Construction Forum - 17 September 2007

BACKGROUND PAPER

Health & Safety in the Housing Sector

An independent view using data provided by HSE

Summary

This paper sets out the background to the Construction Forum and explains its focus on the health and safety challenges facing the housing sector.

The 28% increase[1] in construction fatalities in 2006/7 compared with the previous year relates entirely to the housing sector (new build and refurbishment/repair). Output from the sector is high and is likely to increase further under Government plans. It is therefore vital that concerted action is taken to ensure the workforce is safe.

At the Forum on 17th September the Secretary of State intends that a statement is agreed setting out the actions planned. As an invitee you will be telephoned by David Pirnie on behalf of HSE between 3rd to 10th September who will consolidate your recommendations in preparation for the Forum.

The Forum

Newly appointed, The Secretary of State for Work and Pensions[2], the Rt Hon. Peter Hain, was faced with a 28% increase in construction fatalities being reported for 2006/7. As shown below, this reflects a significant increase in fatal injuries in the housing sector where output is set to expand over coming years. The toll in terms of human life and the impact on families is unacceptable. Against the backdrop of sustained effort to improve health and safety across the industry as a whole, the Secretary of State has convened a Construction Forum to focus specifically on the house building sector. By inviting a small group of influential people, with lead roles throughout the housing supply chain, he is determined effective action can be agreed. The Forum will be held on 17th September 2007. It is anticipated that follow-up will be channelled through the Strategic Forum for Construction Health & Safety Task Group.

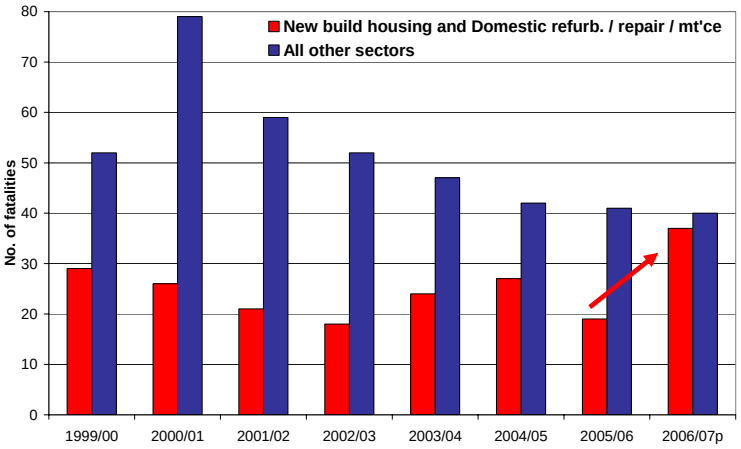
[1] Provisional figures, released 26th July 2007 – www.hse.gov.uk

[2] The Department for Work and Pensions (DWP) is the sponsoring department of the Health & Safety Executive (HSE)

The Fatal Injury Statistics

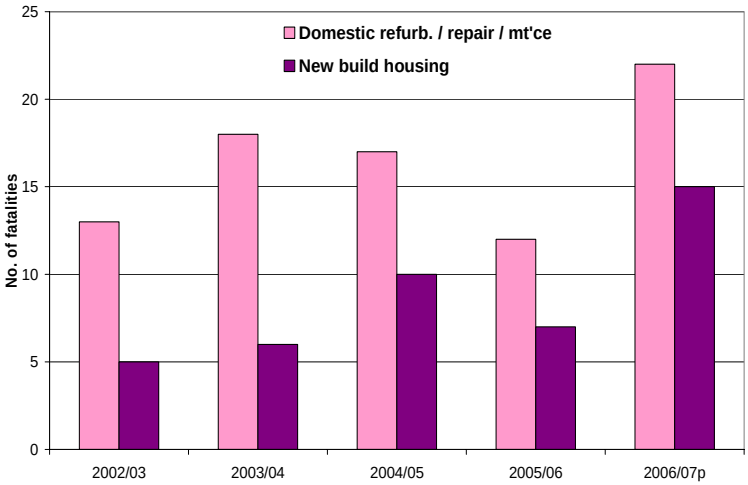
Why focus on the housing sector?

1. Provisional fatal injury statistics for 2006/7 were published by HSE on 26 July 2007. These show a substantial increase in the number of fatalities in the **new-build housing** and **domestic refurbishment / repair / maintenance** (RRM) sectors compared with 2005/6.



2. The hard fact is that **37 men died** building new homes and working on existing domestic properties last year[3].

3. The longer term view (above) suggests the increase *could* be part of a rising trend in fatal injuries to workers in the housebuilding and domestic RRM sectors compared with 2002/3 – red bars. Furthermore, the performance contrasts with other sectors where improvements since the 2001 Summit are being sustained – blue bars.



4. Despite their inherent differences, the worsening performance is recorded in both housing related sectors (left). In new build housing fatal injury numbers more than doubled in 2006/7p compared with 2005/6; for domestic RRM, the increase is over 80%.

5. Although the number of fatalities in domestic RRM is greater, new build is accounting for an increasing proportion of the housing related fatal injuries. The number of men killed on new-build housing projects in 2006/7p is three times the level in 2002/3.

6. There is no evidence of an improving trend in non fatal reportable injuries either. RIDDOR statistics demonstrate that for firms with 'construction domestic' SICs (a category in use since 2003/4), the proportions of fatal, major and over-three-day cases are consistent with the construction reports overall. However, use of the SIC does not give a comprehensive picture for the domestic construction sectors because specialist firms, such as plumbers and electrical contractors, report against trade (as opposed to sector) categories.

7. However, whether the provisional statistics for 2006/7 represent a worsening trend or a bleak year in the housing sector, it is evident that **performance can, and should, be better**. The challenge is to ensure agreed measures take account of the commercial environment, societal expectations, the construction practices and industry resources in 2007 and beyond.

---

[3] The fatal incidents are linked to specific industry sectors by HSE's Construction Division. This is not based on the company SIC (Standard Industrial Classification) but draws on information from the Inspectors investigating each case who have been to site and established the nature of the project and work being undertaken.

The Incidents

What's been going wrong in the work on houses?

8. HSE's Construction Division has conducted a thorough review of the 15 new-build housing fatalities arising from 12 incidents in 2006/7, to enable lessons to be learned and shared, despite the constraints of ongoing investigations and legal proceedings. A review of the 22 domestic RRM fatalities in 21 incidents has also been undertaken.

9. The new-build study involved detailed analysis of the housebuilding projects, the type of work, incident circumstances and competences of those involved, based on facts established by the investigating Principal Inspectors. NHBC and HBF provided data on housebuilding activity and performance statistics. HSE statisticians provided oversight.

10. Statistical conclusions cannot be drawn from the 12 **new build housing** incidents but qualitative insight is valuable. It appears that:

- The incidents were widely spread geographically without any link to hot spots of housebuilding activity or the types of home being built
- Sizes of site ranged from the very large (4) to private domestic new build (2) – on seven sites the output was more than 50 units and NHBC consider 30 units are an 'average' development
- Large clients predominate – national housebuilders and housing associations were the client for seven of the 12 sites.
- Large national and regional principal contractors predominate
- The deceased persons were generally directly employed by contractors - large national firms in the case of utilities contractors and a crane hirer, but micro or small firms (employing fewer than 15 people) in six of the incidents
- Membership of trade associations by the firms varied from strong, active participation to no known involvement.

11. In terms of the incident types, transport (use of construction plant) was the largest category (4 incidents), cranes and other lifting issues (3), collapse of structural elements (3) and an asphyxiation (affecting three men) and one explosion.

12. None involved a fall from height, an issue long associated with construction risks. Only two incidents were specific to housing – a wall panel fell and hit a worker as a timber framed house was being constructed; and a canister of expanding foam sealant exploded.

13. For the 21 incidents in the **domestic RRM sector**, all but one site was small and being run by small contractors employing fewer than 15 people.

14. The incident types comprised falls from height (9), electrocutions (6), collapse of structural elements (2), and four individual cases of manual lifting, drowning, trench collapse and a fire.

15. The connection between new-build and RRM sectors may be as important to recognise as the differences. Many of the incidents are associated with deterioration of the building fabric necessitating maintenance and repair. Improved durability and consideration of safe access can be tackled effectively for future generations at the new-build design stage. For the existing housing stock, transfer of knowledge to small firms about the techniques and

management controls which have brought success in reducing falls and controlling exposure to electricity for example, could be a life-saving endeavour.

16. Without exposing individual cases, some examples of the findings are highlighted below.

17. Supply chain management:

a) In appointing specialist contractors, the Principal Contractor needs to be assured of their competence and safe working practices and ensure this is monitored against performance standards.

b) Appointment of different Principal Contractors by phase demands high standards of communication and cooperation between the parties – the Principal Contractor for each phase must be competent to undertake this role.

c) Subcontractors, particularly small firms, need to be integrated with the health & safety management ethos, not just for site compliance but as a fundamental part of managing a successful construction project to quality, time and budget.

d) The Homebuilders Charter, Constructing Excellence, demonstration projects, and regional groups offer mechanisms to help share good practices through the supply chain.

18. Competence:

a) Wider take up of the CSCS scheme would equip workers with the fundamental principles and practices for safe construction without damage to health.

b) Site induction, training and toolbox talks need to take place for the entire supply chain, reflecting changing site conditions, behaviour of specific mobile plant etc.

c) Requirements for competence apply throughout the management chain so that leadership and commitment to health and safety are visible and continually reinforced.

d) Management need to be competent and have access to competent advice for appointing specialist contractors and selecting specialist plant such as cranes. This needs to follow through to onsite monitoring and inspections.

e) Workforce supervisors need to be equipped for supervisory aspects of the role including point of work risk assessments and reinforcement of health and safety standards.

f) Improved dissemination of information is needed on good housing site practices such as truss handling, stairway openings, temporary support of panels, internal airbags, trench work, lifting operations, joist hangers, spoil heaps etc

19. Design and planning:

a) Site transport, lifting operations etc need to be considered at the design stage and risk management plans need to be in place, reviewed, kept up to date and communicated effectively.

b) Safety can be improved with integrated traffic management and sequencing of selling off plan.

c) Building and product design can be improved to allow for safe erection, repair and maintenance of structures (e.g. temporary conditions in timber frame housing, opening of windows in plant/machines etc)

d) Sharing of experiences and lessons learned could deliver industry wide safety benefits from improved methods, rather than leaving problems to be worked around repeatedly on individual sites.

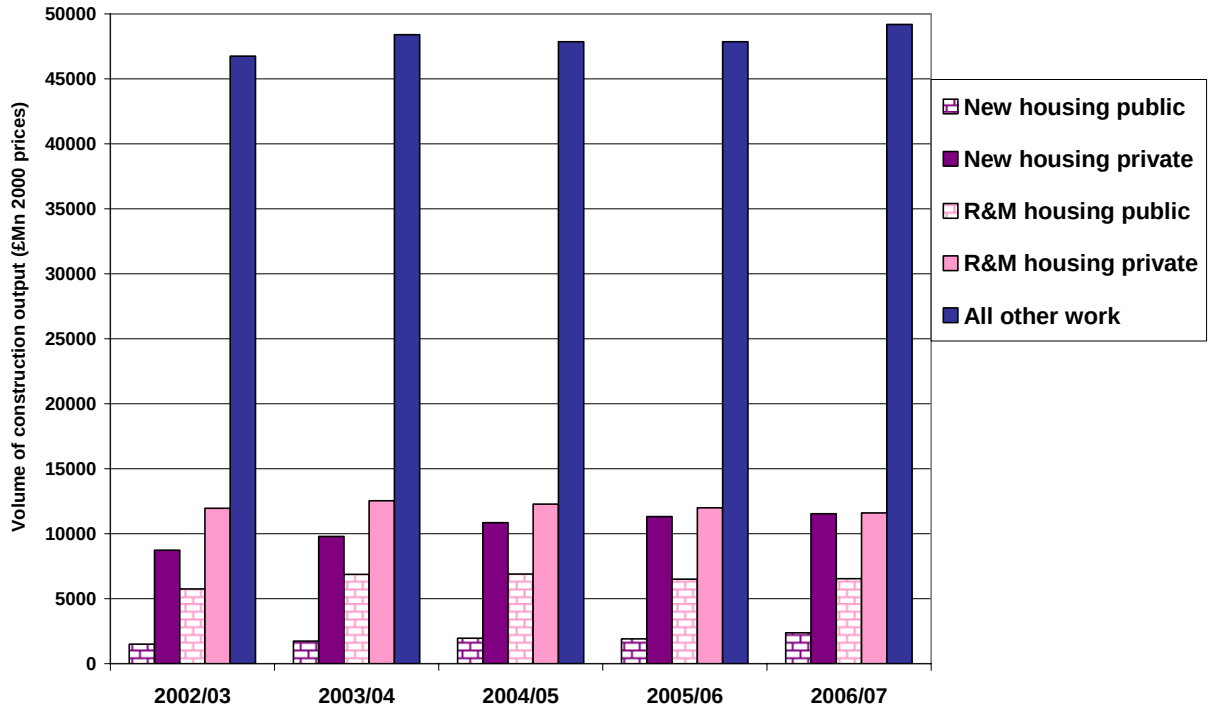
20. It is important to consider not only the **immediate circumstances** of incidents, the equipment and people involved, but also the **organisational influences** from the way work is managed and supervised on the site, the quality and buildabiity of the design, the culture in relation to safety, and the training and advice given. These can be shaped by **corporate policies** in terms of the contractual arrangements, the ownership and control of the project from the client through the supply chain, clear and consistent leadership on health & safety even through times of corporate change, valued workforce relations, and adequate provision of time and money. The industry is not in isolation and the **wider influences** from Government policy, the commercial market, the Health & Safety regulator and societal expectations of the industry as a provider and potential employer need to be accounted for.

21. These considerations as they affect and interact within the housing sectors help not only in understanding underlying causes of incidents but also suggest routes for delivering improvements.

The Housing Sector in context

22. It is appropriate to consider whether the increase in fatal accident numbers related to housing over the past year has been accompanied by a growth in output from the sectors. Latest DTI statistics suggest this is not a factor to any significant extent.

23. The chart shows the volume of output across construction, separating out the data for new build housing and domestic repair & maintenance for both private and public sectors. Important background to the focus on housing is the continuing growth in other areas of construction, 2.8% up in 2006/7 on the previous year.



24. Although the housing sectors have grown in volume and as a proportion of all construction activity since 2002/3, the recent changes from 2005/6 are minimal in the context of a 95% increase in the number of fatalities. The output from the housing sectors in 2006/7 shown above constitutes 34% of the total construction output. The fatal injuries in new build and domestic RRM account for a significantly greater proportion, 48% of the construction total.

25. The rate of construction output growth overall is 2.1% for the year 2005/6-2006/7with total employment numbers increasing by 1.4% based on the latest DTI figures.

26. Other indicators include information from NHBC based on statistics for around 80% of homebuilders, including very small builders and sites. This suggests that the level of building in 2006/7 was 7.5% up on the previous year with registrations for warranties and building control volumes at their highest levels for some 20 years.

27. Preliminary information from HBF, drawn from returns from 20 of the largest housebuilders, echos the concern about increasing accident numbers albeit with a reducing rate - it seems changing working methods may be reducing the demand for workers on site.

28. Short term pressures in the domestic repair and maintenance sector following recent flood damage also require consideration.

29. Looking forward, work by OGC suggests that the Olympics projects may draw skilled workers from across the UK, potentially depleting the regional resource pool.

30. The Housing Corporation annual report and forward plan show 41,657 affordable homes were delivered in 2006/7, 5,000 up on budget estimates, with target volumes of 47,000 in 2007/8.

31. Overlaying this, Government targets are for 200,000 new homes per annum built in accordance with the Code for Sustainable Homes. The Callcutt review is currently examining how supply is affected by the nature and structure of the industry.

32. Just as the aim is to minimise and eliminate the carbon footprint for the benefit of future generations, so too should the housebuilding legacy ensure that homes are safe to build and safe to maintain so that injury to workers is avoided.