

AGENDA ITEM:

REPORT TO:	MERSEYSIDE FIRE & RESCUE AUTHORITY
DATE:	25TH JUNE 2009
REPORT NO.	CFO/158/09
REPORTING OFFICER:	ASSITANT CHIEF FIRE OFFICER EVANS
CONTACT OFFICER:	AREA MANAGER STEPHENS, EXTN. 4315
OFFICERS CONSULTED:	STATION MANAGER VOCE
SUBJECT:	FIREFIGHTING PERSONAL PROTECTIVE EQUIPMENT (PPE)

THERE ARE NO APPENDICES TO THIS REPORT

***A Glossary of Terms has been provided at the end of this report for your reference.**

Purpose of Report

1. To request that Members approve the recommendation of this Report relating to the proposed North West Region Fire & Rescue Service's (NWFRS) tender for the purchase of Firefighting PPE.

Recommendation

2. That the Authority:
 - (a) Consider the reasons for the proposed changes to improving the existing construction/specification for Firefighting PPE.
 - (b) Approve proposals to undertake a regional procurement exercise for the purchase of and initial issue of a Para Aramid PPE for operational staff of MFRS
 - (c) Grant delegated powers to the Chief Fire Officer to enter into an award of contract to the most economically advantageous tenderer, where it is considered that such bid is more economically advantageous than the National Integrated Clothing Contract procured through FireBuy
 - (d) Approve the procurement of an initial supply of 1,500 sets of PPE in Para Aramid material taking into account the 'pooled' approach for provision of PPE and financial assumptions within the report

Introduction & Background

3. In 2006 the NWFRS' entered into a collaborative tender for the purchase of fire tunics and over trousers. The five partners agreed a common specification with two colour options to provide the constituent FRS' with garments consistent with their existing range of PPE. The outcome was Navy Kermel for Cheshire, Greater Manchester and Merseyside and PBI Gold for Cumbria and Lancashire.
4. Both PBI Gold and Navy Kermel were specified, tested and manufactured to EN standard 469:2005 and at the time we were the first Service's in the UK to achieve this. The contract is due to expire in 2010. PBI Gold PPE is currently available through the National contract under the Integrated Clothing Project let through FireBuy. However, the costs are significantly higher than provided to FRAs under our current regional contract, and signing up to the national FireBuy contract entails a commitment for 16 years to buy all PPE under that national contract, whereas we are likely to be able to procure a regional contract on a more economic basis. Therefore the region is proposing to undertake a further regional procurement process for PPE, and to award a contract to the most economically advantageous bidder, and order PPE under such arrangements if more economically advantageous than the comparative FireBuy contract.
5. There are two main types of outer fire resistant (FR) fabrics currently used in the manufacturing of Firefighting PPE which are Para Aramid (PBI, PBO) and Meta Aramid (Kermel, Nomex) respectively. The consensus of opinion is that there should be no significant changes to the current design or construction of the garments, however it should retain the inclusion of the two colour options but be constructed of one single FR fabric – a Para Aramid.
6. The rationale underpinning this view is that Para Aramid fabrics are proven to provide a greater level of protection for Firefighters in extreme environments, such as those experienced in flash-over conditions.
7. Although the fabric still suffers from scorching, the inherent strength allows it to retain its integrity unlike Meta Aramids which becomes brittle and liable to flake off when subjected to movement. This could lead to areas of the garment becoming exposed and therefore offering limited or no further thermal protection to Firefighters.
8. This fundamental advantage over the Meta Aramid fabrics has lead to this joint decision and in anticipation both MFRS (two sets have been issued to Fire Behaviour Trainers at the TDA) and GMFRS are undertaking trials of the current specification of PPE, but using a dyed Navy PBI.

The PBI version of Para Aramid material has a natural gold colour and the trial garments are showing significant fading after only two washes. The natural colour is appearing to turn the PPE a green-blue colour. Should MFRS choose to continue with a Navy coloured outer, as the dying of PBI appears to be less than successful, this would have a major impact on the visual appearance of

our operational staff, even though the garments would still be affording them the highest level of protection.

9. In respect to the above and based upon acceptance of the rationale for choosing a Para Aramid FR Fabric, there are two options for the introduction of the natural gold coloured garment into MFRS, either:

- An initial issue of two sets of Firefighting PPE for each firefighter as with existing policies and procedures, or
- Consideration for the introduction of a “Pooled System”, whereby each station/location is allocated a wardrobe of PPE based upon a pre-determined sizing profile for the personnel at the specific locations. This has been introduced by a growing number of FRS’ and instead of the normal two sets per individual a factor of 1.5 is applied. This is the option recommended to Members

Assuming the Authority accepts the latter ‘pooled’ approach, the Service will be required to make an initial purchase of 1,500 sets of PPE (fire tunic and over trousers). This will provide for one complete set per individual plus a 50% reserve to provide resilience for laundering, repair, possible contamination etc. The only replacements required within the first two years will be for issue to new employees, as a result of mechanical damage or due to unforeseen wear and tear. The anticipated life of the garments is 40 laundry cycles however it can be reasonably concluded from past experience that the lifespan of the majority of the PPE will be 4 years.

Equality & Diversity Implications

10. Equality and diversity considerations are embedded into all procurement policies and the specification of all PPE embraces these policies to ensure that it is and remains fit for purpose for a diverse workforce.

Financial Implications & Value for Money

11. The existing contract price for a complete set of fire tunic and over trousers is £346 for PBI Para Aramid and £278 for Kermel version however it is anticipated that the price following the tender process may have increased by up to 25% when considering the current economic situation. Whilst the Service could procure Para Aramid PPE under the existing contract and pricing scheme, the new specification for the garments is considered to be of a higher standard than that available under the existing contract therefore this option has been discounted. The table below outlines the anticipated cost over a 4 year period assuming a cost per set of £433 for Para Aramid (the cost per set of Meta Aramid is anticipated at £346).

	2009/10	2010/11	2011/12	2012/13
Budget available (£'000)	240	240	240	240
Number of sets	1,500	0	500	500
Cost per set (£)	433	433	433	433
Total cost (£'000)	650	0	217	217
Additional budget requirement	410k	-240k	-23k	-23k

12. The additional expenditure on budget of £410k in the first year will be met from reserves however this will be offset by the saving of £240k in the second year which will be returned to reserves, as will the underspend from future years.
13. The net additional cost of the purchase of Para Aramid clothing is £170k which should be considered as an investment of £170 per Firefighter to significantly enhance their safety when undertaking firefighting operations. This will be funded from the modernisation reserve.

Health & Safety and Environmental Implications

14. The introduction of Para Aramid clothing will provide MFRS operational personnel with the highest level of protection when undertaking firefighting operations and will significantly improving their Health, Safety and Welfare.

Contribution to Achieving the Vision:

“To Make Merseyside a Safer, Stronger, Healthier Community”

15. The provision of firefighting PPE constructed of Para Aramid FR Fabric will result in greater levels of protection for Firefighters and reduce the likely impact upon their safety and wellbeing should they be exposed to the extreme temperatures and or conditions associated with a flash-over whilst undertaking firefighting operations.

BACKGROUND PAPERS

None pertinent to this report

***Glossary of Terms**

FR	– Fire Resistant
PBI	– Polybezimidazole Fibre
PPE	– Personal Protective Equipment
MFRS	– Merseyside Fire & Rescue Service
NWFRS	– North West Fire & Rescue Services