MAINSTREAM RESEARCH NEWS

THE NEWSLETTER FOR HSE'S MAINSTREAM SCIENCE AND TECHNOLOGY PROGRAMME

ISSUE 20 **APRIL 2002**

☐ INTRODUCTION OF NEW ARRANGEMENTS FOR THE MANAGEMENT OF SCIENCE AND INNOVATION ACTIVITIES ACROSS HSE

New arrangements for the management of science and innovation (S&I) activities within HSE were introduced on 1st April 2002

The new arrangements are consistent with the Block/Programme structure set out in the HSC/E Strategic Plan 2001-2004 and mirrored in the recently published HSC/E Strategic Research Outlook document, which describes in detail HSC/E's present S&I interests and future S&I requirements.

In a shift away from the technical subject based approach used previously, the changes are intended to make more transparent the link between HSC/E's S&I activity and its business aims and objectives.

S&I activities are now managed as four Blocks: Priority Programmes (covering Falls from Height, Workplace Transport, Musculoskeletal Disorders, Work-related Stress, Construction Sector, Agricultural Sector, Health Services Sector and Slips and Trips); Work in the Major Hazard Industries; Securing Compliance; and Mandatory Activities. The Blocks are the responsibilty of HSE's Deputy Director Generals, Kate Timms and Justin McCracken and are managed on their behalf by:

Sandra Caldwell; Paul Davies; Adrian Ellis; and Peter Graham, respectively.

Each Block has its own S&I Coordinator, responsible for: the formulation, management and monitoring of S&I activity within a Block; utilisation and management of the Block's allocation from the S&I budget; and providing an interface for communication on S&I matters between Blocks. The S&I Coordinators are as follows:

Carol Grainger and Keith Wiley (Priority Programmes); Neil Morton (Work in Major Hazard Industries); Adrian Griffin (Compliance); and Mike Tonge (Mandatory Activities).

Over the coming months, a number of dedicated Project Officers (POs) will be recruited to each Block. POs have an important role in managing S&I projects and activity within/between Blocks on behalf of the HSE customer for the work. They will be involved in all stages of an S&I project's life from planning the work with the customer to evaluation of the deliverables.

Regarding advisory arrangements, an S&I Strategy Committee, chaired by the Chief Scientist will provide a steer and oversee, at the corporate level, HSE's S&I activities. The Chief Executive of the Health and Safety Laboratory and the Chief Scientist of DTLR will be invited to attend the Committee as advisors.

Each Block will have an S&I Advisory group, providing strategic direction to the S&I spend within a Block. These groups will be informed by Communities of Practice (CoP), covering both business and topic areas. The Business CoPs will be critical in providing a business focus and in implementing Guidelines 2000

The Topic CoPs will provide a focus for scientific and technical issues on topics of interest within and across Blocks.

For further information contact:
Mr A Brown (0114 289 2321)
alan.brown@hse.gsi.gov.uk

In this Issue.....

Please forward any comments on this issue or items for inclusion in future issues to:

Simon Armitage
RSU Sheffield
0114 289 2647

☐ WHAT'S NEW?

☐ INTERACTIVE CD-ROM PROJECT TO ASSESS THE COMPETENCE OF WORKPLACE TRANSPORT OPERATORS

(Contractor: AIMS Solutions Ltd.)

Current UK health and safety legislation requires employers to provide information, instructions and training not only to those who actually use work equipment, but also to employees supervising or managing its use. Training ensures that the employee is familiar with the work equipment and provides the employer with assurance that the employee is competent to operate the equipment safely within the work environment.

Considering workplace transport operators, following initial training it would be expected that their competency levels would be higher than at the outset. However, there is no consistent method used by employers to gauge this progression. Stakeholders have adopted a method of periodic assessment, but there is currently no specific requirement on when and how often this assessment should be undertaken.

The aim of this project is to research, develop and produce interactive software to assess the competence of operatives in charge of workplace transport. Detailed scenarios covering the operation of forklift trucks, construction plant and agricultural machinery will be included, as well as vehicle/pedestrian segregation. It is intended that this work will provide employers with an additional method of assessment to feed into their existing competency assessment procedures.

For further information contact:
Mr K Jewitt (020 7717 6059). email: kevin.jewitt@hse.gsi.gov.uk

☐ FRAMEWORK FOR JOB RETENTION AND VOCATIONAL REHABILITATION. THE EMPLOYER / WORKPLACE APPROACH

(Contractor: Middlesex University)

Securing Health Together - an occupational health strategy for Great Britain - promotes good health and addresses the consequences of poor health.

HSC/E, along with other Government Departments, is working to help people, who have been ill or injured, return to work. A particular aspect of this goal is to facilitate employers to address job retention and vocational rehabilitation within their businesses. This cuts across all aspects of employment and health. Whilst some advice on particular aspects already exists (together with experience of practice), there remain substantial gaps which need to be filled in a pragmatic and joined-up manner.

The purpose of this research is to provide an expert review of existing information and develop from it a conceptual framework describing all aspects of an employer based approach to successfully retain staff in employment following long term absence from work due to sickness or injury.

For additional information contact:
Ms J Manson (020 7717 6229)
email: june.manson@hse.gsi.gov.uk

☐ GENERAL PRACTITIONER-BASED SCHEME FOR MONITORING PESTICIDE RELATED ILLNESS

(Contractor: University of Leicester)

Pesticides can only be put on the market after they have been through a rigorous scientific scrutiny, on the basis of which they are approved by Government Ministers. To support this approvals process, the Government seeks to collect as much information as possible about any health effects of pesticides which may arise from their use once on the market. Their continues to be a high level of public and political interest in pesticide related illness. An Inter-Departmental Group recently reviewed the existing arrangements for monitoring the ill-health effects of pesticide exposure. The review found no significant problems with existing arrangements, but did note the lack of information on cases of ill-health dealt with by General Practitioners (GPs). Hence, this project will assess the extent and nature of pesticide-related illness seen by GPs in Great Britain and will establish the potential for and cost of setting up permanent arrangements to collect data from this source.

For additional information contact:
Mr A Spence (0151 951 4556)
email: alan.spence@hse.gsi.gov.uk

☐ WHAT'S NEW?

☐ REVIEW OF THE COMPETENT PERSON IN ENGINEERING AND MANUFACTURING

(Contractor: Engineering Employers Federation)

Competent managers and workers are an important element in the successful achievement of the targets set in the Government's and HSC's Revitalising Health and Safety strategy statement.

Regulation 7 of the Management of Health and Safety at Work Regulations requires companies to appoint one or more competent persons to assist with health and safety. This person may either be employed directly by the company or may be external, such as a consultant.
In an initial move towards clarifying competence and to inform HSE policy-making, this research project will study the engineering and manufacturing sectors. The work to be undertaken will involve a review of existing information regarding the guidance requirements for competence levels and will establish the knowledge, experience, training and other skills held by the competent person in a wide variety of organisations within the engineering and manufacturing sectors. This will include both job related and personal factors, reflecting the increasingly important role of the competent person as a communicator/influencer. The research will investigate organisations' understanding of competence requirements and will compare the findings for actual competence levels with perceived requirements and guidance requirements. The work will consider why any differences identified might occur and how these could be addressed.

For further information contact:
Ms A Orr-Ewing (020 7717 6406). email: angela.orr-ewing@hse.gsi.gov.uk

☐ DUST EXPLOSIONS IN COMPLEX GEOMETRIES

(Contractor: Health and Safety Laboratory)

The factors controlling the nature of dust explosions in single vessels have been the subject of research projects over many years. Some work has also been carried out on more complex scenarios, such as systems where pairs of vessels have been linked together. These can generate higher pressures and more violent explosions. However, the most destructive explosions occur when a dust explosion spreads through a large plant or building. Such systems are too complex to study by direct experimentation and modelling is required.
This research project has arisen from discussions across Europe about the future direction of research into the factors influencing dust explosions. The work will involve the measurement of more fundamental parameters of flame speeds and turbulence, and the construction of a computational fluid dynamics (CFD) model to allow the consequences of a dust explosion in a complex system to be assessed more reliably.

For additional information contact:
Mr A Tyldesley (0151 951 4769)
email: alan.tyldesley@hse.gsi.gov.uk

☐ THE COLLECTION OF SPECIALIST-BASED DATA ON WORK RELATED ILL HEALTH FOR THE PERIOD 2002-2006

(Contractor: University of Manchester)

'Securing Health Together' and 'Revitalising Health and Safety' set a number of targets for reducing the health and safety failures in Great Britain. Performance against these targets will be determined by setting a series of baselines and measuring progress against these using data from a range of sources, but with a leading source providing key data which would then be interpreted in the light of information from other sources. The leading source for work related ill health incidence data will be information gathered from specialist physicians. The purpose of this research project is to maintain and develop a network of specialist physicians providing a flow of information and so allowing the incidence of work-related ill health in the UK workforce to be estimated and trends to be measured.

For additional information contact
Dr J Osman (0151 951 4535)
email: john.osman@hse.gsi.gov.uk

☐ WHAT'S NEW?

☐ THE SELECTION AND USE OF FALL PREVENTION AND PROTECTION METHODS WHEN WORKING AT HEIGHT

(Contractor: Glasgow Caledonian University)

During 2000, the UK construction industry suffered 84 fatal accidents. Almost half of these fatalities were due to falls from height, with around half of these due to falls from roof edges and falls through a roof. Falls from height also account for a significant number of accidents in other industries, such as incidents where personnel or the building owner have fallen from height during routine repair or maintenance operations.

In accordance with the principles of the risk prevention and protection hierarchy, there are six key areas which the work programme for this research project intends to evaluate in order to identify the current state of best practice when working at height. These are the use of: safety nets during roof work; purlin trolley systems during industrial roof work; air inflated safety bag systems when working at height and/or near a leading edge; cable-based fall arrest systems as a means of protection when working at height; fall arrest systems when erecting and dismantling scaffold and access and protection systems for use by building owners during short term routine and/or unforeseen maintenance work.

The practical usefulness of these methods of fall protection will be investigated through a combination of expert opinion and experiences drawn from live field trials on case study sites.

The general area of study covered by this research proposal will soon be subject to the requirements of 'The Temporary Work at Height Directive (recently adopted). Future regulation may also address the selection and use of access equipment for temporary work at height.

For additional information please contact:
Mr A Maitra (0151 951 4634). email: hash.maitra@hse.gsi.gov.uk

☐ ASSESSMENT OF ELECTRIC AND MAGNETIC FIELD EXPOSURES (EMF) OF PHYSIOTHERAPISTS WORKING IN HOSPITAL DEPARTMENTS

(Contractor: Brunel University)

The World Health Organisation International Electric and Magnetic Field (EMF) Project produced an Agenda for Research that identified a number of significant gaps in the state of our knowledge with regards to EMFs. In particular, little is know about occupational exposures to EMFs in the health services. Physiotherapists, for example, are deliberately exposing patients to levels that are intended to cause tissue heating. As a result, this group of workers are very likely to receive significant adventitious exposures while tending their patients. This project will assess individual physiotherapist's exposures to Electric and Magnetic Fields (EMFs) at work and will compare measured and estimated exposures with national guidelines. The work will also identify features of Physiotherapy Units that may be influencing the exposure of staff to EMFs

For further information contact:
Mr A Barrett (0151 951 4819)
email: arwel.barrett@hse.gsi.gov.uk

☐ DEVELOPMENT OF FUNCTIONAL MAGNETIC RESONANCE IMAGING (fMRI) TO MEASURE THE CENTRAL NERVOUS SYSTEM RESPONSE TO CHRONIC BACK PAIN

(Contractor: University of Liverpool)

The mechanisms that cause low back pain (LBP) are not well understood, although heavy physical work is often reported as a causative factor. Previous HSE funded work (carried out between 1987 and 1992) studied lumbar disc disease in male workers from five different occupations using MRI. However, the relationship between occupation, LBP and MRI appearance remained speculative, this was partly due to the short duration of the follow-up.

The opportunity has arisen to examine the same group of workers that were studied ten years ago. The research will asses changes in activation of various brain regions in patients with chronic low back pain in response to various stimuli and will explore the association between type of brain activation, chronicity of pain and degree of poor coping behaviour.

For further information contact:
Mr C Quarrie (0151 951 3052)
email: chris.quarrie@hse.gsi.gov.uk

☐ EXAMPLES OF RECENTLY COMPLETED PROJECTS

☐ WORK ENVIRONMENT, ALCOHOL MISUSE AND ILL HEALTH

(Contractor: University College London)

This project extended previous HSE-funded research, which examined the influence of work on self reported ill-health and sickness absence. The influences of the psychosocial work environment on incident coronary heart disease and diabetes, the influences of change in work risk factors on health and the contribution of alcohol consumption and alcohol dependence to absence from work (attributable to accidents) was investigated. This research has been carried out in the longitudinal Whitehall II cohort study of 10308 male and female British civil servants, aged 35-55 on entry to the study in 1985. This cohort of civil servants has been followed up since 1985 with repeated phases of data collection every 2-3 years. This research includes analyses of incident data over an average ten year follow up. The initial response rate to the study was 73% and there has been good follow up of participants since then. The longitudinal design allows work characteristics to be related to the development of subsequent illness after taking account of pre-existing ill-health.

High job demands, low decision latitude and effort reward imbalance were found to be related to increased incidence of coronary heart disease. Work characteristics were not associated with the incidence of diabetes, with the exception of effort reward imbalance which was found to be related to increased incidence of diabetes in men. These effects were not explained by conventional risk factors such as smoking and blood pressure. Adverse changes in levels of work characteristics, particularly lowering of social support at work, predicted worsening mental health functioning in men and women. The effects of change in work characteristics on physical health and coronary heart disease were modest, although there was some evidence to support a longer term influence on physical functioning and longstanding illness. Alcohol consumption was found to be related to risk of sickness absence due to injury with increased risk seen at moderate levels of alcohol consumption. "Binge" drinking and alcohol dependence were also found to be related to absence due to injury. The report from this work has been published as CRR 422

For further information contact:
Dr C MacKay. Tel 0151 951 4585. email: colin.mackay@hse.gsi.gov.uk

☐ RISK ASSESSMENT AND PLAYGROUND SAFETY - REVIEW OF LITERATURE ON ACCIDENT/INJURY PREVENTION IN THE UK

(Contractor: Middlesex University)

This research carried out the first detailed strategic risk assessment of playgrounds in the UK for well over a decade. The risk of injury in UK playgrounds was found to be modest in comparison with the risks of many other activities in which children are encouraged to participate. The main risk factors on playgrounds were identified as behaviour, equipment height and body orientation in falls to the ground. The scientific evidence of the effectiveness of compliant undersurfacing as a risk mitigation measure was mixed. Some research pointed to a positive benefit, but the associated risk factor is relatively small. The question remains of how the measure affects child safety in the round and whether the benefit, if accepted, is sufficient to meet the British safety criterion of reasonable practicability. It has been noted that over the past decade there have been many playground safety interventions, coupled with less usage of playgrounds. However, there has been no sign of a downward trend in overall numbers of injury cases. Play provision may have reduced in quantity and also in quality, due to concerns over accidents, litigation, cost of safety measures, etc. Such concerns are tangible, whereas the benefits of play are less easy to quantify. The balance between play benefits (including the opportunity to experience real risk) and safety on playgrounds is considered to be a social not a scientific matter, and may warrant careful reconsideration. Risk management measures have been proposed which may be helpful, and risk assessment may be usefully applied to the activities of children both on and off playgrounds in order to safeguard against plausible risk transfer mechanisms and optimise child safety overall. The report from this work will be published in HSE's CRR series.

For further information contact:
Mr G Howat (0141 275 3000). Email: gavin.howat@hse.gsi.gov.uk

☐ EXAMPLES OF RECENTLY COMPLETED PROJECTS

☐ PROVING INSPECTION WORKS

(Contractor: Amey VECTRA Ltd)

The aim of this work was to identify a systematic approach for the evaluation of inspection effectiveness within HSE's Field Operations Directorate (FOD) in response to increasing demands to identify outcome measures (in addition to traditional output measures) suitable across the range of HSE FOD inspection activities.

The initial focus for the research was based on a combination of interviews and workshops with HSE staff and a duty holder questionnaire to establish the objectives and expectations of inspection as perceived by HSE's stakeholders. These expectations were used to evaluate the potential health and safety performance indicators proposed in the literature, in order to devise a suite of indicators suitable for use in a regulatory context as there proved to be no immediately obvious choice of suitable indicators based on previous research. A framework of the relationship between HSE inspection activity, national targets and duty holder action (in promoting health and safety) was developed to account for the fact that improvements in health and safety within a particular workplace can only be achieved by the management and workforce, preferably working in tandem. HSE's role can best be described as a catalyst. While inspectors can facilitate change and improvement, they cannot actually deliver it. Even the most stringent enforcement cannot ensure that changes are followed through and maintained over an extended period of time. The considerable range of expectations identified (and relative priorities ascribed to these) create a situation where the measurement of the effectiveness of inspection would be extremely complex with no possibility of a simple or even straight forward measurement approach. However, through a series of iterations relating possible indicators to inspection, a final measurement 'tool kit' was developed covering the following: direct indicators (reflecting direct action); indirect indicators (one set reflecting the advice role of the inspector and another covering campaign and project activities); duty holder awareness measures (based on questionnaires); and internal enabling indicators (reflecting HSE resource, infrastructure and organisation re: the delivery of inspection).

It was concluded that a common suite of indicators used across the range described above could be used to provide a holistic evaluation. Such an evaluation would build evidence to establish a balance of probability argument, given that a direct causal link between inspection and national improvement would be very difficult to prove. The report from this work will be published in HSE's CRR series.

For further information contact

Mr M Cosman (01179 886000). email: mike.cosman@hse.gsi.gov.uk

☐ PERCEIVING AND ENACTING THE RISKS OF STRESS

(Contractor: University of Nottingham)

The practice of systematic assessment of psychosocial hazards in the workplace is required by health and safety legislation. Risk assessment forms part of the process of risk management, but risk management also requires effective risk communication in order that people can be informed of hazards and how to minimise or eliminate exposure or consequent harm. Effective risk communication requires knowledge of peoples' understanding of hazards and attendant risks so that messages can be tailored to suit the audience.

This research explores understandings, or mental models, of psychosocial hazards. Through a series of studies the work has shown that people have elaborate mental models of psychosocial hazards; that these models predict subsequent levels of important personal and organisational phenomena, such as well being and performance; and that variation in mental models of psychosocial hazards might be explained by a limited number of dimensions. An instrument to assess mental models of psychosocial hazards has been developed and validated and the report from this work (to be published in the CRR series) explains the implications of a cognitive approach for psychosocial risk management and how to use the instrument developed during this research for psychosocial risk management.

For further information contact:

Mr T Shaw (0151 951 4552). email: trevor.shaw@hse.gsi.gov.uk

☐ EXAMPLES OF RECENTLY COMPLETED PROJECTS

☐ SENSORY AND AUTONOMIC FUNCTION AND ULTRASOUND IMAGING OF

NERVE MOVEMENT IN THE UPPER LIMB

(Contractor: University College London)

The purpose of this work was to examine the neurophysiological function of small sensory and autonomic and large sensory fibres in repetitive strain injury (RSI) patients and in office workers who intensively use visual display screen equipment. Flare response in relation to iontophoresis of histamine was used as a measure of small sensory C-fibre function, vasoconstriction following ice challenge to the neck as a measure of efferent autonomic function and vibration threshold as a measure of large sensory (A β fibre) function.

Significant differences on all three measures of nerve fibre function were found in the RSI patient group and on two measures for the office workers. Vibration thresholds were elevated by 47% in patients and by 21% in office workers. Flare areas were reduced by 33% in patients and by 30% in office workers. Reflex vasoconstriction was reduced by 20% in patients but showed no significant changes in office workers. In a separate part of the study, ultrasound imaging of the median nerve at the proximal carpal tunnel was used to measure the amount of nerve movement occurring (during 30 degrees of wrist extension to 30 degrees of flexion) in a group of office workers. Four of the ten office workers studied showed a very small or reversed nerve movement. Overall, for RSI patients a clear picture emerged of modest reductions in peripheral nerve function, involving both large and small fibre systems. Such changes would be consistent with the hypothesis that a minor neuropathy is present in diffuse RSI. Office workers had a similar trend, although not so marked, indicating possible early changes in peripheral nerve function in this occupational group. The report has been published as CRR 417

For further information contact:
Dr R McCaig (0151 951 4120). email: ron.mccaig@hse.gsi.gov.uk

☐ THE EFFECTIVENESS OF LABELLING OF PESTICIDES

(Contractor: University of Plymouth)

Before chemical products enter the supply chain their hazardous properties and the potential risks they pose have to be identified. This is usually done via the product label, but some chemicals are subject to more specific controls. In the UK all pesticides have to be approved by Ministers under the Control of Pesticides regulations before they can be marketed or used. Each product is approved subject to certain conditions and the label is often the only way of conveying this information to the user, so it is essential that the label contains suitable and sufficient information for safe use, in a clear, concise and understandable format. An initial study into pesticide labelling indicated that labels are not read thoroughly or are not understood, since the instructions for safe use are not followed. Consequently, this further work was undertaken to develop or counter this finding and to identify changes that would improve levels of compliance and form the basis for developing policy on labelling. A survey of current pesticide labels was carried out and a taxonomy for describing and classifying the information presented to users was developed. Safety information was found to be presented as an instruction rather than as a hazard or consequence statement. To understand how well current safety information was understood (and to evaluate the efficacy of presenting that information in different ways) a procedure outlined in ISO 9816 was adopted. Experimental studies on direct compliance behaviour showed that for all users, inclusion of safety information in the directions for use section of the label resulted in the highest levels of compliance. The lowest levels of compliance were seen when: for amateurs, the safety information was presented in the additional leaflet; and for professional users, when the safety information was presented in the statutory box or precautions section of the label. A final study tested predictions made in the light of these findings. Personal instruction statements, presented in the directions for use section of the label were successfully predicted as the means to facilitate the highest levels of compliance. This report has been published as CRR 390.

For further information contact:
Ms C McNicholas (0151 951 3865). email: clare.mcnicholas@hse.gsi.gov.uk

☐ PROJECT LISTING

NEWLY COMMISSIONED PROJECTS: JANUARY - MARCH 2002		
Project No.	**Project Title**	**Project Officer**
Fire and Explosion		

R03.036	Dust explosions in complex geometries	Mr A Tyldesley. Tel: 0151 951 4769 alan.tyldesley@hse.gsi.gov.uk
Engineering		
R31.085	The use of sewage sludge in construction	Mr S Cartney. Tel: 0151 951 4838 steve.cartney@hse.gsi.gov.uk
R32.093	Comparison of fracture assessment methods - Phase 2	Mr Harry Bainbridge. Tel: 0151 951 4651 harry.bainbridge@hse.gsi.gov.uk
R33.104	Health guidance for designers - Information research trial	Mr S Cartney. Tel: 0151 951 4838 steve.cartney@hse.gsi.gov.uk
R33.105	Selection and use of fall prevention and protection methods when working at height	Mr A Maitra. Tel: 0151 951 4634 hash.maitra@hse.gsi.gov.uk
R33.106	Chemical storage tank systems - Design, construction and installation good practice	Mr A Holt. Tel: 0151 951 3067 andrew.holt@hse.gsi.gov.uk
R36.192	Interactive CD-ROM project to assess the competence of workplace transport operators	Mr K Jewitt. Tel: 020 7717 6059 kevin.jewitt@hse.gsi.gov.uk
R36.193	Risk estimation and SIL allocation for safety-related control functions at machinery	Mr S Frost. Tel: 0151 951 4968 steve.frost@hse.gsi.gov.uk
R38.036	Assessing the safety integrity of a commercial computer operating system	Mr E Fergus. Tel: 0151 951 3415 ed.fergus@hse.gsi.gov.uk
Work Environment		
R41.124	The effect of adjacent objects on the wind pressure field around buildings	Ms P Bradley. Tel 0151 951 4202 penny.bradley@hse.gsi.gov.uk
R41.126	Analyses of the 1991 National Combustion Performance Survey results	Mr A Jones. Tel: 0151 951 3273 allyn.jones@hse.gsi.gov.uk
R41.127	Carbon Monoxide (CO) - Incident data 2002 - 2005	Mr A Jones. Tel: 0151 951 3273 allyn.jones@hse.gsi.gov.uk
R45.076	Correlation between vibration emission and vibration during real use: Impact wrenches	Mr Paul Brereton. Tel: 0151 951 4824. paul.brereton@hse.gsi.gov.uk
R45.077	Correlation between vibration emission and vibration during real use: Die grinders	Mr P Brereton. Tel: 0151 951 4824 paul.brereton@hse.gsi.gov.uk
R47.022	Assessment of electric and magnetic field exposures (EMF) of physiotherapists working in hospital departments	Mr A Barrett. Tel: 0151 951 4819 arwel.barrett@hse.gsi.gov.uk
Occupational Health		
R51.222	General practitioner-based scheme for monitoring pesticide related illness	Mr A Spence. Tel: 0151 951 4556 alan.spence@hse.gsi.gov.uk
R51.226	Evaluation and further development of the EASE model - 2	Ms D Llewellyn. Tel: 0151 951 4777 diane.llewellyn@hse.gsi.gov.uk
R51.236	Managing asbestos in premises: Identification of duty holder	Mr I Gooday. Tel: 020 7717 6269 ian.gooday@hse.gsi.gov.uk
R53.192	Use of self rescuers in hot and humid mines	Mr T Forster. Tel: 0114 291 2300 tony.forster@hse.gsi.gov.uk
R54.083	Management of work related violence to lone workers including mobile workers	Ms A Harrington. Tel: 020 7717 6306 ann.harrington@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
R56.096	The collection of specialist-based data on work-related ill health for the period 2002-06	Dr J Osman. Tel: 0151 951 4535 john.osman@hse.gsi.gov.uk
R56.097	Occupational ill health in the local authority enforced sector	Ms O Jenkins. Tel: 020 7717 6446 olwyn.jenkins@hse.gsi.gov.uk
R56.098	Questionnaire predictors of asthma and occupational asthma	Ms S Curtis. Tel: 0151 951 3712 suzi.curtis@hse.gsi.gov.uk
R56.101	Development of Functional Magnetic Resonance Imaging to measure the central nervous system response to chronic back pain.	Mr C Quarrie. Tel: 0151 951 3052 chris.quarrie@hse.gsi.gov.uk

☐ PROJECT LISTING

NEWLY COMMISSIONED PROJECTS: JANUARY - MARCH 2002		
Project No.	**Project Title**	**Project Officer**
Behavioural and Social Sciences		

R62.093	Recidivist risk takers who work at height	Mr M Holden. Tel: 0151 951 3725 martin.holden@hse.gsi.gov.uk
R62.094	Review of the competent person in engineering and manufacture	Ms A Orr-Ewing. Tel: 0207 717 6406 angela.orr-ewing@hse.gsi.gov.uk
R62.095	Market research: Perceptions of health and safety in Malta	Mr P Rimmer. Tel: 0151 951 4045 peter.rimmer@hse.gsi.gov.uk
R62.096	Industry sector database	Mr P Rimmer. Tel: 0151 951 4045 peter.rimmer@hse.gsi.gov.uk
R63.063	Evaluation of impact of proposed changes to separation distances: Mode A firework stores	Mr C Raymond. Tel: 020 7717 6288 chris.raymond@hse.gsi.gov.uk
R63.064	Small firms: How they approach compliance with health and safety regulations	Mr J Walls. Tel: 020 7717 6419 john.walls@hse.gsi.gov.uk
R64.088	The evaluation of the slips roadshow training seminar	Mr M Thomas. Tel: 020 7717 6686 mark.thomas@hse.gsi.gov.uk
R64.089	Health and safety in construction - Phase 2: Depth and Breadth	Mr T Allan. Tel: 0207 556 2100 trevor.allan@hse.gsi.gov.uk
R68.071	The extent of use of health and safety requirements as a false excuse for not employing sick/disabled persons	Mrs B Sahota. Tel: 020 7717 6249 baljit.sahota@hse.gsi.gov.uk
R68.074	Framework for job retention/vocational rehabilitation: employer/workplace approach	Ms J Manson. Tel: 020 7717 6229 june.manson@hse.gsi.gov.uk
Risk Assessment		
R72.066	Evaluation study of the life skills programme	Mr S Pilling. Tel: 020 7717 6803 simon.pilling@hse.gsi.gov.uk
R72.071	Riskplot+	Mr D Carter. Tel 0151 951 4570 dave.hid.carter@hse.gsi.gov.uk
R72.073	Development of a knowledge based system to deliver health and safety information to designers in the construction industry	Mr P Cunningham. Tel: 020 7717 6318 paul.cunningham@hse.gsi.gov.uk
Offshore		
3991	UKOOA collision risk management	Mr G Boothby. Tel: 020 7717 6921 george.boothby@hse.gsi.gov.uk
3994	Margins of safety in FPSO hull strength	Mr R White. Tel: 020 7717 6782. robert.white@hse.gsi.gov.uk
3995	Crane sling shedding study	Mr J MacFarlane. Tel: 01224 252500 jim.macfarlane@hse.gsi.gov.uk
3996	Review of risk assessment of buoyancy loss reports	Mr A Moyse. Tel: 020 7717 6778 andrew.moyse@hse.gsi.gov.uk
3997	Competence assurance project	Mr B Ogden. Tel: 0151 951 3544 bernard.ogden@hse.gsi.gov.uk
3998	Human factors guidance for selecting appropriate maintenance strategies in the offshore oil and gas industries	Mr B Miles. Tel: 020 7717 6685 bob.miles@hse.gsi.gov.uk
3999	Rig mechanisation study	Mr G Thomson. Tel: 01224 252500 gordon.thomson@hse.gsi.gov.uk
4001	Impact of changes to The Society of Naval Architects and Marine Engineers (SNAME) Bulletin 5-5A on jackup system reliability levels	Mr W Jones. Tel: 020 7717 6796 wayne.jones@hse.gsi.gov.uk
4003	Web based database relating to cranes by type and installation	Mr J MacFarlane. Tel: 01224 252500 jim.macfarlane@hse.gsi.gov.uk
4004	Approaches for the integration of advanced structural analysis and structural reliability analysis	Mr C De Souza. Tel: 020 7717 6776 conrad.de.souza@hse.gsi.gov.uk
4005	Sensitivity of jack-up reliability to wave-in-deck load calculation	Mr W Jones. Tel: 020 7717 6796 wayne.jones@hse.gsi.gov.uk

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NEWLY COMMISSIONED PROJECTS: JANUARY - MARCH 2002		
Project No.	**Project Title**	**Project Officer**
Offshore		

4006	Accident statistics for offshore fixed units on the UK continental shelf	Mr E Young. Tel: 020 7717 6926 eoin.young@hse.gsi.gov.uk
RECENTLY COMPLETED PROJECTS: JANUARY - MARCH 2002		
Project No.	**Project Title**	**Project Officer**
Fire and Explosion		
R01.029	Response of gas monitoring equipment in vehicle finishing units	Mr J Hazeldean. Tel: 0151 951 4009 john.hazeldean@hse.gsi.gov.uk
R02.057	Predicting the effect of obstacles on explosion development	Dr M Gregson. Tel: 0151 951 3678 Margaret.gregson@hse.gsi.gov.uk
R03.015	Conditions required for jet ignition of dust clouds	Mr A Tyldesley. Tel: 0151 951 4769 alan.tyldesley@hse.gsi.gov.uk
R03.031	Explosion venting of bucket elevators: Stage 2.	Mr A Tyldesley. Tel: 0151 951 4769 alan.tyldesley@hse.gsi.gov.uk
R03.032	Explosion baffles for dust handling plant	Mr A Tyldesley. Tel: 0151 951 4769 alan.tyldesley@hse.gsi.gov.uk
R05.092	Effect of dissolved gas on chemical reactor vent sizing	Dr A Fowler. Tel: 0151 951 3739 andrew.fowler@hse.gsi.gov.uk
R06.018	Safety categories for electrical equipment in explosive atmospheres	Mr S Brown. Tel: 0151 951 4859 simon.brown@hse.gsi.gov.uk
R09.003	Ignition risk assessment of potentially explosive atmosphere	Mr A Tyldesley. Tel: 0151 951 4769 alan.tyldesley@hse.gsi.gov.uk
Engineering		
R31.075	The development and validation of NDT techniques for butt fusion joints in polyethylene pipes	Mr G Hughes. Tel: 0151 951 4005 graeme.hughes@hse.gsi.gov.uk
R31.081	Enhanced standard for mining rockbolts	Mr P McGuinness. Tel: 0114 291 2300 peter.mcguinness@hse.gsi.gov.uk
R32.080	Design and validation guidance for neoprene lined offshore riser-guide clamps	Mr B McCullough. Tel: 020 7717 6922 bruce.mccullough@hse.gsi.gov.uk
R36.088	Methods for optimising the effectiveness of roll-over protective systems	Mr G Male. Tel: 0151 951 4034 gil.male@hse.gsi.gov.uk
Work Environment		
R41.097	Carbon Monoxide: Open-flued gas appliances/air extraction equipment	Mr D Pratt. Tel: 0151 951 3063 derek.pratt@hse.gsi.gov.uk
R41.117	Effects of ventilation strategies on flue performance	Ms P Bradley. Tel: 0151 951 4202 penny.bradley@hse.gsi.gov.uk
R47.013	Effects on infants of intakes of radioactivity by mothers	
R48.117	Quantification of 'at work' road traffic accidents	Ms S Bains. Tel: 020 7717 6386 sharan.bains@hse.gsi.gov.uk
Occupational Health		
R51.162	Comparison of a man-made fibre durability test	Ms D Dyne. Tel: 020 7717 6234 delyth.dyne@hse.gsi.gov.uk
R51.171	Methods for the assessment of asbestos removal operations	Mrs T Boyle. Tel: 0151 951 3390 tracey.boyle@hse.gsi.gov.uk
R51.210	COSHH Essentials - Health and safety knowledge in firms purchasing this guidance	Ms S Wassell. Tel: 020 7717 6281 sara.wassell@hse.gsi.gov.uk
R51.235	Pilot of electronic COSHH Essentials: An expert system for the risk assessment and control of exposure to chemicals	Ms J Cawte. Tel: 020 7717 6264 judy.cawte@hse.gsi.gov.uk
R53.171	Pedestrian slipping: Dry contaminants	Mr P Papard. Tel: 0161 952 8200. phil.papard@hse.gsi.gov.uk
R54.076	Work environment, alcohol misuse, ill health	Dr C MacKay. Tel: 0151 951 4565 colin.mackay@hse.gsi.gov.uk

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RECENTLY COMPLETED PROJECTS: JANUARY - MARCH 2002		
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Occupational Health		

R55.063	Development and evaluation of aids fo assessment of upper limb disorders	Dr R McCaig. Tel: 0151 951 4120 ron.mccaig@hse.gsi.gov.uk
R55.090	Sensory and autonomic function and ultra sound imaging of movement in the upper limb	Dr R McCaig. Tel: 0151 951 4120 ron.mccaig@hse.gsi.gov.uk
R55.092	Evidence based patient handling	Ms S Williams. Tel: 01582 444200 sally.williams@hse.gsi.gov.uk
R56.083	Specialist surveillance schemes for work related disease	Dr J Osman. Tel: 0151 951 4535 john.osman@hse.gsi.gov.uk
R56.093	British social attitudes survey: Health and safety module.	Mr A Spence. Tel: 0151 951 4556 alan.spence@hse.gsi.gov.uk
Behavioural and Social Sciences		
Z62.076	Social amplification of risk: Phase 2, 1.	Mr D Rickwood. Tel: 020 7717 6671 david.rickwood@hse.gsi.gov.uk
R62.085	Perceiving and enacting the risks of stress	Mr T Shaw. Tel: 0151 951 4552 trevor.shaw@hse.gsi.gov.uk
R64.064	Proving inspection works	Mr M Cosman. Tel: 01179 886000 mike.cosman@hse.gsi.gov.uk
R64.065	Risk assessment and playground safety: A review of the literature on accident and injury prevention in UK playgrounds	Mr G Howat. Tel: 0141 275 3000 gavin.howat@hse.gsi.gov.uk
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R67.142	Development of a standard for defensive trai driving	Mr M Brown. Tel: 0151 951 6506 martin.brown@hse.gsi.gov.uk
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Risk Assessment		
R72.044	Improving models for gas pipeline failure predictions	Mr B McCullough. Tel: 020 7717 6922 bruce.mccullough@hse.gsi.gov.uk
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R75.050	Source terms modelling for releases within building complexes	Dr S Porter. Tel: 0151 951 4626 steve.porter@hse.gsi.gov.uk
R79.003	Symptom reporting following exposure to organophosphate sheep dip	Dr R Rawbone. Tel: 0151 951 4555 roger.rawbone@hse.gsi.gov.uk
Offshore		
3718	Examination of pressure exposed CNS	Mr D Tee. Tel: 020 7717 6845 dave.tee@hse.gsi.gov.uk
3818	Resistance of semi-submersibles to collisions	Mr R White. Tel: 020 7717 6782 robert.white@hse.gsi.gov.uk
3872	Auditing and inspecting emergency response systems	Mr L Stear. Tel: 0151 951 3137 len.stear@hse.gsi.gov.uk
3937	Fracture toughness tests for high strength steels	Mr A Stacey. Tel: 020 7717 6774 alex.stacey@hse.gsi.gov.uk
3942	Fire and explosion design guidance	Mr R Martland. Tel: 0151 951 3082 roland.martland@hse.gsi.gov.uk
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