managers with information on what the critical behaviours were they were then in a position to take effective preventative action. For example, in relation to cutting injuries they identified that most of the injuries were associated with the use of stanley knives. This then put them in a better position to reduce this type of injury for example by using safer alternatives to stanley knives. They also identified that 14% of their accidents involved eye and face injuries, as a result they introduced an eye protection programme where by eye and face protection has to be worn when afloat and when grinding, which together accounted for 50% of such injuries. In total they identified that 95% of their accidents could be attributed to unsafe behaviour.

Largely as a result of adopting the behaviour approach to safety BES Rosyth reduced their total accidents by 23% against a target of 10%. An accident rate of 16.8 was also

recorded against a target of 19. Mr Clisby circulated copies of the BES (Rosyth) annual report for 2000-1 which gave further information about targets and monitoring of trends.

Mr Clisby was thanked for his informative presentation. Any members wishing further details can contact Mr Clisby at BES.

## **12. BLASTING WITH SILICA SAND**

Mr Watson presented paper SSHSCC43/A which introduces Operational Circular 273/18 relating to COSHH and the prohibition on the use of sand or other substances containing free silica for blasting of articles. Confusion sometimes arising as to how the prohibition applies to the wet blasting of ships. The prohibition relates to the abrasive being propelled by a blast of compressed air or steam. With wet blasting in many cases compressed air is used to create the necessary pressure and as a result it is also subject to the prohibition. However, even if compressed air is not used Regulation 7 of the Control of Substances Hazardous to Health Regulations 1999 requires less hazardous alternatives to be used instead. HSE's Health Unit in Edinburgh will be commissioning research into wet blasting and the blasting apparatus used, to seek to provide further clarity to the prohibition. Members were asked for their thoughts on the prohibition, generally it was not felt to be an issue due to the lack of any body wanting to use sand as an abrasive.

## **13. STANDARDS FOR PERSONAL PROTECTIVE EQUIPMENT**

Mr Watson presented paper SSHSCC/43/F providing details of Operational Minute (OM) 2001/120 which outlines the British Standards for personal protective equipment. Due to the length of the OM a complete copy of the document was not circulated to every member however, any member wishing a complete copy can obtain one from Mr Watson.

## **14. NEW GUIDANCE**

Mr Watson gave details of new guidance produced by HSE (enclosed for members not present at meeting). All publications including Consultative Documents can be obtained from HSE Books, [www.hsebooks.co.uk](http://www.hsebooks.co.uk). Tel 01787 881165. Health and safety guidance can also be obtained from the HSE Direct web site at [www.baldwin.butterworths.co.uk/search/index.htm](http://www.baldwin.butterworths.co.uk/search/index.htm)

## **15. NEWS ROUND UP**

Mr Watson informed the members of HSE's public register of Enforcement Notices which contains details of Notices from 1 April 2001. Notices will be kept on the HSE web site for 10 years and then deleted.

When British Standard BS 5304: 1988 - Safety of Machinery was withdrawn it was felt that the guidance it contained was too useful to lose and so the British Standards

Institute reissued it as a Public Document (PD) 5304: 2000 Safe use of Machinery. This provides advice on the basic principles of safeguarding existing machinery. The PD does not have HSE's commendation as BS 5304: 1988 did as some of the information is out of date, for example the advice on electrical control systems does not reflect modern practice. However, it remains useful as general guidance on safety standards.

No ship or boat yards had been prosecuted since the previous SSHSCC, instead Mr Watson gave summaries of two prosecutions that had taken place of relevance to shipbuilding and repair. A scrap metal processor had been fined £200,000 after an employee was killed whilst maintaining a machine. A large metal plate was being lifted however, the lifting method used was different to the one that was meant to have been used. Checks were never made to ensure that the correct lifting method was used. A failure to use correct lifting techniques has featured in a number of accidents in shipyards discussed at previous SSHSCC meetings. This prosecution illustrating what the potential implications of this can be.

Contractors were fined £20,000 under S3(1) of the Health and Safety at Work Act following an accident where a subcontractor's employee received an electric shock. A permit-to-work had been issued for the work but no effort was made to ensure that the terms of the permit were followed. Permit-to-works are commonly used in shipyards, the prosecution case highlighting the importance of ensuring they are correctly followed. Members can obtain guidance on permit-to-works for electrical work in "Electricity at work: safe work practices" HSG 85.

## **16. ACCIDENTS**

Mr Watson gave details of accidents that have been investigated by HSE since the last meeting.

## **17. ANY OTHER BUSINESS**

Mr Lomas of DML thought members may be interested to know that the natural gas pipelines in DML are defined as a gas distribution system and as such are subject to requirements of the COMAH Regulations. However, as DML does not have residential premises within the yard they can apply for an exemption from the requirement for a safety case. To apply for an exemption does though involve preparing what is in effect a safety case albeit this will be a one off exercise.

Mrs Nicholson of BAE Systems informed the members that Mr Benny McGoogan would be leaving the company for pastures new. The secretariat and the members wished to record their thanks to Mr McGoogan for his hard work over the years and wished him best wishes for the future.

Ms Rosi Edwards informed members that she is to be moving to a different HSE Division and this would be her last Consultative Committee meeting. She said that she had been impressed by members' commitment to sharing good practice and by the way membership reflected all those involved in the industry so that when there was a problem there was usually someone with a solution. She had greatly enjoyed chairing

the committee - thanks both to the members and to the efficient and enthusiastic secretariat. Members thanked her for her time and consideration whilst chairing the meetings.

## **18. DATES AND VENUES**

The meetings taking place in 2002 will be:

17 April 2002 - BAE Systems (Marine) Ltd, Glasgow

18 September 2002 - DML, Plymouth

4 December 2002 - Newcastle upon Tyne (exact venue to be arranged)