

Health and Safety Executive Board		HSE/ 12 /63	
Meeting Date:	22 August 2012	FOI Status:	Fully Open
Type of Paper:	Above the line	Exemptions:	
TRIM Reference:	2012/319884		

HSE's REGULATION OF THE CONSTRUCTION INDUSTRY

Purpose of the paper

1. This paper provides an update on HSE's regulation of the construction industry. The Board is asked to note its contents.

Background

2. The impact of the recession on the construction industry continues to be severe. In 2011/12 decline in the residential and commercial sectors was offset in part by growth in infrastructure work such as Crossrail. However, the overall picture is one of a depressed market with further recent further falls in activity. **Annex 1** provides further details.
3. Progress in reducing injuries and ill-health arising from construction work remains mixed. **Annex 2** provides details, but in summary:
 - a) The provisional number of fatal injuries to workers in 2011/12, is 49, this equates to a rate of 2.3 per 100,000 workers. The corresponding figures for 2010/11 are 50 (2.3). In addition, both numbers and rates of major injuries fell to their lowest on record in 2010/11.
 - b) The most recent Labour Force Survey figures indicate a reduction in the number of people whose current or most recent job was in construction and who suffered from an illness which was caused or made worse by their job. The survey also estimated that, of the 2.3 million working days lost due to construction-related ill-health or injury, three quarters were due to ill-health.
 - c) The Burden of Occupational Cancer research shows that construction work is the main cause of occupational cancer deaths. The primary agent/occupations being asbestos and respirable crystalline silica.

Argument

4. The Construction Division (CD), part of the Field Operations Directorate is the HSE lead for regulating the construction industry. CD's work is designed to engage with stakeholders in a variety of ways to deliver a targeted plan of work that supports industry in achieving compliance, encourages those who are striving for excellence and takes a robust enforcement line with those who are not. Central to this are the objectives of ownership by the industry, leadership from senior industry figures and partnership working.
5. The Sector Strategy and current three-year plan set the framework for delivery of CD's work. The Strategy characterises construction into three broad areas: larger sites/dutyholders, smaller sites/dutyholders and work with asbestos.

Operational Activity

6. In 2011/12 inspectors delivered 11,367 inspections (including inspections following investigations, inspections of high risk sites and inspections of poor performers). 55% of proactive inspection effort was spent on refurbishment and small sites and 20% on asbestos removal work. Construction continues to account for over one-third of all enforcement activity in HSE. Details on enforcement are contained in **Annex 3**.
7. The continued poor health and safety performance of the refurbishment sector remains a concern. In February and March a sixth annual intensive enforcement initiative on refurbishment work was run, 3237 sites were visited and standards were found to be slightly improved compared with previous years but, even so, formal enforcement action was taken at 581 of the sites. Details of the initiative are in **Annex 3**.
8. CD is committed to improving standards of occupational health in the construction sector and, within that, levels of protection against occupational cancer. Asbestos is the biggest contributor to new occupational cancer registrations in construction. However, whilst these registrations reflect historical exposures, work is focused on current risk areas including the licensing regime and refurbishment work.
9. Most asbestos work (including all work with sprayed asbestos coatings, asbestos insulation or lagging and most work with asbestos insulating board) requires a licence because of the particularly hazardous nature of these materials. Licence holders have to notify HSE of any work with such materials. It is only work where the risk of exposure is low (such as work with asbestos cement) that is not normally licensable. HSE's Asbestos Licensing Unit (ALU – now within CD) administers the licensing regime in line with HSE's Policy on such regimes (see <http://www.hse.gov.uk/enforce/permissioning.pdf>). Those applying for, or extending existing, licences (which are issued for a fixed period of time) must demonstrate the necessary skills, competency, expertise, knowledge and experience of work with asbestos together with excellent health and safety management systems.
10. The licensing regime therefore gives a significant level of control over the standards that contractors bring to most work with asbestos. By visiting sites where licensable work is being carried out we are able to check the contractor's performance on-site. This information can then be fed into assessments of subsequent applications to extend a contractor's licence. In 2011/12, 280 assessments were made of which 36 licences were refused, 10 licences were amended following inspection resulting in a reduction of the duration of the licence and, following licence review meetings, 3 licences were also amended with one being surrendered. In 2011/12, a further 1690 visits to licensed asbestos removal work were carried out and the information from these visits will feed into future assessments of licence holders. These visits constituted around 20% of CD's operational work in 2011/12.
11. In addition to the above work, priorities in the inspection of small sites and refurbishment work (around 50% of CD's site inspection) include asbestos and other respiratory risks. In refurbishment, the management of asbestos by the

client and other parties is also a priority. Details of the outcome of CD's yearly Intensive Inspection Initiatives which targets refurbishment work are set out in Table 6 of Annex 3. Following enforcement against a number of dutyholders in the retail sector, work is underway with clients and their supply chains on the management of asbestos risk during refurbishment work. CD's enforcement work also emphasises the need for appropriate surveys of buildings to be carried out so the whereabouts of asbestos is known and can be properly managed, thus helping to avoid accidental exposure, particularly by those most at risk – tradesmen such as electricians and plumbers. This work links with and supports the 'Hidden Killer' campaign.

12. CD also carries out operational work on other occupational health priorities which also impact on levels of protection against occupational cancer. An example is the visits to a number of companies engaged in stone masonry on sites in Scotland visited to assess the level of awareness of the health risks from respirable crystalline silica. A generally low level of understanding was found, both of the risks and precautions that should be taken and in particular, the selection and face fitting of respirators. Such operational work is in addition to the work carried out by CD summarised in paragraphs 14 (a) and (b) and in paragraphs 16-19 of Annex 4.
13. Other examples of operational interventions reflecting national and local priorities delivered by the Division in the last 12 months include:
 - a) Continued strategic interventions with large dutyholders focusing on early interventions on major projects designed to secure a strong client leadership and commitment to the delivery of excellence in health and safety. The approach was successful during the 'big build' phase of the Olympics, and joint HSE/industry sponsored research sets out the legacy lessons for industry. The same approach is being used for other large projects including Crossrail; the Glasgow 2014 Commonwealth Games; the second Forth crossing and new nuclear build at Hinkley Point.
 - b) Following recent fatalities in London as a result of collapsed excavations, visits were targeted to basement construction sites to raise standards in this sector. The enforcement led initiative was reinforced with a Safety Awareness Day which was jointly organised by HSE and the London District Surveyor's Association. Work is also underway with industry stakeholders to develop sector specific guidance for this type of work.
 - c) Work arising from concerns that the Isle of Wight may have lower standards of construction health and safety than the mainland. These concerns were tragically underlined by the fatal injury of a scaffolder in March 2011. An inspection initiative carried out in response to these concerns included a two-day training event targeted at local scaffolders, contractors and local authority employees, including Building Control.. This was run in collaboration with the Isle of Wight College and others and led to the formation of a new Working Well Together (WWT) team for the island. Tangible improvements have been seen following this work.

Work with stakeholders and other activities

14. In addition to its operational work, CD's sector and policy teams contribute significantly to the overall plan of work through a range of other activities including engagement with industry stakeholders. Details of this work and

associated operational activity are set out in **Annex 4**. The Board may wish to note this includes:

- a) work with trade bodies, manufacturers and suppliers to encourage the development of on-tool dust extraction for a range of hand held equipment used for drilling, cutting and similar activities;
- b) given the success of previous supply chain initiatives to tackle individual health risks (eg. manual handling and HAVs), the formation of a new Supply Chain Initiative drawing together all the health risks arising from street works;
- c) supporting the industry led Strategic Forum Plant Safety Group. This Group has published a range of industry guidance on plant and equipment over the last few years including various guides on tower crane safety and telehandlers;
- d) taking forward a small sites strategy through:
 - publication of customised guidance for SMEs including “Busy Builder” leaflets and new Website FAQs;
 - continued support and delivery of the WWT campaign. Exceeding the planned total of events and the formation of two new groups;
 - launch of the Leadership and Worker Involvement Toolkit – a web based resource, developed in collaboration with industry, to help SMEs improve their management of health and safety. A number of larger contractors are promoting the use of the toolkit both within and outside of their supply chains;
- e) work in partnership with the UK Timber Frame Association to develop design guidance on controlling off site fire risk during timber frame construction.
- f) formation of an industry working group of stakeholders involved in the construction of temporary demountable structures in the events industry to develop industry standards.

Fee for Intervention

15. CD is engaged in developing the arrangements to implement fee for intervention (FFI) through its involvement in ‘shadow running’. Implementation of FFI presents particular challenges in the construction industry due to the presence of multiple dutyholders. Complex procurement arrangements, together with the specifically-defined dutyholder roles in Construction (Design and Management) Regulations 2007 (CDM 2007) often means a number of duty holders potentially being in material breach for the same set of circumstances. Guidance is being developed to assist Inspectors apply cost recovery in a sensible, practical manner, in a way which is fair to all duty holders and meets the requirements of the Health and Safety (Fees) Regulations 2012.

Better Regulation

16. Following publication of its report of the findings of the evaluation of CDM 2007, the industry has been engaged in discussions over developing proposals for a revised CDM Regulatory package. A consultative document and draft regulations to replace CDM 2007 are now in preparation, and the Board will consider these in December.
17. Work has also taken place to deliver the construction specific recommendations made in Professor Löfstedt’s review. Aside from publication of the CDM 2007

evaluation report work was carried out on the recent consultation on revocations contained proposals to revoke the Construction (Head Protection) Regulations 1989 and the Notification of Conventional Tower Cranes Regulations 2010.

Construction Programme 2012/13 and beyond

18. The Construction Programme is now in the second year of its current 3 year plan. Continuity was one of the original drivers so wholesale changes are not proposed to the overall plan for 2012-13. Interventions will continue to target high-risk and poor performing dutyholders, with a focus on small businesses
19. Operational priority areas within the 2012/13 plan include: small sites/dutyholders, asbestos licensing, refurbishment and major projects/large contractors. However, as well as continued delivery on existing priorities, some new elements will be introduced and others will evolve. These include:
 - roll out of “Large Contractors” Pilot taking a strategic approach to intervening with national contractors;
 - a supply chain initiative with the lift installation and maintenance sector to identify causative factors in recent accidents with a view to the relevant trade bodies and larger companies leading on delivering improved standards;
 - further work on existing supply chain initiatives, particularly those relating to the control of dusts; and
 - revision of key guidance documents including HS(G)150 “Health and Safety in Construction”.
20. The commitment to making information easier to understand and more accessible remain. This aligns with a number of wider drivers and includes:
 - continuing to support industry led WWT Groups to deliver at least 50 events in 2012/13 and create new groups when the opportunity arises. Despite the current financial circumstances, WWT is managing to maintain its effectiveness in improving health and safety for small businesses. WWT continues to provide an effective model for engagement with the smaller end of the industry, not least as a result of the significant work that members of WWT groups carry out on a voluntary basis;
 - new work with material supply organisations (and others) to deliver guidance and key messages to smaller businesses; and
 - continuing the development of simplified, straightforward guidance, including new Busy Builder Sheets.
21. The leverage of closer working with local authorities remains a priority, though the constraints which limit the resources available to local authorities is recognised. Engagement will continue with other enforcement agencies including Building Control in both the local authority and private sectors and Trading Standards. This work will include a review of the agreement between HSE and the Building Control Alliance.
22. The construction industry continues to be profoundly affected by the economic downturn, and the indications are that its recovery will be slow. Smaller sites and the refurbishment sector still account for the majority of fatal accidents and

will remain the focus of CD's work alongside work on the significant health risks of asbestos and respirable crystalline silica. Local inspection teams are being encouraged to develop innovative approaches to smaller dutyholders which can be then shared across the Division.

23. Engagement will continue with the industry, particularly to influence key developments such as the use of Building Information Modelling (BIM), the revision of pre qualification and procurement standards (eg PAS 91) and ensure that key stakeholders continue to take leadership on health and safety. Any changes within the industry as a result of government policy or initiatives will be scrutinised to ensure that the CD's Plan of Work remains current. The Division remains well placed to adapt its plan of work accordingly and to secure industry commitment to maintain health and safety performance including when the industry begins to expand again.

Action

24. The Board is invited to note the contents of this paper.

Paper clearance

25. This paper was cleared by the Senior Management Team on 8 August 2012

Current state of the construction industry and future prospects

1. The construction sector¹ was severely hit by the 2008-09 downturn, and despite some growth in 2011, output in early 2012 has declined markedly. According to the latest ONS Annual Business Survey (ABS), Gross Value Added (GVA) in the whole construction value chain fell by around 23% between 2007 and 2009, the peak and the trough of the cycle. Over the same period, turnover and employment also suffered substantial falls, declining by 16% and 3%, respectively.

Table 1: GVA, Turnover, Employment and Number of Enterprises in Construction

	2007	2008	2009	2010
GVA (£ million)	111,742	106,139	86,019	85,397
Turnover (£ million)	300,911	301,173	254,232	248,650
Employment (million)	2.24	2.11	2.00	1.82
Number of enterprises	298,049	301,392	288,969	279,489

Source: ONS Annual Business Survey (November 2011)

Notes:

1. UK, current prices, seasonally adjusted

2. Construction comprises construction contracting (Divisions 41-43 of SIC 2007), the construction products sector and construction-related professional services such as architectural, surveying and project management.

2. ONS data covering the construction contracting² sector reveal that the two driving forces behind the slowdown in construction activity during the recession were the private residential and commercial sectors, the two main engines of growth in the pre-recession period. These two sectors together accounted for around three quarters of the 18% decline in overall construction output seen during the downturn. Industrial construction and the repair and maintenance sector were also hard hit, as manufacturing activity was severely affected by the recession and households responded to the uncertain outlook by cutting back on expenses. By contrast, infrastructure and public-funded non-housing construction expanded during the recession.

Outlook

Trading conditions in the construction contracting sector are expected to deteriorate further in 2012-13. Industry forecasters, such as the Construction Products Association (CPA) and Experian expect the industry to contract by around 3-4% in 2012, as the public spending cuts are felt and private sector growth is too weak to compensate for the slowdown in public construction work.

3. The longer-term outlook for the construction sector appears more positive. According to Experian's spring forecasts, growth will return next year (1.3%) and gather pace (4.7%) in 2014 as the negative impact of the public spending cuts subsides and private sector activity picks up. Although growth is expected to be flat next year, it is forecast to exceed 3% in 2014 and 5% in both 2015 and 2016, driven by expected increases in private housing and commercial activity.

¹ The construction sector here refers to the whole value chain, which comprises the construction contracting sector (i.e. construction of buildings, civil engineering and specialised construction activities such as demolition, site preparation etc.), the construction products sector and construction-related professional services such as architectural, surveying and project management.

² Construction contracting is the largest component of total construction, accounting for around 70%, according to the latest ABS data.

Industry workforce

4. ABS figures indicate that there were around 279,000 enterprises across the whole construction industry in 2010, down from nearly 289,000 in 2009 and 301,000 in 2008. Employment in the sector fell from 2.11 million in 2008 to 1.82 million in 2010. More recent data from the ONS Workforce Jobs series suggests that the number of workforce jobs in the construction contracting sector rose slightly by 0.8% (or 17,000) between 2010 and 2011, demonstrating a net shift from employment to self-employment. This might be expected in the context of significant industry redundancies.

5. Employment is forecast to continue to decline in both 2012 and 2013. Furthermore, employment growth is set to be weak in subsequent years. As a result, employment is expected to remain around 5% below its pre-recession peak by 2016.

6. Construction Skills Network predicts that the industry will require 45,000 new construction workers per year over the next four years as a result of turnover and new work. This is around half of the number required in the pre-recession years.

State of health and safety in the construction industry

Safety

1. Tables 1 and 2 below show the number and rates of deaths and injuries since 2006/7. They show that the provisional figures for the number and rate of fatal injury in 2011/12 are similar to those for 2010/11. The figures for 2010/11 have now been finalised and confirm the disappointing rise in the number of fatalities to construction workers from those recorded in 2009/10 (which was the lowest such figure on record).

Table 1: Numbers of deaths, major injuries and over 3-day injuries suffered by workers and members of the public following construction accidents 2006/7 to 2011/12

Year	Deaths			Major Injuries		Over 3-day Injuries*
	All Workers	MoPs	Total	Employees only**	MoPs	Employees only**
2006/7	79	7	86	3742	191	7219
2007/8	72	3	75	3727	195	7533
2008/9	52	4	56	3318	195	6860
2009/10	41	4	45	2601	161	5712
2010/11	50	2	52	2298	174	4784
2011/12p	49	1	50	Not yet available		

* = over 3-day injuries only apply to workers

** = Self-employed statistics omitted due to known under-reporting

p = provisional statistics

Table 2: Rates of reportable injuries per 100,000 construction workers* 2006/7 to 2011/12

Year	Deaths	Major Injuries	Over 3-day Injuries
2006/7	3.3	231.6	446.8
2007/8	3.3	231.3	467.6
2008/9	1.9	200.0	413.4
2009/10	2.0	180.5	396.5
2010/11	2.3	173.2	360.5
2011/12p	2.3	not available until October 2012	

* = for major and over 3-day injuries, the rate is per 100,000 employees only

p = provisional statistics

2. All figures should be seen in the context of a longer-term decline in numbers and rates of injury. For example, in 2000/01 there were 105 deaths with a fatality rate of 5.9 per 100,000 workers. Even five years ago 79 workers were killed (3.3 per 100,000 workers).

3. Provisional 2011/12 figures for major and over three-day injuries until statistics will be available in October 2012.

Health

4. Progress in reducing the numbers suffering ill-health continues to be limited. Table 3 shows figures for the prevalence of work-related ill-health in construction since 2006/7 taken from the self-reported work-related illness module of the Labour Force Survey (SWI). The data suggests a fall of around 20% between 2001/02 and 2010/11, with a range of possibilities between 7% and 32% (95% confidence interval).

Table 3: Estimated prevalence and rates of self-reported illness caused or made worse by the current or most recent job in each of the years in construction 2006/7 to 2011/12.

Year	Estimated prevalence	Rate per 100,000 employed in the year
2006/7	101,000	3960
2007/8	97,000	3700
2008/9	97,000	3720
2009/10	85,000	3660
2010/11	79,000	3560
2011/12	Not yet available	Not yet available

5. Ill-health and occupational disease deaths statistics continue to far outweigh those attributed to safety incidents and fatal injury, however. Of the 2.3 million working days lost to both workplace injury and self-reported work-related illness, 1.7 million were because of the latter.

6. Over 5,000 occupational cancer cases are estimated to arise each year as a result of past exposures in the construction sector (Cancer Burden Study, 2010). Construction also saw an estimated 36,000 new cases of work-related ill health in 2010/11 with rates of musculoskeletal disorder significantly higher than average.

Construction Division's enforcement activity

1. Tables 4 and 5 provide information about the level of formal enforcement activity carried out by CD in the context of overall HSE enforcement activity in each of the years 2006/7 to 2011/12. Table 6 sets out detail of CD's inspections and enforcement activity during its annual intensive inspection initiatives.

Table 4: Enforcement Notices* (Improvement, Deferred and Immediate Prohibition) served on the construction industry and all industries 2006/7 – 2011/12

Year	Construction Industry (% of all industries total)	All Industries
2006/7	2363 (29%)	8234
2007/8	2575 (33%)	7758
2008/9	2490 (31%)	8077
2009/10	3451 (35%)	9727
2010/11(p)	3826 (35%)	11020
2011/12	Not yet available	

(p) = provisional

* = Industry classifications have been updated to reflect SIC 2007 coding

Table 5: All Informations* laid by HSE – for the construction industry and all industries 2006/7 – 2011/12

Year	Construction Industry (% of all industries total)	All Industries
2006/7	434 (43%)	1018
2007/8	402 (40%)	1006
2008/9	404 (39%)	1034
2009/10	344 (39%)	885
2010/11(p)	362 (40%)	912
2011/12	Not yet available	

(p) = provisional

* = Industry classifications have been updated to reflect SIC 2007 coding

Table 6: CD's Intensive Inspection Initiative Results 2007 – 2012

Year	Nos. of Inspections and (Improvement and Prohibition) Notices Issued				
	Sites Inspected	Contractors Inspected	WAH Notices*	Good Order Notices	'Other' Notices**
2007	1295	1586	246	37	143
2008	1108	1419	227	30	138
2009	1759	2145	282	23	186
2010	2014	2414	370	29	292
2011	2128	2526	403	37	295
2012	3237	4080	446	31	393

*WAH = Work at height

**'Other' = Other serious areas of concern including fire and asbestos

2. The following provides examples of the wide range of successful, completed prosecutions brought by CD since September 2011:

Construction firms fined following poor standards of asbestos management

A prosecution of Marks and Spencer PLC was completed and attracted a high level of publicity. Marks and Spencer, Styles and Wood, Wilmott Dixon, Clarence Contractors and Pectel were prosecuted following poor standards of asbestos management during a refurbishment programme at two stores in Reading and Bournemouth. Marks and Spencer was fined £1million with £600,000 costs; Styles and Wood £100,000 with £40,000 costs and Willmott Dixon £50,000 and £75,000 costs.

Liverpool businessman fined over roof fall death

A businessman was fined after a labourer died following a fall from the roof of an industrial unit, just months after another worker was injured in a fall at the same site. Whilst fitting roof panels at a construction site the worker lost his balance while on a narrow beam and no scaffolding had been erected. The 51-year-old father-of-two was paralysed from the waist down and died of pneumonia just over seven months later as a result of his injuries. The dutyholder pleaded guilty and was fined £112,000 and ordered to pay £19,331 in prosecution costs.

Housebuilder fined after child seriously injured

A housebuilder was fined £20,000 after a young boy was seriously injured when timber roof trusses fell onto him whilst playing with friends on an unsecured storage area of a construction site near Paisley. The site was only partially fenced, and as a result there was a large gap at the side and rear which meant that the site could be easily accessed by members of the public, including children. The investigation also revealed that the roof trusses had, at some point, been stacked upright which made them unstable and more likely to fall over. BDW Trading Ltd, of Coalville, Leicestershire was fined £20,000.

Firm sentenced after surveyor killed by reversing lorry

Costain Limited was fined £250,000 and ordered to pay £45,000 in costs after a surveyor was killed by a reversing lorry during work to widen the M25 near Dartford. Whilst talking on a mobile phone he could not hear the approaching truck above the noise of nearby motorway traffic, when he was hit from behind. The 38 year old surveyor sustained multiple injuries as a result of being run over by the eight wheel vehicle and was pronounced dead at the scene.

Roofing firm fined for unsafe roof work

Roofing contractor Aquacoat Ltd of Derby was found guilty of breaching the Work at Height Regulations 2005 after two of its roofers were caught working on a roof without any safety equipment. It was fined £10,000 with £4,177.65 costs. The unsafe system of work risked injury to the roofers themselves and the homeowner.

Other work of Construction Division

1. HSE's Construction Sector provides a focal point for contact between HSE and the construction industry and supports operational staff. It also has a policy function which is responsible for leading on construction health and safety legislation. The Sector delivers a substantial amount of work in support of HSE's strategic goals. The goals towards which the work contributes are indicated in each heading.

CONIAC and its Working Groups - *Strategy Goals: safer, healthier workplaces, worker involvement, support to SMEs, competence and leadership*

2. CONIAC's current constitution runs until 2013. CONIAC continues to represent a broad range of industry and worker representatives. Its industry profile is high and its public meetings attract significant public interest. 2011-12 has seen a growth in the activities of its working groups and the links between these working groups and CONIAC have been significantly strengthened.

3. 2011 saw the creation of a new working group (WG) examining catastrophic events in the construction industry, and the completion of the work of the CDM evaluation WG. There are now four WGs:

- (a) the Health Risks WG – (see paragraph 19);
- (b) the Safety WG, whose primary focus is development of a long-term strategy for reducing risks from work at height. It continues to work closely with the Strategic Forum for Construction's Plant Safety WG and provides a good example of how CONIAC WGs can complement the work of industry groups;
- (c) the WWT Steering Group, continues to provide leadership for the various regional WWT groups;
- (d) the Catastrophic Events WG which began work in January and is seeking to encourage and develop an industry-wide response to the findings of a report on major accident potential in construction.

Better Regulation - *Strategy Goals: leadership, building competence, safer, healthier workplaces and support for SMEs*

4. . CD has contributed to HSE's response to Professor Löfstedt's report 'Reclaiming health and safety for all: An independent review of health and safety regulation'.

5. In particular, CD's policy unit has been closely involved with consultations on proposals to revoke or amend various sets of health and safety legislation. The proposals include the revocation of the Construction (Head Protection) Regulations 1989 and the Notification of Conventional Tower Cranes Regulations 2010.

6. Following the board's decision in December 2011, work has commenced on developing a revised CDM regulatory package. This has included engagement with key stakeholders and the plan is to present revised regulations and a Consultative Document to the Board at its December 2012, with a view to public consultation in early 2013.

Review of guidance

7. As part of HSE's wider review of guidance CD has been reviewing its external guidance to ensure it is practical and proportionate and easily comprehensible. In parallel with this work, CD has also undertaken a comprehensive review of its internal operational guidance to ensure that this remains consistent with CD's plan of work, and reduces unnecessary information that could potentially hinder front-line delivery.

Supporting SMEs - Strategy Goals: worker involvement, competence, healthier, safer workplaces and customising support for SMEs

8. Small and Medium Enterprises (SMEs) still form the largest section of the construction industry and a high proportion of fatalities and other injuries occur on small sites where fewer than 15 people work. CD's Small Sites Strategy continues to encourage small construction sites to take action to improve their health and safety performance via: a combination of HSE inspection activity; communications activity in the form of new customised guidance; simplification of existing guidance; and delivery of the Working Well Together campaign events with industry partners.

Working Well Together (WWT) campaign

9. HSE continues to co-ordinate the activities of WWT through its Steering Group. Its delivery model is mature, and is widely respected as being a highly effective and cost efficient means to deliver key health and safety messages to large numbers of construction workers. The construction industry continues to be strongly committed to WWT and provides a substantial investment in both time and money. WWT delivered 71 events in 2011/2012 to over 5,400 delegates across the country. This figure exceeded the planned 50 events, which is extremely positive in the current climate and was achieved well within budget.

10. Events have included 'High Five' Safety and Health Awareness Days, 'White Van' Roadshows, Designer Awareness Days and Mock Trials. Mock Trials are proving an effective way to deliver key messages to the industry and are growing in popularity. Several groups have also run half-day Asbestos Awareness workshops.

Communication including Construction webpages and e-Bulletin – Strategy Goals: worker involvement and support for SMEs

11. CD continues to look at ways to make its published information easier to understand and more accessible, especially for smaller businesses and infrequent users. As part of this work, the Construction pages on HSE's website are constantly reviewed to ensure they meet the needs of small and micro businesses. This continues to be the most popular industry webpages on HSE's website. In the year ending 31 March 2012, the construction pages attracted 822,781 visitors and 3,066,982 page requests.

Infonet e-Bulletin

12. The Construction Infonet e-Bulletin remains highly popular, with over 51,000 subscribers. In June 2011, CD switched to using GovDelivery software and introduced a new design for the e-Bulletin, making it more accessible. Feedback from recipients was positive indicating the service has considerably improved.

Response to closure of HSE Infoline

13. In preparation for the closure of HSEs Infoline CD undertook significant work to review and develop topic specific Frequently Asked Questions (FAQs). Over 200 FAQs covering CDM and safety and health risk management went live on the HSE website in September 2011. Between September 2011 and 31 March 2012 there were 153,569 visitors to the construction FAQ pages.

Health Risk Management – Strategy Goals: *healthier workplaces, competence, securing justice, worker involvement and securing justice*

14. Improvements in the management of health risks in construction have not kept pace with improvements in safety performance even at the better-organised end of the industry. Historically, a lack of awareness of health risks in construction and individual attitudes towards them have made improvements difficult.

15. Work continues with the industry to deliver an improved understanding of work-related health risks and crucially to promote the active management of health risks rather than a symptomatic treatment of health effects. Much of this work is already having impact: for example, ongoing work from 2010/11 has significantly raised the industry profile of silica risk control.

Supply chain work

16. This work focuses on improving the management of all health risks associated with paving, road and highway work. A health risk management matrix is being developed, and work to examining health surveillance, exposure monitoring requirements, and design considerations is also being carried out. The project is planned to run for the next two years and will produce tools to help reduce the incidence of ill-health due to noise, vibration, respiratory risks and skin exposures to hazardous substances.

Hazardous construction dusts

17. Work continues in conjunction with HSE's Long Latency Health Risks Division (LLHRD) on hazardous construction dusts, particularly respirable crystalline silica. Notable progress has been made in raising awareness of dust control methods during cutting operations, by water suppression and on-tool extraction. Industry consultation is currently underway on practical guidance on the effectiveness and use of this on-tool extraction which provides an alternative where wet control methods are not appropriate.

Asbestos

18. Exposure to asbestos containing materials remains the single most significant occupational risk to health in construction. Those most likely to be exposed to significant levels of asbestos are construction workers engaged in the refurbishment and demolition of existing buildings. Following the successful prosecution of Marks and Spencer for poor management of risk from asbestos during major refurbishment work, an initiative is underway to:

- raise awareness of retail companies about their duties for asbestos during refurbishment in trading stores;

- ensure that arrangements are put in place by retail companies to provide appropriate management controls, including the use of adequate refurbishment surveys and sufficient time and resource for the work to be safely carried out.

The CONIAC Health Risks Working Group

19. This working group aims to raise awareness of common health risks and influence behaviour to eliminate health hazards or improve control of health risks. The group has spent time considering what occupational health means to different stakeholders, as this is subject to widely differing interpretations. The group has also recently produced guidance for employers, employees and service providers on the definition and practical requirements of 'occupational health' as it applies to the construction industry. Its longer term work will be to try to move the industry towards a better vision of what best practice in occupational health risk management looks like, and away from a model which treats ill health effects.

Safety – Strategy Goals: safer workplaces, competence and securing justice

Tower Cranes

20. Alongside work on proposals to revoke the Notification of Conventional Tower Cranes Regulations 2010 engagement continues with the Construction Plant-hire Association in developing industry guidance relating to the erection, dismantling and operation of tower cranes, and this joint working has proved to be an effective mechanism in reaching a very high percentage of the crane hire industry.

Lift Installation and Maintenance

21. Analysis of fatal and serious accidents over recent years has shown an increase in accidents to contractors engaged in the maintenance or installation of lifts. A supply chain initiative to identify causative factors in such accidents and will develop an action plan for delivery by the industry. This work will aim to drive improvements in what is a somewhat fragmented sector with many very small contractors undertaking work.

Work at Height – Fragile Roofs

22. Falls through fragile roofs are a persistent cause of fatal injuries in construction. Plans include publishing simple guidance aimed at encouraging those repairing fragile roofs to adopt safe systems of work which avoid unsafe access. The guidance will advocate access from a tower scaffold or mobile elevating work platform from underneath the roof. This guidance will be targeted at clients (such as those managing industrial estates) as well as contractors.

Mobile Elevating Work Platforms (MEWPs)

23. Analysis of fatal accidents in construction due to MEWPs show that of 16 accidents involving this type of equipment between 2003 and 2010, 9 were due to entrapment between the elevated basket and overhead/adjacent structures. HSE has worked with manufacturers and suppliers as well as contractors to better understand the causative factors of these incidents. It is clear that human factors play a key part, and on this basis HSE has commissioned research to understand these factors better. This research has yet to be published but headline results have been shared with the industry resulting in a number of actions including:

- the development of a range of engineering solutions which might be retrofitted to reduce the likelihood/consequences of such entrapments;
- the publication of comprehensive guidance by the Strategic Forum for Construction Plant Safety Working Group on the potential for entrapment accidents; over the last year this guidance has since been promoted internationally by the Industrial Powered Access Federation (IPAF);
- the development by IPAF, at the behest of contractors, of additional training for operators to supplement the basic training they already undertake to obtain a Powered Access Licence (PAL). The new training, PAL+ is to be launched June 2012

Competence – Strategy Goals: competence and healthier, safer workplaces

Individual Competence

24. CD continues to seek improvements in the health and safety content for undergraduate construction-related degree courses and continued professional development. The Royal Institute of British Architects (RIBA) and HSE commissioned research into the teaching of health and safety in undergraduate schools of Architecture in the UK. The research report, 'Healthy design, creative safety – Approaches to health and safety teaching in undergraduate schools of architecture' was recently published as a contract research report. It recommends:

- students need to understand the principles of health and safety thinking rather than the details of the legislation;
- consideration of 'buildability, maintainability and usability' in the design process is likely to be more engaging and better understood than using the term 'health and safety';
- health and safety should be integrated into design projects where possible rather than being an abstract subject.

25. The key findings from the research report are being shared with stakeholder groups including the Construction Industry Council (CIC) to support the application of learning and provide practical experienced-based learning materials.

Leadership and Worker Involvement – Strategy Goals: worker involvement and support for SMEs

26. The promotion and encouragement of effective leadership and worker engagement is a key priority through site visits and other interventions (eg; strategic engagement with larger contractors). Joint working with the construction industry in developing the Leadership and Worker Involvement Toolkit is complete and the toolkit has been published on the HSE website. The Toolkit provides a range of information and interactive learning exercises to assist employers understand how to reduce accidents, incidents and ill health. In the coming year work started in 2011/12 will continue with larger contractors to promote use of the toolkit both within and outside of their supply chains.

Major Accident Potential in Construction – Strategy Goals: reduce likelihood of low frequency, high impact catastrophic incidents

Fire in Construction

27. Work has continued with the UK Timber Frame Association (UKTFA) in developing guidance on a methodology for determining safe fire separation distances between timber frame buildings under construction and existing properties, and mitigation measures where separation distances cannot be achieved. This work was prompted by an increase in the volume of largely commercial timber frame construction and a number of catastrophic fires on timber framed construction projects in recent years. HSL provided technical support in assessing and developing UKTFA's proposals and testing programme for the key assumptions on which the model was based. The model was launched with HSE input in November 2011. It is anticipated that there will be further refinements to the guidance in the light of experience. HSE input continues along with involvement in the Chief Fire Officers' Association working group on timber frame construction.

Temporary Works

28. A common theme of many significant construction accidents is the failure of temporary works (TW), typically falsework, scaffolds, propping schemes and tower crane foundations. Such incidents have the potential for multiple fatalities. Prompted by a number of such incidents HSE commissioned research through the Construction Industry Research and Information Association (CIRIA) into catastrophic events in construction (HSE Contract Research Report RR834) which identified the failure of TW in 50% of the case studies reviewed by the researchers. HSE has subsequently initiated or stimulated a range of work to improve TW management including:

- visits in 2011/12 by specialist inspectors to large contractors to examine their TW management arrangements, this continues in 2012-13 with the focus on smaller contractors;
- participation in the TW forum established by Institute of Civil Engineers (ICE) and the Institute of Structural Engineers;
- promulgation of the recently revised British Standards Institute Code of Practice BS 5975 on temporary works management;
- a national round of presentations at events organised by ICE and the Association for Project Safety;
- development of an audit methodology to assess the validity of using TW management arrangements as a potential leading indicator or corporate performance in the area of low probability, high consequence events.