



**DEVON &
SOMERSET**
FIRE & RESCUE SERVICE



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Your ref : Regulation 28 Report
Our ref : NM/CB
Website : www.dsfire.gov.uk

Date : 27 July 2016
Please ask for : Area Manager Manning
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Dear Mr Meadows,

I am writing in response to your Regulation 28 report to prevent future deaths in respect of Stephen Alan HUNT of Greater Manchester Fire and Rescue Service dated 8 June 2016.

Devon and Somerset Fire and Rescue Service (DSFRS) has carefully considered the report and your matters of concerns that are expressed in questions 1 - 7 posed to all individual fire and rescue services. Our responses to these concerns are detailed in the table below.

Yours sincerely


[REDACTED]
Area Manager

Question no.	Coroners Suggestion	Current Situation within DSFRS	Proposed action	Time scales
1	<p>It is suggested that all Fire and Rescue Services (FRS's) should consider the implementation of measures to reduce the risks associated with the physiological affects of working in a hot environment. In particular consideration should be given to:</p> <ul style="list-style-type: none"> • Duration of wears under breathing apparatus; • Having regard to all relevant factors including, for example the weather, previous exertions of BA teams and individual circumstances; • Training and guidance for all operational personnel to recognize the effects of heat both on themselves and on their colleagues and 	<p>All DSFRS operational staff complete an initial 10 day breathing apparatus course for new recruits and then a biennial 2 day requalification course. Within both of these courses the wearer welfare and the physiological effects of working in a hot environment are taught theoretically and discussed over a number of sessions.</p> <p>Throughout the period of the initial recruit BA course, an awareness of fatigue in themselves and their partners and the limitations of fire kit in allowing an appreciation of the ambient temperatures is constantly reinforced.</p> <p>BA wearer welfare information is included within the BA operational procedures policy as a duty of all members of the BA team, including the entry control officer, who shall be aware of the effect that the environment is having on the BA wearers and the need to withdraw if any unusual physiological or psychological stress or discomfort is experienced.</p> <p>DSFRS carry out practical fire behaviour training and also search and rescue training in</p>	<p>A new Breathing Apparatus training manual is in the process of being finalised prior to Service wide issue. This new manual has a dedicated chapter on heat induced illness that covers areas such as – heat and humidity, heat cramps, heat exhaustion, heat stroke and burns. Also included in this manual will be the welfare of BA wearers, section B-8, from the DCLG 'Operational guidance Breathing Apparatus' document, this includes ideal rest and recovery procedures.</p>	<p>To be issued late Summer 2016</p>

the appropriate steps to take upon such recognition, including withdrawal and self withdrawal.

- Training and guidance for all operational personnel to have the ability and confidence to ensure the withdrawal of others who may be adversely affected by heat whether by calling a BA emergency or otherwise appropriately.
- Training and guidance for all operational personnel to have the ability and confidence to withdraw themselves by whatever means appropriate including activating the ADSU.

a 3 storey purpose build large structure that allows the use of real fires. During these practical exercises the physiological effects of heat is experienced by the students. Safety briefs are always given and acknowledged by signatue, these briefs include the use of radial cooling and dressing down as means of regulating body temperature following a wear in a live fire exercise.

During the crew managers and watch managers requalification courses an exercise is carried out that requires the coordination and emergency rescue of a BA team whose ADSU is sounding.

On all of DSFRS BA courses the importance of self and team awareness and the need to consistently dynamically risk assess the environment is reinforced. There is a responsibility on the wearer to withdraw themselves or a team member if they feel it is necessary. Prior to attendance on any of the BA courses there is a requirement to complete an eLearning course, this course has a specific section concentrating on wearer welfare and the physiological effects of heat on the human body.

DSFRS has an operational assurance team who produce information that highlights best practice and the areas that may have a

detrimental effect on Fire Fighter Safety. This is achieved with the use of specific posters and supporting operational bulletins that are published electronically with a paper copy sent to every fire station in Devon and Somerset. The latest poster and bulletin (June 2016) discusses the avoidance of re-committing BA wearers without allowing adequate rest periods between wears, the need to allow the human body to cool and the importance of hydration. This guidance is taken from the 'National Operational Guidance for Breathing Apparatus'.

The next operational assurance bulletin will include an article on BA wearer welfare and the need to set up an area adjacent to the entry control point that has facilities for radial cooling, drinking water, first aid and a rest area if possible. This reinforces the current procedure at the DSFRS BA school.

2 It is suggested that all FRSS should consider the implementation of measures to reduce the risks associated with the loss of communications at operational incidents. For example, to include safety control measures to ensure SA teams can be withdrawn from the risk area if needed.

Prior to entry into a building all BA teams are briefed utilising the 'RESCUE' acronym. This acronym was developed within DSFRS following the Shirley Towers report that expressed concerns over a lack of a consistent BA team brief. The 'E' is a reminder to confirm the emergency procedure. All BA teams are committed into a building with a hand held radio to allow communications to outside the building. There will be an emergency team stood by outside dependant on the scale of the incident and all operational personnel are issued with an acme thunderer whistle that is the standard evacuation signal and can be sounded by any individual on the fire ground. In the event that

DSFRS are aware that improvements in BA communications and Telemetry are rapidly being made. DSFRS has a programme of replacing all equipment on a managed basis. Once approved, the provision of BA equipment including telemetry and communications technology in the Service will be reviewed through procurement frameworks and all options considered.

communications with the BA team is lost the emergency team will be committed as a matter of course and this is covered in the BA eLearning package as mentioned in the answer to question 1.

DSFRS have an Urban Search and Rescue (USAR) capability, part of the equipment that they have includes a line communications system that could be used at a fire on the request of the officer in charge. This equipment would be able to be utilised at an incident within 60 minutes during normal working hours or within 90 minutes out of normal working hours.

A DSFRS incident command school middle manager assessment includes a declared assistance scenario with an ADSU sounding and the commitment of emergency teams required.

The incident command school will review their command assessment scenarios to include the potential to include a loss of communications with a committed BA crew.

Oct 2016

<p>3 It is suggested that all FRSS should undertake a review to ensure the adequacy of standard operating procedures, guidance and training of the handing over and taking over of roles at incidents to ensure all the key</p>	<p>It is recognised that a change of BA control staff may result in important information and decisions made not being passed on. Therefore, DSFRS are in the process of developing a log book for this purpose. The main command and control decisions taken at an incident will be recorded in an</p>	<p>DSFRS have developed a breathing apparatus briefing log. This is an equivalent of the command and control event and decision log, but it is BA specific. It is to be completed by the entry control officer or the entry control supervisor and provides ongoing information around the use</p>	<p>BA briefing log book and eLearning package to be issued late</p>
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<p>areas of information, including safety control measures, are captured and shared.</p>	<p>event and decision (E&D) log, risks and control measures are recorded using the Analytical Risk Assessment (ARA) process. All E&D logs and ARAs are explained and handed over at a change of command. This is in accordance with the National incident command guidance. All level 1, 2, 3 and 4 command and control officers within DSFRS are assessed biennially to ensure that they are still competent to perform the expected role. The assessment takes the form of a simulated incident utilising virtual reality software and role players to make it as realistic as possible. The E&D log and ARAs are part of this assessment.</p> <p>DSFRS also use the 'THEORY' acronym for verbal handover of command. This is taught extensively at the Incident Command School and is a key part of the incident command assessments and ensures no information is missed.</p>	<p>of BA and decisions taken. This log is to be reviewed and 'handed over' at any change of BA entry control officer or BA supervisor. A log will be implemented at each entry control point and therefore will be sector specific.</p> <p>An eLearning package will be provided to cover the issue and use of this new log book.</p>	<p>Summer 2016</p>
<p>4 It is suggested that all FRSS should ensure that significant hazards and any safety control measures are the responsibility of the incident commander and should be recorded within each sector,</p>	<p>DSFRS follow the national guidance for this process as described in 3 above. ARA's from each sector are collated in the command area by the incident safety officer, the information is then passed onto the fire commander and subsequently onto other agency silver commanders, as per the JESIP agreement,</p>	<p>DSFRS believe that the process, training and assessment for this area are suitable and sufficient and therefore require no further action.</p>	

<p>to ensure visibility to all on the fireground, and passed/copied for use by the incident commander/command team to assist on the analytical risk assessment.</p>	<p>during joint silver command meetings. The use of ARA's, safety officers and sector commanders is taught extensively at the DSFRS Incident Command School and is a key part of the incident command assessments.</p>
<p>5 It is suggested that all FRSS should undertake a review to ensure the adequacy of standard operating procedures, guidance and training in the appropriate use of thermal imaging cameras to include the limited extent to which they can be relied upon to measure ambient temperature.</p>	<p>DSFRS have a policy of there being 1 thermal imaging camera (TIC) per fire station due to the advantages they give when fire fighting and searching for casualties. On the initial BA courses there is structured theoretical input and practical exercises. TIC's are used at every opportunity during training and where appropriate BA instructors assist BA operatives in reading and interpreting the information gathered by the TIC. The limitations of TIC's and the insulation values of modern fire kit is a known phenomenon and therefore internal BA training includes to need to use water sprays as a judgement of temperatures within a compartment. The use, advantages and disadvantages of TIC's is to be included within the new BA training manual mentioned in question 1.</p> <p>In line with the management of equipment policy DSFRS are in the process of procuring new TIC's these are the latest generation and have the capability to record information being seen by the BA wearer. By the end of this financial year DSFRS will have purchased an additional 33 TIC's with an intention to equip every fire engine with this latest technology. This replacement programme will continue over a 4 year period.</p> <p>There is a current eLearning package but it is limited in its content. DSFRS will enhance this package to include the effective use, advantages, disadvantages and limitations of thermal imaging cameras.</p> <p>March 2017</p> <p>Oct 2016</p>

6	<p>It is suggested that all FRSS should undertake a review to ensure the adequacy of standard operating procedures, guidance and training in the deployment of aerial monitors to ensure the safety of any personnel within the risk area is not compromised.</p>	<p>DSFRS accept that this is an area for development, the current operator training explains about the use and setting up of a water tower but omits the dangers of applying water from an aerial monitor into a building where BA operatives are working.</p>	<p>Aerial appliance operator training manual to be amended explaining the importance of ensuring the safety of personnel in a building should they be requested to set up a water tower.</p> <p>All aerial instructors and operators will be informed of this change and asked to make themselves familiar with the additional section.</p>	<p>Sept 2016</p>
7	<p>It is suggested that all FRSS should undertake a review to consider the circumstances in which inspections should be carried out under section 7(2)(d) of the Fire and Rescue Services Act 2004</p>	<p>The current situation within DSFRS is that 7(2)(d) inspections are undertaken at premises known to present a higher than normal risk.</p> <p>Intelligence that allows a judgement to be made as to whether an inspection should be</p>	<p>An article will be placed in the next Service operational assurance bulletin highlighting the issues raised in this question.</p> <p>An incident command virtual reality assessment will be amended, or if necessary developed, that includes a scenario covering the use of an aerial water tower with internal fire-fighting taking place for all levels of incident command.</p>	<p>Oct 2016</p>
7	<p>It is suggested that all FRSS should undertake a review to consider the circumstances in which inspections should be carried out under section 7(2)(d) of the Fire and Rescue Services Act 2004</p>	<p>The current situation within DSFRS is that 7(2)(d) inspections are undertaken at premises known to present a higher than normal risk.</p> <p>Intelligence that allows a judgement to be made as to whether an inspection should be</p>	<p>DSFRS propose to provide enhance guidance to personnel on the identification of risk premises</p> <p>Strategic direction and premises type prioritisation will be given based on</p>	<p>Dec 2016</p>

made comes from;

- National incidents (DSFRS has just completed inspections of all High Rise premises)
- Operational Incidents
- Local knowledge of known high risk premises
- Information from other agencies
- Fire Protection inspections.

The process used to gather risk information is based on the National Provision of Risk Information System (PORIS), this information is then available to incident commanders via the mobile data terminals installed on fire appliances.

DSFRS routinely share premises risk information with neighbouring FRs's for any premises that are within a 10 kilometre distance from the County boundary.

local, regional and national intelligence, this process will be carried out annually as a minimum.

Enhanced training is to be provided to officers completing any 7(2)(d) inspections. April 2016

All operational personal will be provided with training to clarify what type of risk information is available and where it may be found while at an operational incident. April 2017