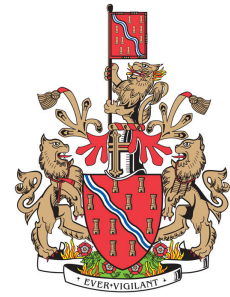


# Public Document Pack



GREATER MANCHESTER  
FIRE AND RESCUE AUTHORITY

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Donna Hall – Clerk

Gwynne Williams -  
Deputy Clerk & Authority Solicitor

Your Reference

Our Reference GW/DP

Contact Donna Parker, Democratic Services Manager  
Email: [parkerd@manchesterfire.gov.uk](mailto:parkerd@manchesterfire.gov.uk)

Date 9 January 2013

To: Members of the Emergency Response Committee  
Councillors John O'Brien (Chairman), Lynda Byrne (Vice-Chair), David Acton, John Bell, Grace Fletcher-Hackwood, Derek Heffernan, Tommy Judge, Iain Lindley, Alan Matthews, Wendy Meikle, Shelia Newman, Shaun O'Neill, Fred Walker, Lisa Walker and Steve Williams

PLEASE NOTE ALL MEMBER OF THE AUTHORITY ARE INVITED TO ATTEND THIS MEETING

## Group Meetings:

Conservative	Conservatory	10.00 a.m.
Labour	Stockport Room	10.00 a.m.
Liberal Democrat	Wigan Suite	10.00 a.m.

Dear Member,

## **EMERGENCY RESPONSE COMMITTEE - 17 JANUARY 2013**

There will be a meeting of the Emergency Response Committee on Thursday, 17th January, 2013 commencing at 10.30 am in the Bury Suite, Training and Development Centre, Cassidy Close, Manchester, M4 5HU. The agenda is as follows:

### **1 Apologies for Absence**

### **2 Minutes of Previous Meeting** (Pages 1 - 4)

To confirm the Minutes of the Meeting held on 25<sup>th</sup> October 2012.

### **3 Declarations of Interest**

Members are requested to consider whether they have any interest to declare in relation to any item of business on the agenda.

### **4 Urgent Business (if any)**

To be accepted at the discretion of the Chairman of the Committee.

### **5 Emergency Response - Development Goals Progress** (Pages 5 - 10)

Report of the County Fire Officer & Chief Executive

- 6 Annual Health and Safety Performance Report** (Pages 11 - 34)  
Report of the County Fire Officer & Chief Executive
- 7 DV26 - Future Firefighting Update and Demonstration** (Pages 35 - 40)  
Report of the County Fire Officer & Chief Executive

Yours sincerely,

A handwritten signature in black ink that reads "Jenna Hall." The signature is written in a cursive style with a large initial 'J' and a period at the end.

Clerk

## **MINUTES OF A MEETING OF THE EMERGENCY RESPONSE COMMITTEE**

**HELD ON 25th OCTOBER 2012**

### **Present:**

Councillor John O'Brien (Chairman), Councillor Lynda Byrne (Vice-Chairman),  
Councillors David Acton, John Bell, Grace Fletcher-Hackwood,  
Derek Heffernan, Tommy Judge, Wendy Meikle, Shelia Newman,  
Shaun O'Neill, Fred Walker and Steve Williams

Also in Attendance: Paul Argyle (Director of Emergency Response), Sean Booth (Area Manager - Head of Operational Training), Andy Brookes (Area Manager - Head of Resource Management), Tony Hunter (Area Manager - Head of Operational Policy and Performance), Donna Parker (Democratic Services Manager), Warren Pickstone (Area Manager - Head of Resilience and Planning) and Gwynne Williams (Deputy Clerk and Authority Solicitor)

### **9. APOLOGIES FOR ABSENCE**

Apologies for absence were received from Councillors Iain Lindley and Lisa Walker.

### **10. MINUTES OF PREVIOUS MEETING**

The Minutes of the Meeting held on 12<sup>th</sup> July 2012 were approved and signed as a correct record.

### **11. DECLARATIONS OF INTEREST**

There were no Declarations of Interest received.

### **12. URGENT BUSINESS (IF ANY)**

There were no items of urgent business submitted.

### **13. EMERGENCY RESPONSE - DEVELOPMENT GOALS PROGRESS**

Consideration was given to a report of the County Fire Officer and Chief Executive which set out the current status and progress made against the Corporate Plan development goals for which the Emergency Response Directorate had responsibility since the last meeting.

Members were advised that 'Development Goal 9 – Revise the current Rostering for Duty arrangements to reduce the numbers of staff needed to operate the system and create significant efficiencies, had now concluded and would be removed from future reports'.

Members were advised that the next meeting of the Committee on 17<sup>th</sup> January 2013 would be devoted to 'Development Goal 26 – Research, development and implementation of new or revised firefighting procedures, equipment, and techniques with the aim of improving firefighting capabilities and improve public and firefighter safety'. The meeting would take place at the Training and Development Centre in Manchester which all Members of the Authority would be invited to attend.

Recommended: That:

1. The content of the report and comments raised, be noted.
2. The next meeting of the Committee on 17<sup>th</sup> January 2013 be devoted to Development Goal 26 and held at the Training and Development Centre in Manchester.
3. All Members of the Authority be invited to attend the next meeting of the Committee on 17<sup>th</sup> January 2013.

#### **14. DEVELOPMENT OF EMERGENCY RESPONSE DIRECTORATE OPERATIONAL TRAINING FACILITIES**

Consideration was given to a report of the County Fire Officer and Chief Executive which provided an update on the Operational Training and Development facilities within GMFRS following on from an approved capital bid of £1.4 million capital which the Authority made in January 2011.

Sean Booth, Area Manager for Operational Policy and Procedure and Training and Development, was in attendance and gave a presentation on the progress made to date in the introduction of improved Operational Training and Development facilities across GMFRS. The presentation included footage of recently built facilities which were now in use and simulations of the next phase of facilities due to be delivered during this financial year. It was reported that since implementation a saving of approximately £250,000 had been made by using the new In-House Training facilities rather than sending firefighters and incident commanders to external training providers such as the Fire College.

Members asked a series of questions on the content of the presentation regarding future income generation possibilities and the training site at Manchester Airport that was answered accordingly.

The Chairman took the opportunity to thank Sean Booth, Area Manager for the informative presentation.

Recommended: That content of the report, presentation and comments raised, be noted.

## **15. HIGH RISE FIRE-FIGHTING**

Consideration was given to a report of the County Fire Officer and Chief Executive which provided information on the work undertaken to ensure that equipment, training, procedures and response to incidents involving High Rise buildings, was proportionate and appropriate to maintain the safety of the public and operational crews within Greater Manchester.

It was reported that the recommendations from the investigation into a High Rise fire that claimed the lives of two Firefighters in 2010 and the findings of health and safety management inspections carried out by the Health and Safety Executive (HSE) in 2009/10, have been progressed through the High Rise Task and Finish Group. Members were advised of the work which had been undertaken by the Group to reduce the risk of High Rise incidents including research of new firefighting techniques and training facilities, the combination of both would assist in ensuring that Operational Crews remained effective, safe and in a state of operational readiness.

Members had a detailed discussion on the number of high rise buildings in the Greater Manchester area. The Director of Emergency Response commented that intelligence had been gathered on all high rise properties within the area and input onto the Operational Intelligence System that was accessed by the Mobile Data Terminal on appliances to assist crews when attending incidents.

The Chairman requested that a session on 'Mobile Data Terminals' take place at the rise of a future meeting of the Committee.

Recommended: That:

1. The content of the report and comments raised, be noted.
2. The continuing activities to support public and Firefighting safety, be noted.
3. A session on 'Mobile Data Terminals' be arranged to take place at the rise of a future meeting of the Committee.

## **16. OPERATION COUNTY GUARD**

Consideration was given to a report of the County Fire Officer and Chief Executive which provided an update on the Operation County Guard Business Continuity Plan.

It was reported that in response to legal and governmental expectations, the Service had been reviewing and revising its Business Continuity Management (BCM) arrangements. The review resulted in revised planning assumptions for business continuity during industrial action and subsequent changes to the Operation County Guard Business Continuity Plan.

The plan provided a framework, products and an implementation plan, which was designed to satisfy the Fire and Rescue Authority's statutory duty to provide services during business disruption that were reasonably practicable in the circumstances that prevail at the time to prevent loss of life and injury.

In addition, the report highlighted the proposed transfer of the plan from the County Guard Task and Finish Group to the generic Business Continuity Management (BCM) Group following the completed production of the framework, products and implementation plan.

Recommended: That:

1. The content of the report and comments raised, be noted.
2. The statutory duties of the Fire and Rescue Authority for ensuring business continuity, be noted.
3. The transfer of the County Guard Plan to the Business Continuity Management Group, be noted.

CHAIRMAN

# Agenda Item 5

GREATER MANCHESTER FIRE AND RESCUE AUTHORITY

EMERGENCY RESPONSE COMMITTEE

17 JANUARY 2013

Subject: EMERGENCY RESPONSE – DEVELOPMENT GOALS  
PROGRESS

Report of the County Fire Officer & Chief Executive

Report Author: Paul Argyle, Director of Emergency Response –  
Tel 0161 608 4016 Email argylepa@manchesterfire.gov.uk

## PURPOSE OF THE REPORT

This report sets out the current status and progress made against the Corporate Plan development goals which the Emergency Response Directorate has responsibility for.

## EXECUTIVE SUMMARY

1. This report provides the Committee with an overview of the work carried out towards the Corporate Development Goals.

## INTRODUCTION/BACKGROUND

2. In line with Corporate Governance arrangements, the Quarterly performance review has been completed. A full summary of directorate activity and status updates for all the Corporate Development Goals have been discussed at the relevant performance meetings. The following section provides an update on each of the Development Goals that the Emergency Response Directorate has responsibility for.

## CURRENT POSITION

Development Goal 6 - Scope the introduction of special rescue stations to focus our expertise and pursue excellence in service delivery, then make recommendations and implement as required.

3. The implementation plans aim is to have two Technical Response Units (TRU), one at Ashton-Under-Lyne and one at Leigh Fire station.
4. Two open evenings, were held, one on the 12<sup>th</sup> and another on the 15<sup>th</sup> of November 2012, both of these events were very well attended. The open evenings were to enable colleagues who may wish to apply for the teams, to gain a greater understanding of the TRU project and proposed roles.

5. Discussions are on-going between the Project Team Sponsor, Human Resources and Members of the Corporate Leadership Team regarding the possible crewing arrangements and relevant Terms and Conditions for the TRU roles.

Development Goal 7 – Review the current arrangements for Urban Search and Rescue, and their relationship with international search and rescue capabilities, recommend improvements and implement as required.

6. The implementation of the TRU will encompass the requirements of this Development Goal. Draft rosters have been developed to include the Urban Search and Rescue and International Search and Rescue (USAR/ISAR) requirements.

Development Goal 8 – Review the fleet of special appliances, make recommendations for improvements and implement as required.

7. A Special Appliance Programme Board has been established to oversee the individual projects which are:
  - The provision of a purpose built Wildfire Unit.
  - The provision of a purpose built Small Incident Unit.
  - The relocation of a number of Special Appliances.
  - The progression of the Incident Command Unit replacement.
8. The board has representatives from all the departments that are impacted upon by the projects, with those representatives consulting with the Operational Crews.

Development Goal 9 – Revise the current Rostering for Duty arrangements to reduce the numbers of staff needed to operate the system and create significant efficiencies.

9. At the commencement of the new duty system seventy-four additional roster lines were put in place to assist in managing the transition and provide some capacity to support corporate initiatives. The additional roster lines at Trafford borough will be removed by the end of January 2013 and several other lines have been removed from Cheadle, Philips Park, Stalybridge and Chadderton.
10. Work has started at Bury to remove the remaining six additional roster lines early in the New Year. The project remains on track to achieve the necessary staff reductions within the allotted timescales and as such produce the required budgetary savings.
11. Following the recent Watch Managers Gateway process the vacancies that have been held within Prevention and Protection will now start to be filled and this will accelerate the reductions in our operational establishment levels to those agreed within the Corporate Plan.



Development Goal 10 – Introduce appliances more suited to dealing with smaller incidents.

12. The interim vehicles have been further refined, following feedback from Operational Crews and the Fire Brigades Union.
13. The trial utilising the current fleet of 4x4's will recommence in Quarter 4 2012/13, with learning from their use fed into the project.
14. A bid has been submitted for capital funding and discussions have taken place during this Quarter on the feasibility of realigning some of the capital budget for appliance replacement to include the provision of a purpose built Small Incident Unit (SIU).

Development Goal 11 – Vary Crewing arrangements on identified fire stations to ensure they are fit for purpose and meet the risk and demand levels identified in each area.

15. A review group has been evaluating and researching the non-SDS systems in GMFRS (and across other FRS's) and what their current status is; and in particular consideration has been made to any threats or opportunities with regard to each system in place. Learning and proposals will be presented to the Corporate Leadership Team (CLT) in January 2013.
16. Since the last update we have been working with HR colleagues to consider the current Terms and Conditions of those staff working at the current non-SDS stations. The current arrangements are fragmented and do not maximize the efficiencies of the systems deployed at each location and as such we would aim to provide consistency with regard to working times, allowances, and work routines, wherever possible.

Development Goal 12 – Review our arrangements for Incident Command, make recommendations and implement as required.

17. The Incident Command Review document was submitted for the consideration of Principal Officers on 25 September 2012.
18. Following feedback, changes are anticipated before it is submitted to the Corporate Leadership Team in Quarter 4 2012/13.
19. A draft Policy for the introduction of an Incident Command Academy has been developed. The Academy is intended to deliver many of the outcomes of the Incident Command Review in relation to training and improving the knowledge, skills and understanding of Operational staff. The Policy also covers the requirements for assessments of competence to provide the assurance that we are as proficient as possible in the area of Incident Command.

Development Goal 14 – Work with people with the right skills and attitude to deliver high quality, value for money services in a positive environment for everyone

20. The annual Training Needs Analysis has been completed with the bulk of next year's Operational Training delivery being in support of the various development goals (in particular Development Goal 12 – Incident Command review and Development Goal 26 – Future Firefighting).
21. A review of the Operational Training Department is underway, utilizing our recognized change management protocols, with a view to changing some employee terms and conditions to support seven day working. This review aims to provide a more efficient and effective service to operational staff who also provide seven day cover.

Development Goal 20 – Provide new training facilities to improve real fire training for our firefighters.

22. A Memorandum of Understanding between Manchester Airport, Cheshire FRS and Greater Manchester FRS has been signed which has enabled us to progress the delivery of our second Compartment Fire Behavior Training (CFBT) site at Manchester Airport. The Window unit (producing high smoke volumes) has been moved from Oldham and a storage cabin has been installed. The CFBT units and the Classrooms, changing facilities etc. which are being jointly funded by the FRS partners are now in production and the whole site is on target to be open for use in April 2013.
23. The groundwork for the multi-rig at the Training and Development Centre (TDC) started in November 2012 and the units are currently being fabricated by the supplier. The whole site is on target to be open for use in April 2013.
24. A draft Outline Business case has been developed recommending the purchase of a new Operational Training Site.

Development Goal 24 – Continue to review and develop our business continuity arrangements to ensure we remain well placed to deal with disruption to our services.

25. The Development Goal contains a number of components which are owned by a number of Directorates, for example ICT Resilience owned by the ICT Directorate and Recall to Duty owned by Emergency Response. Therefore, this Development Goal is currently being administered through the Business Continuity Team structure, overseen by the Project Manager.

26. To date there has been the adoption of the County Guard Plan and Audit of the Directorate Business Continuity Plans and a review of the Emergency Fuel Plan.

Development Goal 26 - Research and, where appropriate, develop and implement new or revised firefighting procedures, equipment and techniques with the aim of improving our firefighting capabilities and public and firefighter safety.

27. A detailed progress to date is provided within a separate paper on the agenda entitled "Future Firefighting Update and Demonstration".

#### OPTIONS/ALTERNATIVES

28. N/A

#### CONSULTATION

29. N/A

#### RESOURCES IMPLICATIONS

30. a) Financial and Procurement – Not applicable.  
b) Human Resources – Not applicable.  
c) Legal and Constitutional – Not applicable.  
d) Health and Safety – Not applicable.  
e) Sustainability – Not applicable.

#### RECOMMENDATION

31. Members are recommended to note the content of this report.

STEVE McGUIRK  
COUNTY FIRE OFFICER  
& CHIEF EXECUTIVE

There are no background papers to this report within the meaning of Section 100D of the Local Government Act 1972.

S. McGuirk  
(Proper Officer)  
07.01.13

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# Agenda Item 6

GREATER MANCHESTER FIRE AND RESCUE AUTHORITY

EMERGENCY RESPONSE COMMITTEE

17 JANUARY 2013

Subject: ANNUAL HEALTH AND SAFETY PERFORMANCE REPORT

Report of the County Fire Officer & Chief Executive

Report Author: ACFO Peter O'Reilly, Director of Prevention & Protection  
Tel. 0161 608 4004 Email o'reillyp@manchesterfire.gov.uk

## PURPOSE OF THE REPORT

The purpose of this report is to inform Members of the content of the Annual Health and Safety Performance Report, progress made in improving our overall health and safety performance, and to outline where further work will enable continued improvement. Members are also advised regarding future changes to reporting of Health and Safety performance. A copy of the performance report is attached as Appendix A.

## EXECUTIVE SUMMARY

1. This report sets out the improvements that we have made in health and safety performance during the last financial year and overall trends for the last six years. It shows significant reductions in the number of accidents involving all staff groups and at operational incidents. It also recognises that there is a risk of accident and injury rates associated with our training activities, failing to keep pace with improvements in other areas, as our training facilities and delivery become more realistic.
2. It identifies a number of areas where performance during the last year has not improved in line with longer term trends and makes recommendations that are aimed at improving performance in these areas. These recommendations will form the basis of an improvement plan which will be delivered during the latter part of 2012/13.

## INTRODUCTION/BACKGROUND

3. Historically the Health and Safety Support Section have produced an annual report outlining how the Service has performed with regard to the number of accidents and injuries, their causation and consequences for the Service in terms of lost working time.
4. The report identifies that in practically every area our health and safety performance has improved. However there are a small number of

areas where performance last year did not compare favourably with the long term trend.

5. As the report contains management information that facilitates decision making regarding the future focus of activity, and direction to improve performance, this will be the last time that performance will be reported in this way. Future health and safety performance will be reported through the quarterly Performance Reports to Members and the Legal Activity report to the Prevention and Protection Committee.
6. Please note that this report was presented to the Prevention and Protection Committee on 8 November 2012.

## PERFORMANCE

7. The attached report sets out our health and safety performance for 2011/12 and shows a continuing improvement in many areas over the last five years, including:
  - 45% reduction in accidents
  - 44% reduction in the number of days lost due to accidents
  - 48% reduction in events that are reportable under RIDDOR
  - 24% reduction in accidents involving non uniformed support staff
  - 58% reduction in accidents at incidents
  - 7% reduction in accidents during training
8. The recommendations from the report are listed below and reflect both the need to improve in these areas and to continue to drive performance improvement.
  - Design and deliver a health and safety campaign focusing on the following key areas to further reduce the number and impact of accidents and injuries:
    - stepping on/off appliances
    - fall/slip/trip
    - handling (not lifting)
    - struck by/against
  - Carry out further analysis of accidents and injuries occurring at 'other' locations to identify any trends regarding the type of work activity being undertaken, whether or not any specific work groups are involved and to identify whether or not there is a disproportionate number of accidents and injuries involving non-operational staff.

- Introduce new reporting systems that provide line managers with immediate information relating to accidents and injuries in their area of responsibility, enabling local management and accountability for health and safety matters.
- Through the new reporting systems above, introduce reports that overtly include the determination and identification of individual or collective responsibility for accidents and injuries.
- Closely monitor levels of accidents and injuries arising from training activities to ensure that appropriate control measures are being identified, and implemented, that maintain realism whilst reducing the potential for accidents and injuries.
- Design, deliver and monitor a campaign to further improve near miss reporting.

## RECOMMENDATIONS

9. Members are recommended to:
  1. Note the contents of this report and the attached performance report.
  2. Support the implementation of the recommendations within the performance report.

STEVE McGUIRK  
COUNTY FIRE OFFICER  
& CHIEF EXECUTIVE

There are no background papers to this report within the meaning of Section 100D of the Local Government Act 1972.

S. McGuirk  
(Proper Officer)  
4.1.13

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# Prevention & Protection Directorate



Greater Manchester Fire and Rescue Service

## Health & Safety Performance

1<sup>st</sup> April 2011 – 31<sup>st</sup> March 2012

GREATER MANCHESTER  
FIRE AND RESCUE SERVICE



# Health & Safety Performance

## Foreword

This document gives an overview of our health and safety performance for the year 2011/12, together with a breakdown of accident related statistics for the last 5 years. It also provides an indication of overall performance over the 14 year period from 1997/98 to 2011/12.

## Trends

The total number of accidents over the last 5 years has decreased by 45%

Since 1997/98 accidents have decreased by 79%

- In this period the total number of accidents has reduced from 680 in 1997/1998, to 142 in 2011/2012, with a reduction being experienced each year.
- The number of accidents reportable to the Health and Safety Executive (HSE) under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR) has fallen to 28 compared to 123 in 1997/1998 a 77% reduction.

The number of lost days due to accidents has decreased by 93% over the same period

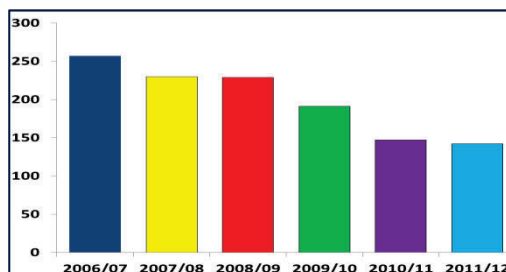
- The number of 812 days lost to accidents in 2011/2012 is a 45% reduction on last year's figure of 1,469.
- The total number of days lost due to accidents has plummeted from 11,773 in 1997/1998 to 812 in 2011/2012 representing a highly significant decrease of 93% over the 14 year period.



# Total number of on duty injuries

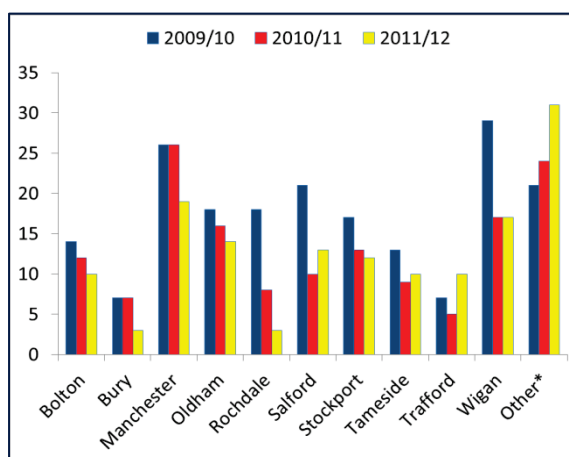
## Total number of on duty injuries

Period	Total	Variation from previous year	% Variation from 06/07
2006/07	257		
2007/08	230	- 27	▼
2008/09	229	- 1	▼
2009/10	191	- 38	▼
2010/11	147	- 44	▼
<b>2011/12</b>	<b>142</b>	<b>- 5</b>	<b>- 45%</b> ▼



## Number of on duty injuries by Borough

Borough	09/10	10/11	11/12	Variation
Bolton	14	12	10	- 2 ▼
Bury	7	7	3	- 4 ▼
Manchester	26	26	19	- 7 ▼
Oldham	18	16	14	- 2 ▼
Rochdale	18	8	3	- 5 ▼
Salford	21	10	13	3 ▲
Stockport	17	13	12	- 1 ▼
Tameside	13	9	10	1 ▲
Trafford	7	5	10	5 ▲
Wigan	29	17	17	- ●
Other *	21	24	31	7 ▲
<b>Total</b>	<b>191</b>	<b>147</b>	<b>142</b>	<b>- 5 ▼</b>



## Number of on duty injuries by Cause

Cause	09/10	10/11	11/12	Variation from previous year
Animal / Insect	5	3	1	- 2 ▼
Attack on staff	-	3	-	- 3 ▼
Fall / Slip / Trip	44	39	26	- 13 ▼
Fire / Explosion	1	1	9	8 ▲
Handling (not lifting)	17	32	27	- 5 ▼
Harmful Substance	9	4	5	1 ▲
Lifting / Carrying	19	14	13	- 1 ▼
Physical agent	3	1	4	3 ▲
Stepping on / off	19	2	8	6 ▲
Struck by / against	57	32	38	6 ▲
Travel in / on vehicle	7	6	2	- 4 ▼
Non-accident related **	10	10	9	- 1 ▼
<b>Total</b>	<b>191</b>	<b>147</b>	<b>142</b>	<b>- 5 ▼</b>

There were 142 Injury related events over the 2011/2012 period; a decrease of five events on the previous year.

Reduction in the medium-term since 2006/2007 is 45% with an overall long-term reduction of 79% since 1997/98.

\*Other refers to locations such as Headquarters, Training and Development Centre, Leigh Technical Services Centre and external training courses.

\*\* Non-accident related injuries include events where injury has been sustained but has not been brought on by an actual accident, for example injury sustained after fainting.

Despite this year being the 14<sup>th</sup> successive reduction in the number of injuries, last year saw significant rises in the number of injuries sustained as a result of *fire/explosion* and *stepping on/off appliances*.

Our continued success in reducing the number of fires that we attend increases the need for more realistic training in order to provide firefighters with appropriate knowledge, skills and experience. The introduction of realistic training increases the risk of injuries occurring during training. All training activities are risk assessed and control measures put into place, however there is the potential to see a rise in accidents and injuries occurring during training, as a result of improved realism.

The introduction of our Compartment Fire Behaviour Training (CFBT) facilities is a significant development in meeting realistic training needs. Of the nine injuries attributable to *fire/explosion* over this period, six occurred at the CFBT facility at Oldham; two of the remaining three injuries occurred at operational incidents and one as a result of an exploding battery whilst a vehicle was being serviced. All of these injuries have been thoroughly investigated, including a joint investigation with representatives from the Fire Brigades Union, of the minor injuries that occurred at the CFBT facility. All recommendations from that investigation have been implemented.

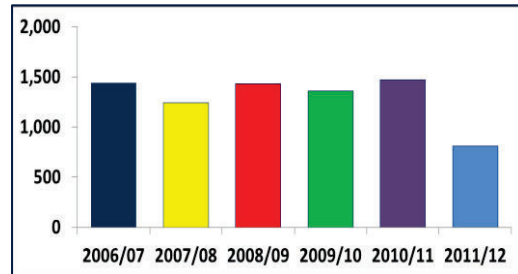
Although the number of accidents and injuries in most categories has fallen, accidents arising from *'fall/slip/trip – handling (not lifting) – struck by/against'* result in the majority of injuries to our staff. This will form a focus area for health and safety campaigns this year.

The number of accidents and injuries at *'other'* locations seems disproportionate to the number of staff working in them; however recording of accidents and injuries is based on where they occur, not where the member of staff is based. This may explain the seemingly disproportionate number of injuries but to provide assurance and identify any potential trends further analysis will be undertaken.

# Days lost due to injury

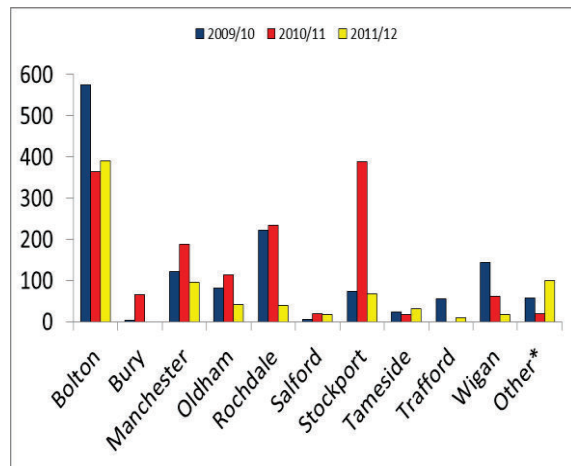
## Total number of days lost due to injury

Period	Total	Variation from previous year	% Variation from 06/07
2006/07	1,445		
2007/08	1,240	-205 ▼	
2008/09	1,430	190 ▲	
2009/10	1,361	-69 ▼	
2010/11	1,469	108 ▲	
<b>2011/12</b>	<b>812</b>	<b>- 657 ▼</b>	<b>- 44% ▼</b>



## Number of days lost due to injury by Borough

Borough	09/10	10/11	11/12	Variation
Bolton	575	365	391	25 ▲
Bury	4	65	-	- 65 ▼
Manchester	121	187	96	- 91 ▼
Oldham	82	113	42	- 71 ▼
Rochdale	221	233	40	- 193 ▼
Salford	5	19	18	- 1 ▼
Stockport	74	388	67	- 321 ▼
Tameside	23	18	32	14 ▲
Trafford	55	-	9	9 ▲
Wigan	143	62	17	- 45 ▼
Other *	58	19	100	81 ▲
<b>Total</b>	<b>1,361</b>	<b>1,469</b>	<b>812</b>	<b>- 657 ▼</b>



## Number of days lost due to injury by Cause

Cause	09/10	10/11	11/12	Variation from previous year
Animal / Insect	4	-	-	- ●
Attack on staff	-	-	-	- ●
Fall / Slip / Trip	368	570	76	-494 ▼
Fire / Explosion	365	365	372	6 ▲
Handling (not lifting)	82	79	64	- 15 ▼
Harmful Substance	-	-	3	3 ▲
Lifting / Carrying	103	59	50	- 9 ▼
Physical agent	3	-	1	1 ▲
Stepping on / off	30	25	90	65 ▲
Struck by / against	146	117	131	14 ▲
Travel in / on vehicle	260	232	25	-207 ▼
Non-accident related **	-	22	-	-22 ▼
<b>Total</b>	<b>1,361</b>	<b>1,469</b>	<b>812</b>	<b>- 657 ▼</b>

The total number of days lost due to accidents fell by 657 to an all-time low of 812; a 45% reduction on last year's figure and a 44% reduction over the last 5 years.

Since 1997/1998 the number of days lost to accidents has reduced by 93%. This year the longest period of injury related absence was 366 days as a result of a member of staff who remains on ill-health leave following an operational incident in 2008; this was one of only six events that resulted in more than 25 days absence.

\*Other refers to locations such as Headquarters, Training and Development Centre, Leigh Technical Services Centre and external training courses.

\*\* Non-accident related injuries include events where injury has been sustained but has not been brought on by an actual accident, for example injury sustained after fainting.

This year there has been a 45% reduction in the total number of days lost due to injuries. In recent years the number has fluctuated somewhat; however this year's reduction is unprecedented.

Last year there were no injuries that resulted in more than 44 days absence\*. In previous years there have been one or more injuries that have resulted in absences of more than 200 days. The reduction of injuries resulting in very long absences from work has had a corresponding effect on this year's total.

Days lost to injury are calculated on an annual basis. Where ill-health leave resulting from an injury spans two reporting periods then the injury is recorded once (in the reporting period it actually occurred in); however, the resultant ill-health may 'roll-over' into the following period. Consequently some ill-health for any period may be as a result of an injury from a previous reporting period (*as is the case this year with 366 days attributable to an injury that occurred in 2008 where the member of staff remains on ill-health leave*).

Over the last year a number of policies relating to the management of absence, have been reviewed or introduced. This together with improved working arrangements with our Occupational Health provider may have helped to mitigate the impact of injuries to enable staff to return to work earlier than was previously the case.

The 45% overall reduction has been reflected across the range of cause groups with some large reductions in those groups that experienced serious events in previous years; examples of this include *fall/slip/trip* with a 494 day reduction and *traveling in/on vehicles* with a 207 day reduction.


It should also be noted that examination of days lost by location reveals a large increase in the 'Other' category, relating to Fire Service Headquarters (FSHQ), Leigh Technical Services Centre (LTSC) and Training and Development Centre (TDC). The rise from 19 days last period to 100 for this period includes the following events:

- 44 days absence for a member of staff from FSHQ involved in a Road Traffic Collision (RTC);
- 30 days absence for a member of staff as a result of a back injury sustained whilst moving ICT equipment;
- 20 days absence resulting from a fall into an underground utility inspection pit whilst taking part in CFBT.

The only cause group that shows a significant increase is '*stepping on/off appliances*' which rose from 25 days to 90 days. Of the eight injuries in this cause group three resulted in 43, 19 and 20 days absence respectively and accounted for 82 of the total of 90 days for this category. Days lost due to accidents as a result of being '*struck by/against*' also increased last year and this category showed the highest number of injuries last year.

In addition to the cause groups above the other main contributory factors to absence resulting from accidents were 'fall/slip/trip' and 'handling (not lifting)'. This serves to reinforce the need for a campaign to further reduce these types of accidents and injuries.

Analysis of '*fall/slip/trip*' data shows that 16 injuries, including six resulting in absence from work, were sustained on premises not under our control; for example, during operational incidents, undertaking prevention activities and external training. There were 10 events, including only two resulting in absence from work that occurred on Service property. This



highlights the need for staff to be vigilant regarding their own safety and that of others regardless of the environment that they are working in.

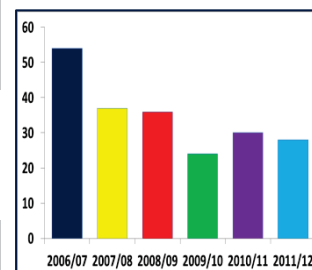
A clear area of focus within all campaigns will be individual responsibility for preventing accidents and accountability when accidents do occur. This will also be built into future accident investigation reporting.

*\* The total includes 366 days attributable to a member of staff who remains on ill-health following injury at an operational incident in 2008.*

# RIDDOR reportable occurrences

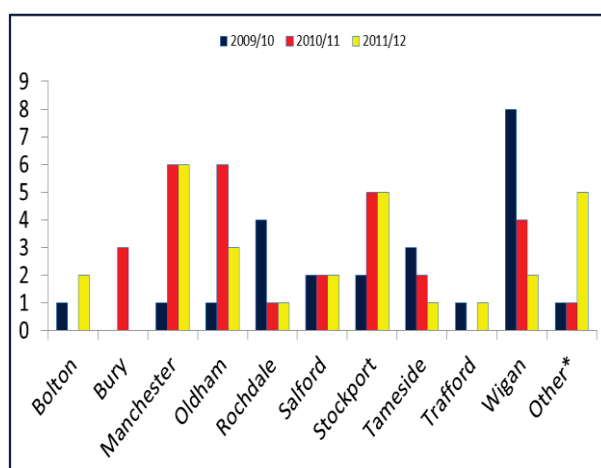
## Total number of reportable injuries and dangerous occurrences

Period	3 day	Major	Dangerous Occurrence	Disease	Total	Variation from previous year	% Variation from 06/07
2006/07	51	3	-	-	54		
2007/08	34	2	1	-	37	- 17 ▼	
2008/09	33	2	-	1	36	- 1 ▼	
2009/10	23	1	-	-	24	- 12 ▼	
2010/11	27	3	-	-	30	6 ▲	
<b>2011/12</b>	<b>26</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>28</b>	<b>- 2 ▼</b>	<b>- 48% ▼</b>



## Number of reportable injuries and dangerous occurrences by Borough

Borough	09/10	10/11	11/12	Variation
Bolton	1	-	2	2 ▲
Bury	-	3	-	- 3 ▼
Manchester	1	6	6	-
Oldham	1	6	3	- 3 ▼
Rochdale	4	1	1	-
Salford	2	2	2	-
Stockport	2	5	5	-
Tameside	3	2	1	- 1 ▼
Trafford	1	0	1	1 ▲
Wigan	8	4	2	- 2 ▼
Other *	1	1	5	4 ▲
<b>Total</b>	<b>24</b>	<b>30</b>	<b>28</b>	<b>- 2 ▼</b>



## Number of reportable injuries and dangerous occurrences by Cause

Cause	09/10	10/11	11/12	Variation from previous year
Animal / Insect	-	-	-	-
Attack on staff	-	-	-	-
Fall / Slip / Trip	6	11	3	- 8 ▼
Fire / Explosion	-	-	2	2 ▲
Handling (not lifting)	4	5	5	-
Harmful Substance	-	-	-	-
Lifting / Carrying	1	5	4	- 1 ▼
Physical agent	-	-	-	-
Stepping on / off	4	2	4	2 ▲
Struck by / against	2	3	9	6 ▲
Travel in / on vehicle	5	2	1	- 1 ▼
Non-accident related **	2	2	-	- 2 ▼
<b>Total</b>	<b>24</b>	<b>30</b>	<b>28</b>	<b>- 2 ▼</b>

There were no cases of reportable diseases or dangerous occurrences this year and the two reportable 'major injuries' related to an incident where battery acid splashed into a members of staff's eyes, resulting in temporary loss of sight and an incident where a member of staff became unconscious following a bang to the head following a blackout.

\*Other refers to locations such as Headquarters, Training and Development Centre, Leigh Technical Services Centre and external training courses.

\*\* Non-accident related injuries include events where injury has been sustained but has not been brought on by an actual accident, for example injury sustained after fainting.



This section sets out those events that were reported to the HSE under the Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR). Given that there were no reportable diseases or dangerous occurrences, reportable injuries for 2011/12 can be split into two distinct categories:

- Major injuries; this includes dislocation, amputation, broken bones and other potentially serious injuries;
- 'Over three day' injuries; i.e. where the member of staff is unable to perform their normal work duties for a period of three days or more.

There were two reportable major injuries to staff in 2011/12:

- A temporary loss of sight as a result of battery acid splashing into a member of staff's eyes;
- A period of unconsciousness to a member of staff following a bang to the head resulting from a blackout.

There were 26 'over three day' injuries over the 2011/12 period. Small increases were seen in both *fire/explosion* and *stepping on/off appliance* cause groups where incidence rose from 0 to 2 and 2 to 4 respectively; however, of greater concern was the rise in the *struck by/against* cause group which increased from 3 to 9 and accounted for over 30% of the total. As set out above this will be an area of focus for the coming year.

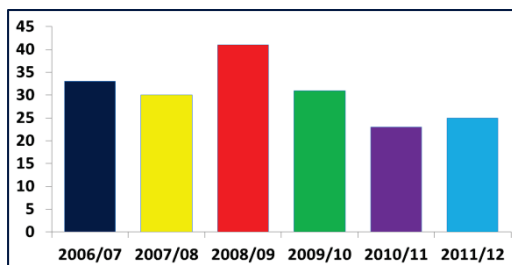
Although the long-term trend in these types of events is downwards and last year saw a reduction in RIDDOR reportable issues, their number remains higher than it was two years previously. This is as a result of the number of 'Over three day' injuries, as this is a potential indication of the severity of the outcomes of accidents, there will be a focus on ensuring that appropriate control measures are being identified and implemented to reduce the consequences of any accidents that do occur.

Reporting criteria has changed from this year and will require the reporting of 'over seven day' injuries rather than three days as is currently the case. This should result in a reduction in the number of reportable events next year, however consideration will need to be given to making realistic comparisons with past performance.

# Injuries to non-operational staff

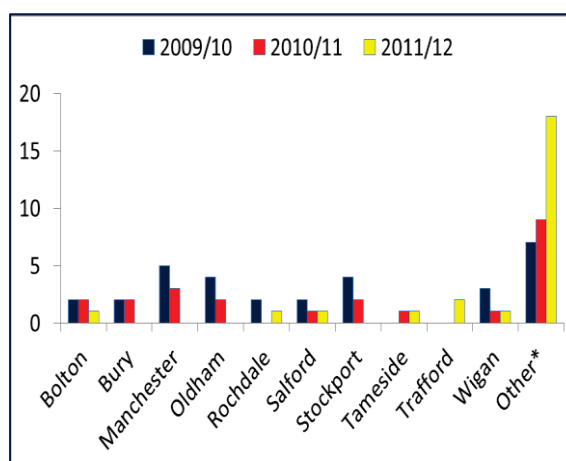
## Total number of injuries to non-operational staff

Period	Total	Variation from previous year	% Variation from 06/07
2006/07	33		
2007/08	30	- 3 ▼	
2008/09	41	11 ▲	
2009/10	31	- 10 ▼	
2010/11	23	- 8 ▼	
<b>2011/12</b>	<b>25</b>	<b>2 ▲</b>	<b>- 24% ▼</b>



## Number of injuries to non-operational staff by Borough

Borough	09/10	10/11	11/12	Variation
Bolton	2	2	1	- 1 ▼
Bury	2	2	-	- 2 ▼
Manchester	5	3	-	- 3 ▼
Oldham	4	2	-	- 2 ▼
Rochdale	2	-	1	1 ▲
Salford	2	1	1	-
Stockport	4	2	-	- 2 ▼
Tameside	-	1	1	-
Trafford	-	-	2	2 ▲
Wigan	3	1	1	-
Other *	7	9	18	9 ▲
<b>Total</b>	<b>31</b>	<b>23</b>	<b>25</b>	<b>2 ▲</b>




## Number of injuries to non-operational staff by Cause

Cause	09/10	10/11	11/12	Variation from previous year
Animal / Insect	-	-	-	-
Attack on staff	-	-	-	-
Fall / Slip / Trip	12	5	6	1 ▲
Fire / Explosion	-	1	1	1 ▲
Handling (not lifting)	-	7	7	-
Harmful Substance	5	-	-	-
Lifting / Carrying	2	1	2	1 ▲
Physical agent	1	-	1	1 ▲
Stepping on / off	-	1	-	- 1 ▼
Struck by / against	9	7	4	- 3 ▼
Travel in / on vehicle	1	-	-	-
Non-accident related **	1	1	4	3 ▲
<b>Total</b>	<b>31</b>	<b>23</b>	<b>25</b>	<b>2 ▲</b>

Although a slight increase on last year's figure, the number of injuries sustained by non-uniformed staff has fallen by 24% over the past 5 years. Only one of the 25 injury events resulted in absence where a member of staff injured their back and had 30 days absence.

\*Other refers to locations such as Headquarters, Training and Development Centre, Leigh Technical Services Centre and external training courses.

\*\* Non-accident related injuries include events where injury has been sustained but has not been brought on by an actual accident, for example injury sustained after fainting.



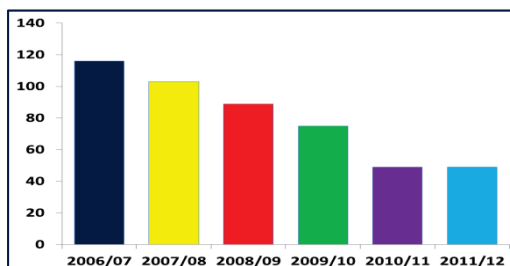
Whilst injuries to non-operational staff remain low there has been a slight increase over the 2011/12 period. Individual cause groups remain low, albeit analysis of injuries by location reveals large increases at FSHQ (*9 in total*) and LTSC (*7 in total*); this is reflected in the 'Other' category which accounts for 18 of the total of 25 injuries.

Although the overall number of accidents and injuries to non-operational staff is low, *'handling (not lifting)* and *'fall/slip/trip'* accounted for over 50% of all accidents and injuries to this staff group. Further analysis of these accidents will be undertaken to identify whether or not there is a link to any specific roles or activities.

# Injuries at operational incidents

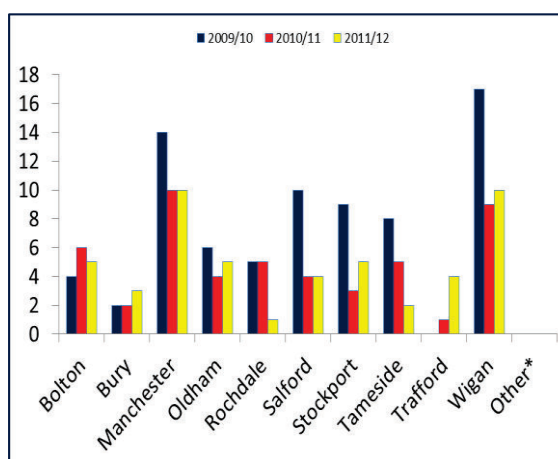
## Total number of injuries at operational incidents

Period	Total	Variation from previous year	% Variation from 06/07
2006/07	116		
2007/08	103	- 13 ▼	
2008/09	89	- 14 ▼	
2009/10	75	- 14 ▼	
2010/11	49	- 26 ▼	
<b>2011/12</b>	<b>49</b>	-	<b>- 58%</b> ▼



## Number of injuries at operational incidents by Borough

Borough	09/10	10/11	11/12	Variation
Bolton	4	6	5	- 1 ▼
Bury	2	2	3	1 ▲
Manchester	14	10	10	- ●
Oldham	6	4	5	1 ▲
Rochdale	5	5	1	- 4 ▼
Salford	10	4	4	- ●
Stockport	9	3	5	2 ▲
Tameside	8	5	2	- 3 ▼
Trafford	-	1	4	3 ▲
Wigan	17	9	10	1 ▲
Other *	-	-	-	- ●
<b>Total</b>	<b>75</b>	<b>49</b>	<b>49</b>	<b>- ●</b>



## Number of injuries at operational incidents by Cause


Cause	09/10	10/11	11/12	Variation from previous year
Animal / Insect	3	1	-	- 1 ▼
Attack on staff	-	3	-	- 3 ▼
Fall / Slip / Trip	16	14	12	- 2 ▼
Fire / Explosion	1	1	2	1 ▲
Handling (not lifting)	7	10	6	- 4 ▼
Harmful Substance	2	-	3	3 ▲
Lifting / Carrying	5	4	4	- ●
Physical agent	-	-	-	- ●
Stepping on / off	18	-	3	3 ▲
Struck by / against	16	11	16	5 ▲
Travel in / on vehicle	-	2	1	- 1 ▼
Non-accident related **	7	3	2	- 1 ▼
<b>Total</b>	<b>75</b>	<b>49</b>	<b>49</b>	<b>- ●</b>

The number of accidents at operational incidents has fallen by 58% over the past 5 years; despite steady decreases year on year, this year the number has remained the same at 49 events.

During the last financial year a total of 49 accidents occurred at 37,902 operational incidents. **This equates to 1 accident for every 773 incidents.**

\*Other refers to locations such as Headquarters, Training and Development Centre, Leigh Technical Services Centre and external training courses.

\*\* Non-accident related injuries include events where injury has been sustained but has not been brought on by an actual accident, for example injury sustained after fainting.

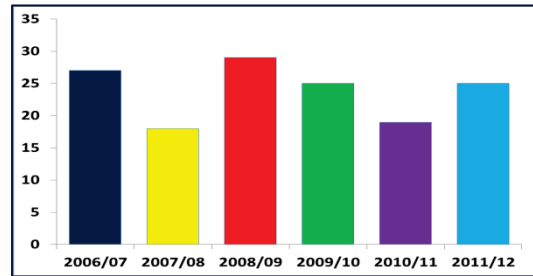


Injuries at operational incidents remain at the same level as 2010/11 with 49 injuries over the period; despite this, the trend remains positive with a 58% reduction since 2006/07. There have been some shifts between cause groups, with a significant increase in the number of accidents resulting for being '*struck by/against*' there have not been any significant increases, this further supports the adoption of a campaign to reduce this type of event.

# Injuries during training

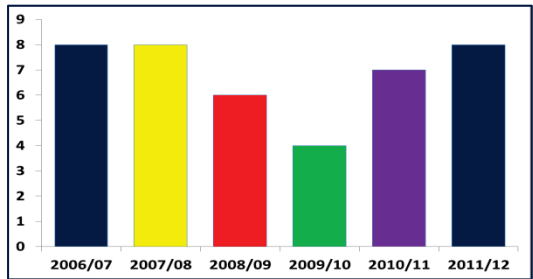
## Total number of injuries during operational training on Service premises

Period	Total	Variation from previous year	% Variation from 06/07
2006/07	27		
2007/08	18	- 9 ▼	
2008/09	29	11 ▲	
2009/10	25	- 4 ▼	
2010/11	19	- 6 ▼	
<b>2011/12</b>	<b>25</b>	<b>6 ▲</b>	<b>- 7% ▼</b>




## Total number of injuries during operational training off Service premises

Period	Total	Variation from previous year	% Variation from 06/07
2006/07	8		
2007/08	8	- ▼	
2008/09	6	- 2 ▼	
2009/10	4	- 2 ▼	
2010/11	7	3 ▲	
<b>2011/12</b>	<b>8</b>	<b>1 ▲</b>	<b>- ●</b>



Although injuries at both training 'on Service premises' and training 'off Service premises' increased this period, the number remains low despite increasing use of more realistic training facilities over the past few years.



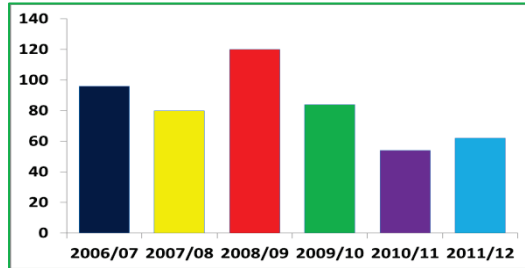


Training *on* Service premises and training *off* Service premises are recorded separately. Where training injuries occurring *off* Service premises have remained low over the past 6 periods, analysis reveals that the downward trend over the past two years for injuries occurring *on* Service premises has been reversed. This is primarily due to the number of accidents and injuries that occurred at our CFBT facilities, these have been reported upon above.

# Near miss incidents

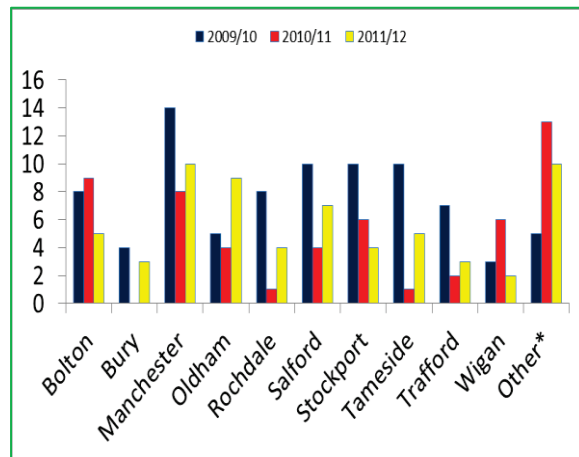
## Total number of near misses at operational incidents

Period	Total	Variation from previous year	% Variation from 06/07
2006/07	96		
2007/08	80	- 16 ▼	
2008/09	120	40 ▲	
2009/10	84	- 36 ▼	
2010/11	54	- 30 ▼	
<b>2011/12</b>	<b>62</b>	<b>8 ▲</b>	<b>- 35% ▼</b>



## Number of near misses at operational incidents by Borough

Borough	09/10	10/11	11/12	Variation
Bolton	8	9	5	- 4 ▼
Bury	4	-	3	3 ▲
Manchester	14	8	10	2 ▲
Oldham	5	4	9	5 ▲
Rochdale	8	1	4	3 ▲
Salford	10	4	7	3 ▲
Stockport	10	6	4	- 2 ▼
Tameside	10	1	5	4 ▲
Trafford	7	2	3	1 ▲
Wigan	3	6	2	- 4 ▼
Other *	5	13	10	- 3 ▼
<b>Total</b>	<b>84</b>	<b>54</b>	<b>62</b>	<b>8 ▲</b>



\*Other refers to locations such as Headquarters, Training and Development Centre, Leigh Technical Services Centre and external training courses.

\*\* Non-accident related injuries include events where injury has been sustained but has not been brought on by an actual accident, for example injury sustained after fainting.

The term near miss can be defined as "an unplanned, uncontrolled event, which has the potential for injury, damage or some other loss". These losses may be human, economic or legal. It is estimated that for every serious accident there will be approximately six hundred near miss reports; therefore, near miss reports can be seen as an important management tool in identifying system failures.





Near miss reports are an important management tool in identifying system failures. The previous five years has seen near miss reporting fall by 35%; however, of even greater concern is the reduction over the last three years from a peak of 120 in 2008/09 to 62 for this period. Notwithstanding this, there was an increase of eight (*from 54 to 62*) for this period with the majority of territorial borough commands experiencing individual increases. Although unproven, near misses would appear to be significantly underreported. Given their importance in identifying trends and potential areas of concern an improvement in this type of reporting will be a focus area for future health and safety campaigns.

## Improvement Action from last year's Annual Report

### **Fall/Slip/Trip**

- A pilot programme, to be run on a trial basis, will commence in Oldham borough command in Q4 2011/12; the programme will consist of amendment to both the frequency and quality of inspections and the monitoring processes that support these.

*Feedback from Employee Representatives, borough health and safety co-ordinators and crews involved in Oldham borough are currently being incorporated into the Corporate inspection regime and will result in an amended process that will be undertaken by local managers. Inspections will be monitored by borough command team members and sampled by health and safety support staff.*

### **Handling**

- Action to reduce handling injuries and associated absence will consist of three elements:
  1. Commencing Q4 2011/12 Health and Safety Support staff will undertake a programme of manual handling assessments; staff will be involved in the process to increase awareness of manual handling issues;

*These have now been completed and are available on the Service's Intranet site*

2. During 2012/13 manual handling training, including awareness of bariatric lifting will be rolled out to operational staff by Health and Safety Support and staff from Operations and Training Sections;

*Training package developed and all but 3 identified initial responders (USAR and S20 crews) now trained; programme to be rolled out to all operational crews starting Q3 2012.*

3. During 2013/14 manual handling training will be rolled out to support staff by Health and Safety Support;

### **Near Misses**

- Commencing Q1 2012/13 a targeted campaign intent on increasing near miss awareness will be undertaken; the campaign, in conjunction with borough health and safety co-ordinators, will broadly follow that undertaken in 2008/09 and include

awareness during health and safety training, a poster campaign and on-line support materials for staff.

*On-line support material has been made available in the form of printable posters and additional awareness is included in all health and safety training (including 2 above).*

## Conclusions


Overall health and safety performance continues to improve with some significant improvements in the number of days lost due to injury. There are however a small number of areas where performance has deteriorated during the last year, most notably accidents and injuries resulting from being '*struck by/against*'. This together with a number of other areas that have resulted in the largest number of injuries and days absent from work will form the basis of a campaign to further improve performance.

Analysis of accident reports has shown an occasional reluctance to either apportion blame or accept responsibility when accidents and injuries have occurred. All accidents are currently reported centrally leading to a lack of knowledge, understanding or ownership of health and safety by individuals or their line managers.

Under reporting of near miss incidents continues to be an area of concern with the number of near miss reports being significantly lower than the number of accidents and injuries that actually occur.

## Recommendations

1. Design and deliver a health and safety campaign focusing on the following key areas to further reduce the number and impact of accidents and injuries:
  - stepping on/off appliances
  - fall/slip/trip
  - handling (not lifting)
  - struck by/against'
2. Carry out further analysis of accidents and injuries occurring at 'other' locations to identify any trends regarding the type of work activity being undertaken, whether or not any specific work groups are involved and to identify whether or not there is a disproportionate number of accidents and injuries involving non-operational staff.
3. Introduce new reporting systems that provide line managers with immediate information relating to accidents and injuries in their area of responsibility, enabling local management and accountability for health and safety matters.

- 
4. Through the new reporting systems above, introduce reports that overtly include the determination and identification of individual or collective responsibility for accidents and injuries.
  5. Closely monitor levels of accidents and injuries arising from training activities to ensure that appropriate control measures are being identified and implemented that maintain realism whilst reducing the potential for accidents and injuries.
  6. Design, deliver and monitor a campaign to further improve near miss reporting.

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# Agenda Item 7

GREATER MANCHESTER FIRE AND RESCUE AUTHORITY

EMERGENCY RESPONSE COMMITTEE

17 JANUARY 2013

Subject: DV 26 – FUTURE FIREFIGHTING UPDATE AND DEMONSTRATION

Report of the County Fire Officer & Chief Executive

Report Author: ACFO Paul Argyle, Director of Emergency Response,  
Tel. 0161 608 4003 Email argylep@manchesterfire.gov.uk

## PURPOSE OF THE REPORT

The purpose of this report is to inform Members of the Emergency Response Committee of the progress made to date with Development Goal (DV) 26 - *“Research and where appropriate, develop and implement new or revised firefighting procedures, equipment and techniques with the aim of improving our firefighting capabilities and public and firefighter safety”*. This DV is now more commonly referred to as “Future Firefighting”.

A practical demonstration of the planned new techniques will be delivered during a recess of the ER Committee meeting on the 17<sup>th</sup> January 2013.

This report and the associated demonstration are intended to give Members clarity as to the planned Future Firefighting techniques and associated equipment and procedures and the benefits that will be delivered. It is also intended to secure continued support for the direction of development and awareness of the relevant financial support required.

## EXECUTIVE SUMMARY

1. Through the Integrated Risk Management Planning (IRMP) process we identify the necessary or opportunistic actions the organisation should take to mitigate the risks identified. Due to the limitations in traditional Firefighting techniques, combined with changes in building designs such as new construction methods and modern materials, etc., Firefighters and the public face associated risks which come with rapidly escalating fires, very high temperatures, irrespirable atmospheres, complex escape routes and rapidly deteriorating circumstances. We have researched the Fire Service and Fire Industry arenas, the associated suppliers and markets and other associated stakeholders and have developed a Future Firefighting approach and strategy which combines the utilisation of different equipment,

procedures and techniques which will improve Firefighter and public safety and reduce fire damage and environmental impacts. The introduction of these Future Firefighting techniques will not only produce professional efficiencies and effectiveness which should reduce the fire damage impact to our community and the environment, but should enable us to deal with incidents more quickly and potentially with a lower level of resource response. This will all be described in this paper and demonstrated during a recess in the meeting.

## INTRODUCTION/BACKGROUND

2. Members will recall that during the Corporate Planning process for 2012-2015 a new Development Goal (DV) was introduced. This was DV 26.
3. Our proactive IRMP processes cause us to 'horizon scan', monitor relevant advances in the national and international Fire Service arena, assess changes in the built environment, changes in industrial techniques and a whole range of other external influences which may affect the environment our Firefighters may find themselves working in.
4. The development of many different modern methods of building construction, combined with the lower number of operational incidents and the continuing instances of members of the public and Firefighter injuries and deaths at incidents had led us to review our firefighting techniques, equipment and tactics in a fundamental manner.
5. This review encompassed on-going developments nationally and internationally in firefighting techniques. We have learnt that several brigades across this country have trialled Cold Cutting/Ultra High Pressure units (often in isolation or simply as a cutting tool) but seem not to have developed their use for firefighting in any significant way; other than Northamptonshire FRS. They have now retro-fitted CC/UHP lances on nearly all their first appliances and have a wealth of experience and successful insights into the use and benefits of their lances.
6. Our research into such techniques was most impacted by what we learnt in Sweden. They have developed in a range of techniques over approximately a 15-20 year period (first tactical ventilation, then use of CC/UHP lances and latterly thermal scanning). This research has led us to a point where we are now taking the next steps and running operational trials, testing and research and development and developing our requirements and specifications in readiness for future procurement of equipment and the delivery of appropriate training.

## CURRENT POSITION

7. The Future Firefighting Project Initiation Document (PID) has been approved and the potential costs for implementation identified. Formal budgetary approval will be sought from the Fire Authority during February 2013.
8. Future Firefighting is intended to develop a combination of methods which, when utilised together, will provide an alternative means of Firefighting to those generally employed today including:
  - A means for the Incident Commander to locate and identify the seat and spread of fire and the fire development by the use of a Thermal Imaging Scanner
  - A means of attacking the fire quickly and safely using Cold Cutting Ultra High Pressure branches (CC/ UHP) initially from outside of the building then supplementing and/or replacing with more traditional firefighting tactics if and when required
  - A means of improving environmental conditions internally by the evacuation of fire gases through the use of positive pressure ventilation (PPV) fans
  - A means of providing “hands free” helmet borne thermal imaging for Breathing Apparatus wearers entering smoke
  - A means of communicating the conditions and interventions on the incident ground via effective integrated video and audio links including where possible the ability to view images outside of the hazard area viewed by crews committed inside
  - A means of securing Thermal Imaging and High Definition images around and above a building and ultimately within the building
  - In the longer term - provision of replacement Personal Protective Equipment (PPE) to support firefighters in the delivery of the interventions listed above
9. Significant progress has already been made in a number of areas referred to above:
  - A team has visited Sweden to see how the combined Future Firefighting techniques are used and learn from the Swedish Firefighters’ years of experience
  - Funding for further research, which will fill the research gaps we have identified, has now been secured and research has been commissioned by the Fire Protection Association into the survivability of people and firefighters who are in compartments when CC/UHP is used
  - A CC/UHP test rig has been procured and fitted to a vehicle and has allowed us to run practical trials to ensure we understand how to use the equipment most effectively and to its optimum capability

- A portable demonstration unit (in which we can create real fire conditions) has also been procured so that we can show operational crews and other interested parties how the CC/UHP operates and how effective it is
  - A large number of PPV trials have been completed and we are now ready with a specification for a new PPV unit
  - We have sourced Thermal Imaging Scanners and are currently trialling them to assess which is most effective and provides the best value
  - We have built the capacity to train operational personnel in the Future Firefighting techniques and use of PPV into the second half of the 20123-2014 training year
  - We are continuing to work with suppliers to identify suitable Thermal Imaging and Communication equipment as well as PPE for delivery in the medium to longer term
10. Following the Emergency Response Committee meeting on the 17<sup>th</sup> January 2013 a demonstration of the combined use of the Thermal Imaging Scanners, CC/UHP and PPV will take place on the training yard at the Training and Development Centre (TDC). The demonstration will show how the Thermal Imaging Scanners are used, how effective the CC/UHP is in a number of different scenarios utilising both the demonstration unit and the Heat and Smoke facility at TDC and finally how the PPV will be used.
11. During the demonstration there will be the opportunity to ask questions and following the demonstration we will return to the Conference Suite at TDC where further questions and discussion can continue.

### OPTIONS/ALTERNATIVES

12. The main alternative to the introduction of Future Firefighting is to continue with the equipment and procedures we currently have and not adopt the new methods. This would in reality mean very slow evolution of firefighting practices; simply replacing equipment with the newer versions as kit wears out, etc. However, this would not allow for the advancements in professionalism, improvements in Firefighter safety and reductions in fire damage losses that should be delivered if we progress with the Future Firefighting Project.
13. Throughout Fire Service history there has been evolution at a slow pace and then occasional revolution in an approach. This often follows a negative incident, such as Firefighter fatalities. Such previous advances have been the introduction of equipment such as BA, BA Guidelines, BA Entry Control Boards, radio communications and telemetry, Hosereel tubing and also the introduction of techniques to deal with flash-overs and backdraughts.



14. We wish to make a revolutionary advancement in firefighting techniques which delivers the benefits previously mentioned; but as a proactive measure without needing to wait for a tragic inspiration.

### PREFERRED OPTION

15. The preferred option would be to secure approval for continuation with the Future Firefighting Project and the associated, necessary budget to enable the project team to proceed with DV 26 and realise the benefits listed at 8 above.

### CONSULTATION

16. Consultation regarding the project is ongoing with the County Fire Officer & Chief Executive and the Assistant County Fire Officer (Emergency Response) who are the project sponsors, the project Stakeholder Group and Authority Members via the Emergency Response Committee.
17. If continued support is attained the consultation process will be widened and will also include appropriate consultation with the Fire Brigades Union; through inclusion in consultation on the DV goal and also through the Joint Health & Safety Committee.

### RESOURCES IMPLICATIONS

18. a) Financial and Procurement

The potential capital commitment for necessary equipment and vehicle adaptations to implement Future Firefighting is £3,402,000. This relates to the provision and fitting of CC/UHP equipment, helmet mounted communications and Thermal Image Scanners to all first appliances, appropriate capacity PPV fans to all first and second appliances, remotely controlled airborne cameras on the Operational Support and Incident Command Units and remotely controlled un-crewed vehicles to allow access to high risk areas.

It should be highlighted that providing alternative and improved Firefighting techniques and equipment will deliver other savings. For example, if one firefighting medium is used (e.g. CC/UHP) other equipment is not used, damaged or needed in the same quantities. Other equipment such as radio communications and PPV equipment needs replacing and improving regardless of this DV goal. If fires are dealt with more efficiently and in a quicker time frame, relevant efficiencies are made and, most importantly, there is an improvement in Firefighter safety, public safety and a reduction in fire damage losses.

b) Human Resources (including Equality & Diversity Implications)

An initial EIA will be completed and if necessary a full EIA; although at this stage there are no apparent equality or diversity implications.

c) Legal and Constitutional

No issues have been identified at this stage. Appropriate financial regulations will be utilised with regard to procurement, etc.

d) Health & Safety

Health and safety risk assessments will be required across the whole range of operational procedures required to implement Future Firefighting.

e) Sustainability

It is anticipated that use of Future Firefighting techniques will allow more rapid intervention and cooling of fire gases, with the resultant reduction in fire damage to property whilst using less water than is currently the case. Appropriate considerations will be given in designing the training courses and training facilities for Future Firefighting; but any environmental impact caused would be massively outweighed by the benefits gained through application of the techniques in the operational arena.

## RECOMMENDATIONS

19. Members are asked to note the current position with regard to DV 26 and to raise any questions during and after the equipment demonstration on the 17<sup>th</sup> January 2013.
20. Members are requested to support the ongoing delivery of DV goal 26 as described in the report and as shown in the demonstration and support the identified budgetary requirement to put the equipment, procedures, training and training facilities in place to deliver this Future Firefighting Project.

STEVE McGUIRK  
COUNTY FIRE OFFICER  
& CHIEF EXECUTIVE

There are no background papers to this report within the meaning of Section 100D of the Local Government Act 1972.

S. McGuirk  
(Proper Officer)  
4.1.13