

MAINSTREAM RESEARCH NEWS



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□ SCIENCE AND TECHNOLOGY CORPORATE TOPIC GROUPS

HSE has undergone, and continues to undergo, significant internal change, managed through the 'Changing HSE' Programme - aimed at keeping HSE relevant and effective and able to adapt to emerging challenges and opportunities. The Change Programme has considered how best to organise elements of HSE's science and technology staff resources to provide corporate science and technology support for the benefit of all of HSE. As a result, a number of Corporate Topic Groups (CTGs) have been established. CTGs are groupings of topic-based staff, formed initially from teams previously located in HSE's Technology Division and Health Directorate. They now form discrete organisational entities, located as Units for the most part within appropriate operational directorates.

Dr Paul Davies, HSE's Chief Scientist and Director of Corporate Science and Analytical Services commented 'The new CTG system offers HSE an opportunity to ensure that science and technology is – and is perceived as – an equal partner with policy and operations in the development of policy and its delivery'

Currently, 10 CTGs have been established. These are: Health Effects of Chemicals (Industrial Chemical Unit); Pesticides and Biocides; Occupational Hygiene; Noise and Vibration; Construction Division Technology Unit; Process, Materials and Systems Safety; Biological Agents; Radiation Protection; Electrical and Control Systems; and Medical Sciences Unit (still under development). Also under consideration are CTGs for human factors and mechanical engineering.

The current functions of CTGs include:

- developing individual topic strategies for input into HSE's overall Science and Innovation Strategy;
- developing guidance and standards in support of HSE's strategic programmes;
- providing science and technology evidence and advice in support of policy projects;
- providing advice and technical support to operational directorates;
- horizon scanning in topic areas to identify potential future issues for health and safety; and
- providing a head of discipline or topic focus.

Both the Biological Agents and Construction CTGs have an extended role, as some staff also have front line inspection duties, whilst the Health Effects of Chemicals and the Pesticides and Biocides CTGs have statutory duties involving, respectively, the notification of new substances and the approval of new pesticides and biocides.

HSE's Corporate Science and Knowledge Unit (CSKU) has a central role in supporting and helping CTGs to develop and carry out their responsibilities. CSKU will work with the Heads of CTGs and their home Directorates, advising and assisting with the implementation and development of their new roles.

For further information on CTGs or CSKU, please contact the Head of CSKU: Mr B Fullam. (Tel: 0151 951 4115). email: brian.fullam@hse.gsi.gov.uk

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□ WHAT'S NEW?

□ DEVELOPMENT OF NOVEL, RISK-BASED GUIDANCE FOR THE GLAZING OF HIGHLY GLAZED BUILDINGS

(Contractor: Building Research Establishment)
The use of large panes of glass, particularly in tall buildings, presents considerable challenges in the design, construction, maintenance and repair phases of that building. The size and weight of glazing units that can be installed is increasing as the technology available to the manufacturer improves. In turn, this has increased the burden on contractors to handle and install correctly large, heavy panes of glass at potentially high locations. The weight of large glass panes is a considerable difficulty and the use of traditional construction methods, such as those utilising scaffolding, may not be the best approach and more innovative techniques may be required. These issues make working at height with glass difficult and accidents can occur.

This project will consider the current approach to safety in design and construction of highly glazed buildings and will investigate the types and numbers of accidents that occur with such builds. From this initial work, the project will then focus on the development of novel, risk-based, best practice guidance for the design, construction, maintenance and replacement of the glazing elements of highly glazed buildings, which will then be disseminated widely across the industry.

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□ UNDERSTANDING AND INFLUENCING FARMERS' ATTITUDES TO SAFETY

(Contractor: BOMEL Ltd)

In 2000/01 there was a 20% increase in fatal accidents in agriculture. Many of these accidents were as a result of a negative attitude to health and safety in both employers and employees. Research undertaken at that time demonstrated that whilst farmers recognised the hazards they faced in their work, they did not modify their behaviour to work safely and avoid unnecessary risks. The aim of this research is to identify why this is the case.

Understanding the influences that shape farmers' attitudes to health and safety is essential if HSE interventions are to be effective in integrating positive health and safety attitudes as part of the working culture.

A literature study will be undertaken to document the link between hazard awareness and risk taking and will draw on experience in other industries concerning the way risk perception/attitudes can be influenced and changed. The transferability of lessons learned elsewhere to agriculture will be examined. An attitude assessment method will then be developed around defined questions, so that in discussions with farmers, influences, attitudes and behaviours can be delineated and features specific to agriculture can be clearly distinguished. It is intended that the work will lead to the identification of new routes for HSE to exert influence on agricultural safety, through the identification and prioritisation of intervention measures in relation to their potential impact.

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□ PRELIMINARY INVESTIGATION INTO FALL-ARRESTING EFFECTIVENESS OF LADDER SAFETY HOOPS

(Contractor: Safety Squared)

Safety hoops, otherwise known as safety cages or baskets, are steel straps that are fabricated and joined to fixed ladders, so as to enclose the path of a worker when ascending or descending the ladder. Fixed ladders are permanently installed to buildings, structures or plant and typically give access in the vertical or near-vertical plane. National and international legislation, codes of practice and standards require that safety hoops or fall arresting systems are fitted to fixed ladders for the purpose of protecting workers from falls from height.

Safety hoops have the advantage over fall-arresting systems of being a collective form of protection, i.e. they have the potential to protect several people over time, with no supervision, training or special equipment being needed. However, very little is known about the ability of hoops to stop the fall of a worker in contrast to fall-arresting systems, which have a known arresting performance based on procedures in standards.

The overall aim of this work is to update the knowledge base with regard to what safety hoops are and what they are intended to do, with appropriate reference to standards, legislation and current trends. The work will also establish (by preliminary testing) whether or not safety hoops are effective in arresting falls from height.

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□ WHAT'S NEW?

□ MAPPING HEALTH AND SAFETY PERFORMANCE IN THE UK WASTE INDUSTRY

(Contractor: BOMEL Ltd)

The UK waste industry is diverse and is rapidly evolving to meet the changes in Government policy and consumer demand it faces. HSE needs to understand the industry, its make-up and its health and safety performance. HSE also needs to be able to predict and assess changes that are likely to occur within the industry in order to enable it to provide effective influence both within and on the industry.

This project will provide information to define the industry in terms of the processes involved, the number of people employed in each sector and the number and size of companies concerned.

The extent of peripatetic and agency working within the industry will also be considered. Once the industry has been defined, RIDDOR data will be used to identify the occurrence (number and types) of accidents and ill health. The data will be analysed to provide details of the main causes/types of accident by process, occupation and size of company. Particular attention will be focused on workplace transport accidents in terms of operators, site conditions and vehicles. The effects of changes in legislation and consumer demand on the waste industry and the potential for the consequential negative impact on health and safety performance will be identified and considered.

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□ EVALUATION OF HEALTH AND SAFETY STANDARDS – PROCESS MAPPING PROJECT

(Contractor: Technopolis Ltd)

This process mapping exercise is the first part of a broader piece of work to determine the economic impact of using standards as a means of promoting health and safety.

The purpose of this preliminary project is to help define the role of HSE in the process of determining health and safety standards. The project will examine: the reasons for, and assumptions behind, HSE's involvement in the setting of health and safety standards; the resources devoted by HSE to standards work; the process by which HSE decides if, when, where and how to become involved; how HSE relates to, and interfaces with other relevant bodies – both international and national, such as the EU, British Standards Institute, etc. - that are involved in standard setting; and how HSE compares with other European regulators both in terms of the level of resources it devotes (by HSE's own staff and work commissioned by HSE, carried out by others on HSE's behalf) and the activities it performs in relation to the development of health and safety standards.

From this, the project will help to determine the appropriate scale and timing of HSE's involvement in work on standards and will aim to establish a set of criteria for guiding future work in this area.

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□ KNOWLEDGE OF WORKPLACE TRANSPORT HAZARDS AMONGST BRITISH BUSINESS

(Contractor: Health and Safety Laboratory)

Over 70 people die each year in vehicle accidents at work, making workplace transport the second largest cause of fatal accidents in UK workplaces. Most transport-related accidents involve people being struck by moving vehicles, falling from vehicles, being struck by parts of loads falling from vehicles or being injured due to vehicle overturn. It is estimated that 4 out of 5 of these accidents could be prevented. In an attempt to reduce the unacceptably high number of workplace transport accidents, HSC has made workplace transport one of its priority programmes and has set HSE an interim target of a 5% reduction in fatal, major and over 3-day absence workplace transport incidents by 2004, with a further 5% reduction by 2010. In order to establish HSE's success in meeting these targets and to assess the impact of HSE awareness raising initiatives aimed at reducing workplace transport incidents, the current level of knowledge of workplace transport issues amongst British industry will be evaluated.

This project will assess management understanding of workplace transport hazards by developing a questionnaire and conducting a telephone survey across a stratified random sample of businesses. Information will be sought on a wide range of issues and the results will provide a baseline of how far managers in industry understand workplace transport hazards as well as their own legal obligations to manage risks and how they meet these obligations. The work will contribute to the priority programme knowledge base and will help to identify areas where future efforts might best be targeted

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□ WHAT'S NEW?

□ 'TROJAN HORSE' CONSTRUCTION SITE SAFETY MESSAGES

(Contractor: Steel Construction Institute)

Some recent research, carried out on behalf of the Department of Trade and Industry ('Merchants and point of sale of material, DTI 2002), demonstrated that 'best practice' messages can be effectively delivered to small and medium sized companies or enterprises (SMEs) and individual decision makers by using 'Merchant Messages'. This uses messages in point of sale information to bring best practice information directly to the operatives in SMEs – of which there are many in the construction industry. This method takes into account the fact that site operatives do not usually have access to mainstream documentation, allowing them to refresh their awareness of basic health and safety practice. A worker's knowledge of general good practice may have been developed through standard training, but custom, practice and time constraints often conspire against safe practice on a day-to-day basis.

This project will examine the effect of simple safety messages applied to construction components and equipment associated with falls from height (steel frame erection and trussed-rafter roof erection) as a way of delivering relevant health and safety advice to site operatives and raising awareness of risk factors at the point of delivery.

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□ A REVIEW OF CRITERIA CONCERNING THE DESIGN, SELECTION, INSTALLATION, MAINTENANCE AND TRAINING ASPECTS OF TEMPORARILY INSTALLED HORIZONTAL LIFELINES

(Contractor: Safety Squared)

Fall arrest systems (FAS) have been available to workers in the UK for over forty years to protect them from the harmful effects of falling from height. The systems work by stopping the fall of a worker soon after it starts, so that the falling distance is limited at the outset. Due to changes in construction practice, there are many instances where workers require protection when moving in the horizontal plane. Companies requiring protection for their workers have adopted the 'ariel ropeway' principle, where a horizontal cable is temporarily suspended between the extremes of travel and to which a lanyard and safety harness is attached. The idea is that if a worker falls, their fall will be arrested in a similar manner to the way in which an aircraft catches the arrester wire when landing on the deck of an aircraft carrier. The horizontal lifelines (HLL) are fabricated to suit the workplace. Very little engineering analysis or testing is performed to ascertain if the cable could stop a person falling. Accidents have occurred where either the cable or anchors have failed, causing a fall to the ground, or where the stretch in the cable has not prevented contact with the ground. This project will provide a greater understanding of how HLLs perform and key considerations for their use.

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□ DESIGN LOADS AND INTEGRITY ASSESSMENT FOR WAVE IMPACT ON BOW AND DECK STRUCTURES – PHASE 2

(Contractor: Marintek)

There is still considerable uncertainty regarding wave interaction with large volume structures, such as semi-submersibles and concrete gravity-based platforms. Wave impact and green sea incidents in steep storm wave conditions have caused a number of cases of damage on floating installations in north-west Europe. Incidents have included bow slam and green seas on floating production storage and off-loading units (FPSOs), large waves hitting platform decks and local diffraction and run-up around platform columns. A significant amount of research activity has already been carried out on a number of aspects of this problem. However, the results of the various pieces of work undertaken have not yet been combined into a set of consistent design tools.

This project, which HSE is joint funding with industry, aims to establish reliable tools for the prediction of loads and structural response from local impact on bow and deck structures on ships and FPSOs. The tools that are developed will cover the prediction of various elements, such as: the probability of bow slamming and water on deck for ships and FPSOs in random sea; the probability of water hitting the deck in a random sea; slamming loads; the resulting structural responses and the assessment of structural integrity.

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□ EXAMPLES OF RECENTLY COMPLETED PROJECTS

□ SHIFT WORK AND BREAST CANCER – A CRITICAL REVIEW OF THE EPIDEMIOLOGICAL EVIDENCE

(Contractor: Institute of Cancer Research)

The work undertaken on this project has critically reviewed the epidemiological literature that has addressed the possible relation between shift work and breast cancer. Four published studies were identified that have directly investigated whether shift work is associated with the risk of breast cancer. Of these, two were cohort studies and the other two were case-control studies. Each study has different methodological strengths and each has found some significant associations, sometimes with dose or duration response effects, albeit with varying size of risk and to different aspects of shift work.

A potential mechanism for a relation between shift work and breast cancer risk would be via an effect of altered light exposure at night on levels of melatonin or other hormones that might affect cancer risk. However, this mechanism has not been established.

Overall, the evidence for an association of breast cancer risk with shift work is appreciable, but not definitive, and it remains unclear whether any association is causal or a consequence of confounding. The review concluded that further epidemiological research is required in order to clarify the relationship between shift work and breast cancer risk.

The report from this project has been published as [RR132](#) in HSE's RR series.

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□ IN VITRO DETERMINANTS OF PARTICULATE TOXICITY

(Contractor: Institute of Occupational Medicine)

Inhaled particles can induce an oxidative stress response in alveolar epithelial cells that causes the release of chemotaxins leading to pro-inflammatory effects and the impairment of clearance of the particles from the lung.

The aim of this study was to investigate whether the surface area of low toxicity, poorly soluble particles (LSPSPs) was a better 'dose metric' than mass or volume for describing the particles' ability to induce pro-inflammatory effects in vitro. Also, that the in vitro approach developed would become a reliable means of screening the toxicity of particles, with the advantages of being more ethical than animal testing as well as being less expensive. LSPSPs have been associated with the development of lung disease, including fibrosis and cancer.

This study was design to examine a number of pro-inflammatory effects of particles at concentrations less than those producing gross toxicity. The cytotoxicity of particles at a range of doses was assessed by measuring lactate dehydrogenase (LDH) release. Oxidative stress was assessed at an appropriate range of particle doses by measuring intracellular glutathione (GSH) depletion. The chemokine IL-8 (as mRNA and as protein) was also measured to determine pro-inflammatory effects.

Cells from the human alveolar epithelial type II cell line, A549, were used and exposed to ultrafine (carbon black and titanium dioxide) and fine (carbon black, titanium dioxide, barium sulphate and quartz) particles. Ultrafine nickel and cobalt were also used for some assays. Surface area of particles was measured using a gas adsorption technique.

The study found that for a given dust type differences related to particle size were observed, with finer particles (with a greater specific surface area) having greater biological effects in vitro. For LTPSPs, surface area rather than mass was a better predictor of pro-inflammatory effects in vitro. These results suggest that for other LTPSPs, exposure to an airborne respirable dust mass concentration of very small particles would cause more inflammation than the same mass concentration of larger particles of the same chemical composition. Where airborne dusts continue to be monitored in terms of mass, it may be important to characterise the dust in terms of specific surface area, just as some dusts are commonly assessed for composition relevant to surface reactivity (e.g. quartz content).

The dose-response relationship observed in this in vitro assay appears to be consistent with dose-response relationships in vivo (as described in animal inhalation experiments documented in the scientific literature), when dose is expressed relative to the surface area of the exposed cells. This comparability facilitates extrapolation from in vitro test results and it also supports the reliability and validity of the in vitro test system - in addition to it being ethical, rapid and cost effective.

The report from this work will be published shortly in HSE's RR series.

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□ EXAMPLES OF RECENTLY COMPLETED PROJECTS

□ THE PROVISION OF HEALTH AND SAFETY INFORMATION THROUGH ANNUAL REPORTS, WEBSITES AND OTHER PUBLICLY AVAILABLE DOCUMENTS

(Contractor: System Concepts Ltd)

This project examined the annual reports, websites and other publicly available documents of 279 of the UK's top companies and a sample of 42 of the UK Government's Departments, Agencies, Local Authorities and NHS Trusts (hereafter referred to as 'public bodies') for health and safety information. The study was undertaken to examine the effectiveness of Action Points 2 and 13 of HSC's Revitalising Health and Safety Strategy Statement, which challenged the UK's top companies and public bodies to publicly report on health and safety from 2002 onwards.

The results from this project have been published as [RR134](#) in HSE's RR series.

Of the 279 companies whose documents were examined in 2002, 78% were found to make reference to health and safety. This is an increase from 47% in 2000. The number of FTSE 100 companies publicly reporting on health and safety has also increase from 47% in 1995 and 56% in 2000 to 91% in 2002.

Health and safety principles information was most commonly found (98%), with performance information (47%) and target information (21%) featuring less often. The information provided by a number of companies was seen as exemplary and those companies are listed in the study report. The study found that very few or no companies in the following sectors publicly reported on health and safety: investment companies; speciality and other finance; diversified industrials; and software and computer services.

Of the 42 public bodies whose documents were examined in 2002, 79% were found to make reference to health and safety. Health and safety principles information was most commonly found (75%), again with performance information (43%) and target information (54%) featuring less often. A greater proportion of Local Authorities (91%) and NHS Trusts (90%) reported information than Government departments and agencies (67%). Those public bodies whose health and safety information was seen as exemplary are listed in the report.

From these findings it can be concluded that HSC's 'challenge' has so far had a positive and encouraging impact. However, there is still progress to be made in those sectors, such as investment, speciality and other finance, diversified industrials and software and computer services, highlighted above. There is also scope for improving the type and quality of health and safety issues reported, particularly performance related issues.

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□ THE USE OF SEWAGE SLUDGE IN CONSTRUCTION

(Contractor: CIRIA with MWH UK Ltd)

The water industry produces a great quantity of sewage sludge each year. Traditionally, most of this sludge has been recycled to agriculture as a soil improver or disposed of at sea. However, since 1999, disposal of sewage sludge at sea has been prohibited and there is increasing pressure to minimise its use on agricultural land, although this is the preferred disposal route in most cases. The additional environmental and financial implications of disposing of sewage sludge to landfill have led to the exploration world-wide of sustainable and innovative approaches to sludge disposal and recycling. The work on this project has focused on summarising current knowledge and experience of the properties of construction materials made from sewage sludge as well as assessing the potential savings and hazards of using it as a construction material. This has been a club project, part funded by DTI, CIRIA core members, Seven Trent Water, Tarmac Ltd, Thames Water Utilities and HSE.

The work identified that the most viable uses of sludge and incinerated sewage sludge ash (ISSA) in construction materials without changes to the physical properties of the product are: ISSA used as a cement replacement, as a fine aggregate replacement in concrete and asphalt, and as a sand and clay replacement in ceramic materials; sludge cake used in lightweight aggregate manufacture; and dried sludge cake as an alternative fuel in cement manufacture. Where health and safety risks have been identified, these have been assessed to be not significantly greater than risks for the equivalent conventional material. The risks can be overcome by the use of personal protective equipment. As an additional precaution, testing and control regimes may be adopted and the use of sludge derivatives may be limited to particular end uses. Additionally, there are potentially substantial cost savings and environmental benefits from adopting each of the structural uses of sludge and ISSA in comparison to their disposal in landfill sites. As this work was jointly-funded, the report has been published by [CIRIA](#)

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□ EXAMPLES OF RECENTLY COMPLETED PROJECTS

□ REVIEW OF THE COMPETENT PERSON IN ENGINEERING AND MANUFACTURING

(Contractor: Engineering Employers Federation)

The Management of Health and Safety at Work Regulations 1999 require employers to appoint one or more Competent Person(s) to assist them in meeting their legal obligations. The Regulations, the Approved Code of Practice and Guidance on the subject do not prescribe any level of training, qualification or experience to fulfill this role. Consequently, interpretation varies between, and even within, organisations. Competence may be a confusing and ambiguous concept to most employers. This research has aimed to benchmark the position of the nominated Competent Person(s) within the British engineering and manufacturing industry. A survey was carried out across 1332 companies of differing sizes, undertaking a variety of activities. A total of 502 responses were returned (40%). From the results, 6% of companies considered that they did not have a nominated Competent Person, which corresponded with the findings of previous HSE-funded research. The Competent Person was more likely to be senior in the organisation (over half the respondents were directors or senior managers) and experienced (over three-quarters of respondents had worked in the sector for over eight years). Under current legislation, the Competent Person is not required to be a health and safety practitioner. They are encouraged to adopt a flexible approach, be aware of their limitations and call for additional support when required. Over 90% of respondents were clear about their limitations, and would call for assistance when required. Training is an important part of competence. The survey found that the level of training was low in small companies, in companies in the higher accident risk groups and in companies where a director was the Competent Person. Whilst initial H&S training was considered to meet the organisation's needs, many respondents commented that there was a lack of refresher training. The National Health and Safety Standards assess competence in terms of the ability to implement an H&S management system. The survey showed that the key elements of risk assessment and H&S training were likely to be in place, but many companies perceived they were ineffective, indicating a high level of awareness, but difficulty implementing these areas successfully. The Regulations require sufficient resources to be devoted to managing H&S and 50% of respondents could influence the level at which the H&S budget was set. The survey showed that companies had strong beliefs in a management systems approach and that 83% of companies had external registration to either ISO 9000 or QS 9000, whilst nearly 40% companies either held or were working towards the Environmental Standard ISO 14001. In comparison, the number of companies with external registration to an H&S management standard was low (6%). However, with the introduction of the standard OHSAS 180013 there may well be growth in this area in the future. The report from this project will be published shortly in HSE's RR series.

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□ CONTRACTORISATION – ASPECTS OF HEALTH AND SAFETY IN THE SUPPLY CHAIN

(Contractor: Partnership Sourcing Ltd)

The 'Revitalising Health and Safety' Strategy Statement, jointly published by DETR and HSC in 2000, identified a need to better understand health and safety responsibilities in supply chains, as there was a perception that contractorisation was increasing health and safety risks through additional contractual interfaces, particularly where small companies were involved.

Three sectors (events, food processing and health services) representing a range of health and safety cultures were investigated together with two supply chains in each sector, consisting of a combination of customer, first and/or second tier suppliers. The project sought to establish: if the perception of the increased risks introduced by contractorisation was real; how HSE was viewed; and the driving force(s) for health and safety. The work found that in the experience of the people consulted, contractorisation did not present the problems that were initially suspected. The study found a number of positive views highlighting the benefits of contractorisation, including those related to health and safety. In the main, the attitude of the end client determined the way in which the supply chain acted and it was very important to link the health and safety issues to the driving force within the sector (e.g. linking health and safety in food processing to food hygiene). Those consulted felt that HSE's roles as enforcer and as a source of advice did not sit easily together and that this perhaps needed to be further considered. It was felt that clear and simple guidance in an appropriate format was required that included proformas illustrating the type and level of information required for risk assessments and provided clarification on health and safety responsibility. The report from this work has been published in HSE's RR series as [RR112](#).

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□ PROJECT LISTING

NEWLY COMMISSIONED PROJECTS: APRIL – JUNE 2003		
Project No	Project Title	Project Officer
Block 1 - Priority Programmes		
R33.112	Development of novel risk based guidance for the glazing of highly glazed buildings	Mr G Ogilvie. Tel: 0207 717 6966 gordon.ogilvie@hse.gsi.gov.uk
R33.113	'Trojan Horse' construction site safety messages	Mr P Thomas. Tel: 0121 607 6200 paul.thomas@hse.gsi.gov.uk
R46.086	Preliminary investigation into fall-arresting effectiveness of ladder safety hoops	Ms D Brown. Tel: 0207 717 6037 dorothy.brown@hse.gsi.gov.uk
R46.087	A review of the criteria concerning design, selection, installation, maintenance and training aspects of temporarily-installed horizontal lifelines	Mr M Holden. Tel: 0151 951 3725 martin.holden@hse.gsi.gov.uk
R62.098	Understanding and influencing farmer's attitudes to safety	Mr G Ogilvie. Tel: 0207 717 6966 gordon.ogilvie@hse.gsi.gov.uk
R68.086	Knowledge of workplace transport hazards amongst British businesses	Mr G Ogilvie. Tel: 0207 717 6966 gordon.ogilvie@hse.gsi.gov.uk
R68.087	Design of facades for safe access, maintenance and repair	Mr G Ogilvie. Tel: 0207 717 6966 gordon.ogilvie@hse.gsi.gov.uk
Block 2 - Work in the Major Hazards Industries		
R31.089	Residual strength of blast damaged panels on offshore structures	Mr R Martland. Tel: 0151 951 3082 roland.martland@hse.gsi.gov.uk
R31.090	Floating production system: Mooring integrity JIP	Mr C Ransome. Tel: 0151 951 3886 charles.ransome@hse.gsi.gov.uk
R72.084	A national population tool for major accident hazard modeling	Dr S Welsh. Tel: 0151 951 4784 shaun.welsh@hse.gsi.gov.uk
R72.085	Development of an intermediate societal risk methodology	Dr S Welsh. Tel: 0151 951 4784 shaun.welsh@hse.gsi.gov.uk
4019	Design loads and integrity assessment for wave impact on bow and deck structures. Phase II	Mr R White. Tel: 0207 717 6782 Robert.white@hse.gsi.gov.uk
4043	Impact of changes to T&R 5-5 A on jack-up system reliability levels. Phase 2	Mr W Jones. Tel: 0151 951 6796 wayne.jones@hse.gsi.gov.uk
4044	Drafting of proposed standard for umbilical supplied diving apparatus	Mr D Tee. Tel: 0207 717 6923 david.tee@hse.gsi.gov.uk
4046	Pulse pressure testing – Phase 2	Mr A Jackson. Tel: 0114 289 2300 alan.jackson@hse.gsi.gov.uk
4048	OCTAP – Extension of database upkeep package	Ms P Stenhouse. Tel: 0151 951 3888 pauline.stenhouse@hse.gsi.gov.uk
4049	OCTAP – Crane database, Phase 2 – Data collection	Ms P Stenhouse. Tel: 0151 951 3888 pauline.stenhouse@hse.gsi.gov.uk
4050	OCTAP – Crane database, Phase 2 – Software development	Ms P Stenhouse. Tel: 0151 951 3888 pauline.stenhouse@hse.gsi.gov.uk
Block 3 - Compliance		
R33.114	SMART database for failures in structures and buildings	Mr B Neale. Tel: 0151 951 4632 brian.s.td.neale@hse.gsi.gov.uk
R46.085	The development of a novel 'female' form manikin as part of a test facility to assess the integration of personal protective equipment providing fire protection	Ms C Grainger. Tel: 0207 717 6992 carol.grainger@hse.gsi.gov.uk
R53.198	Unmanned testing of open circuit 'octopus' systems	Mr C Sherman. Tel: 0207 717 6759 chris.sherman@hse.gsi.gov.uk
R63.067	Mapping health and safety performance in the UK waste industry	Mr P Harvey. Tel: 02920 263000 paul.area11.harvey@hse.gsi.gov.uk
Block 4 - Mandatory Activities		
R54.089	Occupational health decennial supplement – work related stress and other disorders	Mr D Fletcher. Tel: 0207 717 6004 david.fletcher@hse.gsi.gov.uk
N56.075	HSE annual accident questions in the Labour Force Survey	Mr R Sanger. Tel: 0207 717 6457 ross.sanger@hse.gsi.gov.uk
R63.066	Evaluation of health and safety standards – Process mapping project	Mr A Meads. Tel: 0207 717 6296 andrew.meads@hse.gsi.gov.uk
R68.082	The development of case studies to demonstrate the link between effective management of health and safety and shareholder/business benefit	Ms D Spooner. Tel: 0207 717 6664 debbie.spooner@hse.gsi.gov.uk

□ PROJECT LISTING

NEWLY COMMISSIONED PROJECTS: APRIL – JUNE 2003		
Project No	Project Title	Project Officer
Block 4 - Mandatory Activities (cont.)		
R72.086	Chemical Essentials (CE): System rules and pathways for generating safety advice and consideration of system interdependencies for the CE system	Mr D Fletcher. Tel: 0207 717 6004 david.fletcher@hse.gsi.gov.uk
RECENTLY COMPLETED PROJECTS: APRIL – JUNE 2003		
Project No	Project Title	Project Officer
Block 1 - Priority Programmes		
R31.085	The use of sewage sludge in construction	Mr S Cartney. Tel: 0151 951 4838 stephen.cartney@hse.gsi.gov.uk
R33.068	Site and personal factors in accident causation in the construction industry	Mr T Allan. Tel: 0207 556 2211 trevor.allan@hse.gsi.gov.uk
R33.091	Use and effectiveness of mobile elevating work platforms (MEWPs) for tree work	Mr A Hodgkinson. Tel: 02476 696518 adrian.hodkinson@hse.gsi.gov.uk
R53.178	Pedestrian slipping – The efficacy of entrance matting	Mr S Taylor. Tel 0151 951 4603 stephen.td.taylor@hse.gsi.gov.uk
R54.082	Identification of good practice in stress prevention/management and beacons of excellence in preventing stress in the workplace	Ms R Cousins. Tel: 0151 951 5711 rosanna.cousins@hse.gsi.gov.uk
R59.041	Dose constraints for comforters and carers	Ms J Nettleton. Tel: 0151 951 4789 jo.nettleton@hse.gsi.gov.uk
R64.088	The evaluation of the slips roadshow training seminar	Mr M Thomas. Tel:0207 717 6686 mark.thomas@hse.gsi.gov.uk
R67.147	A study of the dynamics of pedestrian stair use	Mr S Taylor. Tel 0151 951 4603 stephen.td.taylor@hse.gsi.gov.uk
R72.070	Falls from height – Prevention and risk control effectiveness	Mr M Holden. Tel: 0151 951 3725 martin.holden@hse.gsi.gov.uk
Block 2 - Work in the Major Hazards Industries		
R01.025	Use of fibre optics in potentially explosive atmospheres	Mr P Goodier. Tel: 0114 289 2300 peter.goodier@hse.gsi.gov.uk
R04.082	Offsite risk reduction through structural fire protection of chemical warehouses	Mr A Tyldesley. Tel: 0151 951 4769 alan.tyldesley@hse.gsi.gov.uk
R05.107	Determining the potential/accidental explosion hazard from aluminium nitrate: Phase 1 – literature review and analysis	Dr S Welsh. Tel: 0151 951 4784 shaun.welsh@hse.gsi.gov.uk
R32.068	Pipeline defect assessment manual: Version 2	Mr B McCullough. Tel: 0207 717 6922 bruce.mccullough@hse.gsi.gov.uk
R31.064	Critical assessment of mining cage suspension gear	Mr P McGuinness. Tel: 0114 291 2300 peter.mcguinness@hse.gsi.gov.uk
R33.081	Stability and support of the sides of mine roadways	Mr J Arthur. Tel: 0114 291 2300 jim.arthur@hse.gsi.gov.uk
R33.109	Information cuttings: Conditions, appraisal and remedial action	Mr G Kerr. Tel: 0114 275 3000 gerald.kerr@hse.gsi.gov.uk
R71.043	Risk assessment : Adoption by industry and identifying pitfalls	Mr D Carter. Tel: 0151 951 4570 dave.hid.carter@hse.gsi.gov.uk
R72.034	Computational fluid dynamics modeling of flashing jets	Dr S Porter. Tel: 0151 951 4626 steve.porter@hse.gsi.gov.uk
R72.056	Development of an underground fire risk assessment	Mr M Williams. Tel: 0151 951 4866 mansel.williams@hse.gsi.gov.uk
3731	Long term health effects assessment with hyperbaric work	Mr D Tee. Tel: 0207 717 6923 david.tee@hse.gsi.gov.uk
3894	Decommissioning and removal of the concrete gravity structures in the UK continental shelf	Mr G Morrison. Tel: 01224 252500 graham.morrison@hse.gsi.gov.uk
3915	Offshore industry internet incident database	Mr G Clark. Tel: 01603 828000 gordon.clark@hse.gsi.gov.uk
3917	Review of jack-up structural modeling	Mr M Birkinshaw. Tel: 0207 717 6775 malcolm.birkinshaw@hse.gsi.gov.uk
3920	Failure modes of steel panels experimental research	Mr M Birkinshaw. Tel: 0207 717 6775 malcolm.birkinshaw@hse.gsi.gov.uk
3944	Super duplex steels in HP/HT wells	Mr D Scott. Tel: 01224 252500 dave.hid.scott@hse.gsi.gov.uk

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RECENTLY COMPLETED PROJECTS: APRIL – JUNE 2003		
Project No	Project Title	Project Officer
Block 2 - Work in the Major Hazards Industries (cont.)		
3988	Safety implications for offshore maintenance of using proprietary management/scheduling software	Mr B Miles. Tel: 0207 717 6685 bob.miles@hse.gsi.gov.uk
3932	Transient vibration guidelines for fast acting valves	Mr R Sharma. Tel: 0207 717 6925 ravi.sharma@hse.gsi.gov.uk
3953	Beyond elastic response to strong vibration loads	Mr G Morrison. Tel: 01224 252500 graham.morrison@hse.gsi.gov.uk
3994	Margins of safety in FPSO hull strength	Mr R White. Tel: 0207 717 6782 robert.white@hse.gsi.gov.uk
4000	Explosion resistance of floating offshore installations – sensitivity analysis	Mr M Nunn. Tel: 01224 252500 marc.nunn@hse.gsi.gov.uk
4038	Review of external stress corrosion cracking of 22% chromium duplex stainless steel - Phase 1: Operational data acquisition	Mr C Robbins. Tel: 01224 252500 chris.robbins@hse.gsi.gov.uk
Block 3 - Compliance		
R42.084	Development of samplers for selective fibre sampling	Ms C Northage. Tel: 0151 951 4464 chris.northage@hse.gsi.gov.uk
R42.108	Improved dust sampling instruments for mines	Mr B Leeming. Tel: 0114 291 2300 bob.leeming@hse.gsi.gov.uk
R51.155	Colophony fume respiratory allergens	Dr N Williams. Tel: 0121 607 6200 nerys.williams@hse.gsi.gov.uk
R51.179	Oxidative stress caused by occupational exposure to metal particles	Mr A Griffin. Tel: 0151 951 4674 adrian.griffin@hse.gsi.gov.uk
R51.238	The procurement of welding data – Phase 2	Dr A Phillips. Tel: 0151 951 4753 andy.phillips@hse.gsi.gov.uk
Block 4 - Mandatory Activities		
R36.087	Methodology for the design, integration and validation of low complexity electrical/electronic/programmable electronic safety-related systems	Mr S Frost. Tel: 0161 952 8200 steve.frost@hse.gsi.gov.uk
R41.116	Continued appraisal of domestic carbon monoxide alarms	Ms P Bradley. Tel: 0151 951 4202 penny.bradley@hse.gsi.gov.uk
R48.119	The use of RIDDOR reports as an additional intelligence source in construction	Mr T Allan. Tel: 0207 556 2211 trevor.allan@hse.gsi.gov.uk
R51.109	Exposure response in occupational asthma	Dr J Osman. Tel: 0151 951 4535 john.osman@hse.gsi.gov.uk
Z51.125	Study of health effects of exposure to grain dust	Mr R Elliott. Tel: 0151 951 3835 richard.elliott@hse.gsi.gov.uk
R51.146	Cellular aspects of occupational asthma	Dr C Elliott-Minty. Tel: 0151 951 4217 celia.elliott-minty@hse.gsi.gov.uk
R51.150	Dislodgeable residues from surfaces treated with pesticides	Mr A Garrod. Tel: 0151 951 4667 andrew.garrod@hse.gsi.gov.uk
R51.153	Effects of chemical exposure on male reproductive system	Dr M Topping. Tel: 0207 717 6247 michael.topping@hse.gsi.gov.uk
R51.184	Biocide determination using novel techniques	Dr A Saleem. Tel: 0151 951 3040 ahsan.saleem@hse.gsi.gov.uk
R51.190	The effectiveness of barrier creams for controlling exposure	Mr J McAlinden. Tel: 0151 951 4525 john.mcalinden@hse.gsi.gov.uk
R51.201	Development of a robust and accurate method for the in vitro identification of contact allergens	Mr I Indans. Tel: 0151 951 4881 ian.indans@hse.gsi.gov.uk
R51.216	Development of a method to assess biologically relevant dermal exposure	Mr P Evans. Tel: 0151 951 3281 paul.evans@hse.gsi.gov.uk
R51.217	In-vitro determinants of particulate toxicity	Mr R Cary. Tel: 0151 951 4820 richard.cary@hse.gsi.gov.uk
R52.145	Evaluation of HSE's ACoP and guidance 'Legionnaires Disease: The control of Legionella bacteria in water systems.	Ms S Senior. Tel: 0207 717 6266 sarah.senior@hse.gsi.gov.uk
P56.075	HSE annual accident questions in the Labour Force Survey	Mr G Stevens. Tel: 0151 951 4607 graham.stevens@hse.gsi.gov.uk
T56.075	HSE annual accident questions in the Labour Force Survey	Mr G Stevens. Tel: 0151 951 4607 graham.stevens@hse.gsi.gov.uk

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RECENTLY COMPLETED PROJECTS: APRIL – JUNE 2003		
Project No	Project Title	Project Officer
Block 4 - Mandatory Activities (cont.)		
R56.086	Reporting of work-related illness. The occupational disease intelligence network (ODIN)	Dr J Osman. Tel: 0151 951 4535 john.osman@hse.gsi.gov.uk
R56.097	Occupational ill health in the local authority enforced sector	Mr A Plom. Tel: 0207 717 6493 alan.plom@hse.gsi.gov.uk
R56.102	Shift work and breast cancer: A critical appraisal	Mr D McElvenny. Tel: 0151 951 3352 damien.mcelvenny@hse.gsi.gov.uk
R62.094	Review of the competent person in engineering and manufacturing	Ms A Orr-Ewing. Tel: 0207 717 6406 angela.orr-ewing@hse.gsi.gov.uk
R62.096	Industry sector database	Mr P Rimmer. Tel: 0151 951 4045 peter.rimmer@hse.gsi.gov.uk
R64.080	Social exclusion, disadvantage and health and safety	Mr S Pointer. Tel: 0207 717 6495 steve.pointer@hse.gsi.gov.uk
R64.082	Review of the practical implementation of the Use of Work Equipment Directive (UWED) and the Amended Directive (AUWED)	Mr D King. Tel: 0207 717 6349 david.king@hse.gsi.gov.uk
R68.064	Identification of industry sectors in which employers perceive their business operates	Mr A Gay. Tel: 0151 951 4715 andy.gay@hse.gsi.gov.uk
R68.074	Framework for job retention and vocational rehabilitation – the employer/workplace approach	Ms J Manson. Tel: 0207 717 6229 june.manson@hse.gsi.gov.uk
R68.078	Contractorisation – aspects of health and safety in the supply chain	Ms C Grainger. Tel: 0207 717 6992 carol.grainger@hse.gsi.gov.uk
R68.080	The provision of health and safety information through company accounts, annual reports and other publicly available documents	Ms D Spooner. Tel: 0207 717 6664 debbie.spooner@hse.gsi.gov.uk
R71.051	Risk assessment of inhaled particles using a physiologically-based mechanistic model	Mr R Carey. Tel: 0151 951 4883 richard.carey@hse.gsi.gov.uk

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RR88	Component-based calibration of North West European annex environmental load factors to ISO fixed steel offshore structures code 19902
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RR109	Identification of industry sectors in which employers perceive their business operates
RR110	Farm Child UK: A report on the nature and incidence of accidents and zoonoses to children on farms and in the countryside
RR112	Contractorisation: Aspects of health and safety in the supply chain
RR116	Falls from height – Prevention and risk control effectiveness

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