

Health and Safety Commission Paper		MISC/08/05	
Meeting Date:	N/A	Open Gov. Status:	Fully open
Type of Paper:	Misc	Paper File Ref:	
Exemptions:	None		

HEALTH AND SAFETY COMMISSION

Report on the Noise and Vibration Worker Involvement Project

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Cleared by CE on 30 January 2008

Issue

1. The Fit3 Noise and Vibration Programme has piloted the use of worker involvement to manage noise and hand-arm vibration risks. This paper reports on progress made and next steps.

Timing

2. Routine

Recommendation

3. That you note this report including:
 - successes and lessons learned from the noise and vibration worker involvement pilots;
 - the intention to roll this work out more widely in tandem with the guidance on employee consultation and to promote lessons learned internally.

Background

4. Worker involvement is one of the HSC's key strategic aims. It is about improving the management of risks to health and safety at work through increasing collaboration and co-operation between managers and workers. When it is most developed and effective, it goes beyond simply giving workers information or consulting them on management proposals. Instead it creates a genuine partnership between managers and workers for identifying, understanding, managing and controlling health and safety risks.
5. This project sought to bring the principles of a worker involvement approach to the management of noise and HAV risks. The related occupational diseases may

require several years of exposure to these risks before reaching an advanced and disabling stage. The deterioration of health may not be noticed by the exposed person until it is too late. The effective management of these risks needs to be in place from the outset of exposure and sustained over the long-term, with managers and workers remaining alert and working together to control them.

6. The Noise and Vibration Programme sought to test whether embedding a culture of worker involvement in affected companies would help to ensure that these risks and how they could be controlled were understood by all and that systems for regular exchange of information and ideas would develop between managers and workers.

Project Objectives

7. The objectives of the project were to:
 - test the concept that worker involvement could improve the management of the specific health risks from noise and HAV exposure;
 - test materials and guidance to support worker involvement in the management of noise and HAV risks;
 - identify novel approaches to the control of these risks developed by the pilot companies through the involvement of their workers;
 - take lessons learned from the pilot project to develop an effective strategy for rolling out a worker involvement approach to noise and HAV more widely across affected sectors.

Methodology

8. A Project group of industry and HSE stakeholders including the Engineering Employers Federation (EEF), Major Contractors Group (MCG), Federation of Master Builders (FMB), General and Municipal Boilermakers Union (GMB), and Union of Construction workers and Allied trades (UCATT), was set up in February 2006. This group identified 28 potential pilot firms to take part. The group also developed a package of resources for pilots and matched mentors from the project group to support and keep in contact with each pilot. The pilot phase of the project began in July 2006 and continued for 15 months to October 2007. Pilot companies developed and implemented worker involvement activities appropriate to their business and focused on noise and/or HAV risks. The Project group visited each company at least once and organised two workshops for companies to share challenges and good practice. A full list of companies involved is provided at annex A.
9. Some of the companies had experience of worker involvement prior to the pilots and others had none. All were keen to improve their management of noise and HAV. Twenty of the original 28 companies remained in the pilots and attended a closure event in October 2007. All of the companies ended the project as enthusiastic proponents of worker involvement and all stated that they had gained benefits from it both in health and safety terms, staff welfare and morale and also financial savings (higher productivity or efficiency gains). All have

committed themselves to continue to progress and develop worker involvement for the long-term. .

Argument

10. Some of the most notable achievements for this project were in training, communications, and health outcomes. These are described in Annex B part 1 and examples of activities from each company are provided in Annex B part 2. Further information can be provided on request. The pilot companies involved have also provided many personal anecdotes and testimonies to the success of the project. For example a firm in South Wales offered workers a reduced working week with no effect on pay in response to increased productivity arising out of workers suggestions. Other individuals involved commented that their symptoms on HAV especially had receded thanks to improvements in control of exposure introduced through the worker involvement approach (this had been verified by occupational health physicians during health surveillance). These and the many other improvements identified over the course of the pilots demonstrate that practical initiatives to involve workers in the management of health risks such as noise and HAV can have tangible positive effects on health and safety, productivity and communications.

11. Some key lessons learnt from the evaluation of the project are that:

- Trust between management and workers is essential. In particular, efforts must be made to engage trade unions and their representatives from the outset.
- Everyone in a company has a part to play in reducing risk, not just workers and their line managers, so all should be trained and engaged;
- Some early successes when introducing worker involvement, whether in setting up good systems, or in introducing tangible improvements in health and safety, or in quickly taking up ideas generated by workers and implementing them, will help get things off to a good start;
- top level interest, and commitment of resources within the company needs to be assured and sustained long-term. Management needs to show its commitment to worker involvement;
- Achieving a reasonably effective level of worker involvement may take anything from 6 months to 2 years or more depending on individual circumstances of the companies. Companies need to be committed to it for the long haul. Benefits will come but this may take time and everyone needs to understand this, to persevere and to be patient;
- An enthusiastic and competent project leader is a key requirement but since the project must be long-term and, in practice, it is possible that the project leader may have to stand down for a variety of reasons, succession planning is vital to ensure the project does not lose momentum;
- External consultants, suppliers and occupational health service providers etc can make very useful contributions as well, and are often very willing to do so;
- A permanent, simple and effective method for regular communication between workers and managers is fundamental to the success of worker

involvement. This must include regular feedback to the workforce and prompt visible action to change processes and procedures;

- Improved efficiency and productivity can result from workers suggestions.

12. An important lesson for HSE is that all the companies valued the opportunity to work with HSE in a collaborative and positive way. Several of the organisations and pilots felt this approach would, in the long run, be as effective as other more enforcement or regulation based approaches. Furthermore companies on the project would like to keep in touch with each other and many are willing to share their experience and promote the benefits of worker involvement to other parts of industry.

13. The Noise and Vibration Programme has shared these lessons with the Worker Involvement team responsible for producing the good practice guide on worker consultation and will also provide some case studies/examples to support that guidance. The experience of this pilot suggests that worker involvement can have a positive impact at both practical level as well as a management/worker consultation level and that this can spread into the management of other health and safety risks.

14. The Noise and Vibration Programme thinks that lessons from the pilot are valuable to others and are sharing these with other Fit3 Programmes. The programme is also developing a strategy to roll out the products and tools developed from the pilot exercise more widely and will continue to work with our stakeholders both internally and externally to deliver this.

Consultation

15. HSE's Injuries Reduction Programme Board has been consulted on and has endorsed the proposed expansion of this project. Further work on the project will require the consultation and support of industry bodies and trade unions and other relevant parts of HSE. The EEF are keen to continue its involvement in the project and we will be consulting with others to confirm their continued interest.

Presentation

16. Articles are being published both in Express (the HSE in-house magazine) and in the HSC Newsletter to promote the success of this pilot immediately. There has been some trade and health and safety press interest in the project externally and the opportunity is being taken to publicise the pilots with the Health and Safety Bulletin and with Construction News. A communications strategy to support roll out is being developed with CD and the Worker involvement team centrally. Industry and trade union partners have looked upon the project as being beneficial and very welcome and trade press interest is generally positive.

Costs and Benefits

17. This project did not apply a before and after approach to the evaluation of the work rather an in depth case study based evaluation of a selection of pilots has been prepared. This has highlighted some important lessons for applying worker

involvement more generally (see above). All the pilot companies involved in this project volunteered to take part and incurred some costs in terms of staff time and resources to set up and maintain the worker involvement systems and to carry out training etc. All have stated that the benefits from the project have outweighed the costs; however there is no economic impact assessment to demonstrate this conclusively. The roll out of the project will entail guidance and information on the HSE website and also presentations and seminars as well as other communications initiatives and other stakeholder engagement activity. The programme will discuss with the Better Regulation Unit and Economic Advisors Unit what impact assessment might be appropriate for wider roll out

Financial/Resource Implications for HSE

18. The project so far has taken approximately 1 Band 3 and 1 Band 5 over two years (ie half a staff year each year respectively or £125653 full economic cost). This staff resource is likely to continue into 08/09 to support a roll out of the project with target sectors in construction and manufacturing and internal communications on the project. Communications spend externally on the project has been approximately £10,000 for 06/07-07/08. The communications budget for 2008/09 has been initially set at £15,000.

Environmental Implications

19. None

Other Implications

20. The pilot project involved medium and large enterprises. The Programme, will discuss with SME representative bodies whether the worker involvement approach could be beneficial to such companies and how this might be achieved.

Action

21. The Commission is invited to note the achievements of this project and the plans to take it forward.

Companies involved in the Noise and Vibration Worker involvement pilots

Name of company	Description of company	Trade Union involvement	Total number of employees	Number of workers covered by project
Caterpillar Trucks, Peterlee	Articulated 6 wheel haul truck (26-42 ton) manufacture	Yes	987	70
Clugston Construction, Scunthorpe	Construction and civil engineering	No	1200	60
The Davy Roll Co Ltd, Gateshead	Manufacture of iron and steel cast rolls	Yes	275	275
Doncasters Paralloys, Billingham	Petrochemical furnace tube assemblies	GMB	210	70
Freudenberg Technical Products LP North Shields	Sealing and vibration control technology	Yes	365	200
GE Aircraft Engine Services Ltd Cardiff	Aircraft engine strip down and rebuild	Amicus	980-1080	200-600
Keltbray Ltd London	Demolition, structural engineering, foundations	No	140	140
Kier Support Services Ltd (Islington)	Building support and maintenance	Amicus UCATT	570	60
Kier Support Services Ltd (Sheffield)	Building support and maintenance	Amicus UCATT	1900	1200
Lafarge Roofing Ltd Ebbw Vale	Roofing materials manufacture	T&GWU	78	78
Liebherr Sunderland Works Ltd	Plant manufacture	Amicus GMB	210	180
McGee Demolition London	Demolition and clearance	No	450	450
McNulty Offshore Construction Ltd South Shields	Steel fabrication, electrical and instrumentation	Yes	1100	1100
Michelin Tyre Public Ltd Company Stoke-on-Trent	Tyre management for Bus companies	No	3500	242
Ocon Construction	Principal Contractor Construction	No	150 permanent 240 operatives	240

Name of company	Description of company	Trade Union involvement	Total number of employees	Number of workers covered by project
Sheffield				
P C Henderson Ltd Durham	Manufacture of garage, residential and sliding doors	T&GWU	240	150
Shepherd Construction Ltd Leeds	Construction	Yes	976	39
Siemens Power Generation Newcastle	Service and design steam generators	Amicus	450	60
Totty Construction Ltd	Construction including Government Projects	Yes	144	72
VT Shipbuilding Ltd Portsmouth	Shipbuilding Commercial and Navy	GMB T&GWU Amicus Ucatt	987	550-650
Widney Pressings Ltd Newcastle	Automotive	No	179	20

Significant achievements by activity

Training

- Most companies set up HAV and noise training for workers and managers alike. Some companies set up training for senior managers and Directors as well which has helped ensure a better understanding and a stronger commitment at the highest level in the company.
- Several of the construction companies insisted on health and safety induction training, including on noise and HAV, for all sub contractors before they were allowed to commence work on site. One company additionally provided help and advice to sub contractors on preparing risk assessment and method statements. This company has also begun to issue simple worker involvement handouts to sub contractors to encourage them to take up the practice of involving their own teams in managing the risks.
- Most companies had health surveillance programmes in place, or introduced them/extended them to include HAV and noise. Some involved their occupational health professionals on their worker involvement project teams so that they were fully aware of the intentions of the project and could provide help where appropriate, for instance in educating workers on the risks and the need to report any symptoms immediately.

Communications

- A variety of communications methods/suggestion systems were set up between workers and managers. All these allowed for health, safety and other issues to be raised in a simple, and public way and ensure open feedback from management. This helped to build trust and cooperation and to encourage workers to raise issues knowing they would be properly considered and actioned.
- One company videoed particular work processes while noise and vibration measurements were being taken by a scientist from the Health and Safety Laboratory. A member of the pilot company's staff undertook the videoing and the company's own workers were the subjects. These recordings, showing a range of work activities and likely levels of exposure will be shown to other staff by means of monitors in the staff canteen and the depot store using a rolling video loop.
- Another company is measuring vibration emissions for all its tools and planning to produce posters for each tool type with a picture of the tool and key information about vibration levels and limitations on daily duration of tool use. These posters will be sited around the factory so that everyone can see them.

Problem solving

- At one company, workers reported to management that they had noticed that one part of the factory had better, lower vibration tools than another. It transpired that the respective managers had not shared information with each other about tool selection, and the advantages of particular tools.

- At another company, workers were aware that a visiting sub contractor was operating in a way that created a lot of unnecessary noise affecting many other workers. One of the affected workers reported this to management who ensured that the subcontractor changed his work method to avoid exposing others to that noise.
- Another company delegated tool maintenance management to selected operatives who now keep records, collect tools and send off for servicing, and return tools to the production unit once serviced
- One company felt that before the worker involvement project they had hit a brick wall on HAV. They knew they had serious problems but were at a loss as to what to do about them. Since introducing worker involvement, they believe they have virtually eliminated HAV risks through taking up ideas from workers and from an external consultant and have also improved productivity to such an extent that they have rewarded their workforce by cutting the working week by one hour.
- On one construction site workers raised the issue of noise being caused all over the site by certain cutting processes, and suggested that these activities be confined to specified enclosed areas to restrict the noise which would otherwise affect many other workers. Management took up the suggestion and set up cutting rooms for these processes.

Health Outcomes

- At a recent workshop to mark the completion of the pilot stage of this project a couple of firms said that some staff were reporting reduced symptoms of HAVS following reduced exposure, which had been confirmed by OH professionals.

Some key achievements for each of the pilot companies

Company	Some key achievements
Caterpillar Trucks Peterlee	<ul style="list-style-type: none"> • A “tee” shaped card and slot board system at each production section allows workers publicly to raise issues, problems, complaints, suggestions about health and safety issues and allows everyone to see progress of management response. • Supervisors, shop floor reps, safety reps, engineers come together to sort problems - monthly meetings -results issued to all employees • Workers involved in trialling tools before purchase
Clugston Construction Scunthorpe	<ul style="list-style-type: none"> • Managers do toolbox talks not H&S team – its their responsibility to look out for H&S • Worker feedback through site safety adviser • Scratch cards and vouchers rewards for best “take time” reports
The Davy Roll Company Ltd Gateshead	<ul style="list-style-type: none"> • Management briefings cascaded to workforce through monthly meetings of small groups • Factory wide noise survey carried out • Ear plugs and muffs available around the factory at choice of workers
Doncasters	<ul style="list-style-type: none"> • Trigger time measured – found to be much less than expected • Health surveillance established • Insurer offered free exposure measurement
Freudenberg Technical Products LP North Shields	<ul style="list-style-type: none"> • Employees are now more questioning • H&S suggestion scheme • £250 prize for the best suggestion made and implemented
GE Aircraft Engine Services Cardiff	<ul style="list-style-type: none"> • Tool suppliers, maintenance and consumables contractors brought onto gate safety team- able to make useful contribution • Consultant – photographing tools and processes – develop as posters • Shop floor “HAVchampions” identified a problem with burr tools – alternative tool found and improved speed as well as H&S and saved on costs
Keltbray Ltd	<ul style="list-style-type: none"> • poster with feedback on issues raised by workers • feedback to groups and individuals • workers requested <ul style="list-style-type: none"> ○ greater selection of hearing protection ○ sharper tool bits ○ forms for recording exposure time
Kier Islington	<ul style="list-style-type: none"> • Survey of tool use/exposure time • 4 high risk tools identified • Noise survey joinery shop
Kier Sheffield	<ul style="list-style-type: none"> • Monthly meeting of shop stewards • Shop stewards reviewing tools • Measurements by HSL - workers co-operating and will be videod by Project Leader at Kier who will show video to work force
Lafarge Roofing	<ul style="list-style-type: none"> • Daily meeting with workers and managers on H&S • Whiteboard for putting up ideas, comments etc • Workers now chase managers about H&S improvements
Liebherr Sunderland Works Ltd	<ul style="list-style-type: none"> • Toolbox talks generated 10 suggestions for improvement • Major reductions in use of grinders • Workers making suggestions on materials that don't need grinding
McGees (demolition)	<ul style="list-style-type: none"> • 5 day safety training course for operatives • Communications with workers is on face to face basis • Workers suggested trying a muncher on a 360 excavator instead of a crane which was successful
McNulty	<ul style="list-style-type: none"> • Monthly “grouse” meeting • Workers raised problems with welding/grinding switch to MiG/ceramic backing- avoids grinding

	<ul style="list-style-type: none"> • Client specification finish too high – could reduce grinding, polishing – need to influence designers
Michelin	<ul style="list-style-type: none"> • Plan Tyre technician newsletter with H&S column • Use noticeboards in bus depots • Get all Tyre Technicians on internet/intranet and encourage communications that way
Ocon Construction	<ul style="list-style-type: none"> • All sub contractors receive induction on H&S (inc N&HAV) • Toolbox talks (Hilti/Marigold also involved in some) • Advice on Risk assessments given and RAs checked
Shepherd Construction	<ul style="list-style-type: none"> • Four safety reps trained to give tool box talks • Suggestion box used • encouraged to talk to supervisors in “bright ideas” scheme
Siemens Power Generation	<ul style="list-style-type: none"> • Using 3i suggestion scheme with double rewards • Staff bring lots of problems and issues direct to Project leader -problems logged on spreadsheet • Workers taken on responsibility for tool maintenance and understand the effect of poor maintenance on noise and HAV
Totty Construction	<ul style="list-style-type: none"> • Hilti and O H provider give toolbox talks • Equipment suppliers and Occ health provider being asked for help • Informal bacon butty/coffee meetings for workers to encourage them to chat about problems, help each other – these have worked very well.
VT Shipbuilding	<ul style="list-style-type: none"> • Talk by Naval Base Chief Medical Officer on NIHL and HAVS to senior managers • Blunt drill bits replacement policy promulgated and drill bits made easily available because workers thought they had to economise by using worn out drill bits • Informal meetings of workers and managers to talk frankly but without recrimination about H&S issues
Widney Pressings	<ul style="list-style-type: none"> • Detailed project action plan • Good initial progress but recently have been diverted by business issues and project temporarily stalled. • HSE specialist inspector visiting in July to take some measurements because of doubts about consultants measurements.