



AMP 5 Excellence in Health & Safety Awards 2011

Excellence in Health and Safety Innovation

GBM

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Introduction

GBM is a joint venture working for Thames Water as a framework design and build contractor.

A critical part of the GBM culture is its focus on Health and Safety: it will be a priority at every stage of the delivery process from design through to commissioning and handover.

Our Health and Safety vision is to achieve a zero incident target based on continuous improvement in behaviours encouraged by consistent leadership, high performance targets and the promotion of best practice with all stakeholders.

A robust safety management system, comprising of a Health and Safety Policy, together with Standards, Procedures, Checklists and ProFormas, provides guidance on how GBM and its sub contractors will undertake their work in accordance with all relevant statutes. This is supported by a behavioural based Safety Training Programme aimed at producing a thorough and shared understanding of the health and safety risks. This has proven to increase awareness of health and safety responsibilities and lead to better performance.

GBM's commitment to improved Health & Safety is led by a team of Safety Advisers, supported by Senior Managers, who form the Safety Advisory team. They review audits, implement training and develop initiatives which are endorsed by the Senior Leadership Team and Board Members. Comments and feedback are encouraged from all quarters and we are pleased that so many employees are keen to input best practice from their own background in order to enhance the procedures we have set down.

GBM not only seek to incorporate best practice set by industry standards and other companies, but also to be innovative and lead by example; creating solutions which can be adopted by others to make the construction industry a safer place to work. Safety is of paramount importance to GBM and working with suppliers, contractors and client to seek out new working methods and equipment will deliver solutions that benefit us all.

GBM review accident investigations, AFR, HSE accident statistical data, near miss and hazard identification trends to determine where innovative measures are required to reduce the risk of harm.

1. Tangible Benefits to Health and Safety, Including Cost and Risk Reduction.

GBM have implemented the following innovations that not only reduce the health and safety risks to an acceptable level but , in their application are reasonable, practicable and of benefit to users:

- **Hand Arm Vibration (HAV) Meters**

GBM have trialled HAV meters from Speedy who are the framework contractors for plant. HSS, the framework suppliers for small tools and equipment, were apprehensive when first approached regarding the use of Speedy's HAV monitoring equipment being used on their tools. However, once they saw the support for the proposal from the Thames Water Health and Safety Forum, the Client and other contractors agreed for the HAV monitors to be attached to their equipment.

The HAV monitors easily attach to the equipment and have a green (ok to use), amber (approaching exposure limit) and red (limit reached/exceeded). This is extremely user friendly and more reliable than relying on general information supplied by the manufacturer. There is no need for users and managers to complete written logs as the software automatically saves the information until it is downloaded on a computer to give graphical easily readable information, each users information is saved and acts as a source of reference for review and setting controls, and occupational health records. This system has already proved its worth; the immediate result after the first download in January 2011 demonstrated its effectiveness whereby one operative was found to have been using a tool an excessive amount and the tool proved to be defective giving greater vibration readings than standard. (1)

The software costs approximately £1000.00 per licence and the hire of the meters is minimal, compared to the ill health effects of hand arm vibration system and the unreliability of other control measures. GBM have deemed the HAV monitoring as being reasonably practicable in its implementation as it saves time and money and working practices become more efficient and productivity can be maximised.

- **Service Identification Tags (1)**

Service identification tags are attached to exposed, unidentified service cables by site operatives. Once the service has been identified then a tag can be made out stating what the service is and attached to give warning to everyone. The tags are £2.50 each and reduce the risk of contact with live electrical and other services which can not only result in major injuries but can also lead to failure of critical plant and equipment. The tags are durable and can be reused.

- **Reverse Parking**

All sites operate a reverse parking only policy, unless it is deemed impractical through risk assessment. The majority of incidents involving vehicles on site happen within the first five minutes of driving, making it safer to reverse park at the end of your journey when you are more likely to have been driving for more than 5 minutes, than at the beginning of your journey. The costs are minimal as signage can be reused. There is no additional cost for entry on to the traffic management plan and inclusion into the site inductions.

- **Quick Hitch**

GBM believe that one of the greatest initiatives to be adopted by themselves in the past 12 months is the implementation of the quick hitch control measures which are an effective control in preventing buckets detaching from excavators whilst been operated. In line with HSE recommendations and prevention of incidents, GBM do not permit the use of semi-automatic quick hitches and have adopted a series of control measures to help prevent human error occurring during the change of attachments to excavators (control measures are explained in the next section). The booklet, signage and recommendations have a minimal print cost, negligible against the cost of a fatality or major injury of which there have been numerous within the industry.

2. Originality

The fundamental reason behind the implementation of innovations is to ensure a reduction in the number of health and safety related accidents. GBM believe they are the creators of the following innovations:

- **Quick Hitch Booklet and Supporting Materials**

In order to control the use and reduce the risk to health involved with the use of quick hitches on excavators. GBM have developed and rolled out across their site a Quick Hitch Booklet which machine operators have to complete every time they change the bucket/attachment. Slinger/signallers/ banksman have to countersign the sheet to verify that the relevant checks have been completed (2). GBM have produced posters to promote the safe use of excavators (2), and have devised a sheet of recommendations which is briefed out to all operators of excavators, Site Managers and Supervisors and slinger/signallers/banksman. (2) On starting work at site, operators have to prove their competence through visual assessment as well as having a CPCS card of competence and log of experience. GBM also work to the HSE recommendations made following several incidents throughout the industry and do not allow the use of semi-automatic quick hitches on any of their sites.

- **Site Signage**

As part of the standard site signage, sent out with the site start-up pack, is the hazard of the day board (2). The boards are updated daily to reflect the foreseeable hazards on site. They include an aerial map of the site and briefings are often delivered in front of the board. The Hazard of the Day boards are conveniently situated where all the workforce have to pass them on leaving the compound to their areas of work.

3. Employee Involvement

GBM believes that face to face communication, particularly for the introduction of innovative measures in Health and Safety, is critical and a cascade system has been introduced to ensure that everyone understands why the measures are being introduced and their importance in securing their health and safety on site as well as giving them an opportunity to give us feedback. Face to face communication is then reinforced through leaflets, posters and booklets.

Employee involvement was critical in securing take up of the following innovative measures:-

- **Trial of HAV meters/feedback**

Site Management and operatives have been fully involved in the training of the use of and the trial of the HAV monitoring equipment and have been co-operative and forthcoming with feedback on its use. (3)

- **Quick Hitch Controls**

Machine operators and banksman have been compliant in completing of the booklet, ensuring the right control measures and safe working practices have been implemented. Operators are all aware of the fatalities and major injuries which have been caused through the operation of excavators and realise that control measures are a necessity in the safe operation of excavators.

In addition, GBM is always seeking behavioural innovation which can improve health and safety standards on site. The Tap on the Shoulder is proving to be particularly effective:

- **Tap on the shoulder – Polite reply**

Included in the induction (3) which is given to everyone on site is Tap on the Shoulder concept which comes in to play if you see a hazard, someone working unsafely or an unsafe condition.

Just tell the person involved, and if someone approaches you, even if their concerns are unwarranted, reply politely. This is further endorsed in the behavioural safety briefings (3) and promoted by management on site. When asked, persons said they were wary of approaching persons, especially when they were of a different discipline even when they believed that person to be working unsafely; this was down to the fact that they are unfamiliar with their work and the associated risks and controls, do not know the person and fear the response.

- **Monthly Safety Advisory Groups (SAG)**

Safety Advisory Groups are being introduced to ensure workforce inclusion and engagement. They are to be held on a monthly basis chaired by a nominated person (not site management) and attended by key representatives throughout the supply chain. They primarily work at removing any communication barriers and encourage feedback and input on all health and safety matters. This has evolved so that there is now collaboration on all aspects of work undertaken on site. This ensures that there is two-way communication for all companies working on site and they feel free to come up with health and safety challenges and solutions.

GBM have plans to introduce the following innovations after consulting the workforce:

- **Safe Plan of Action**

Extension of the start of the shift briefing where hazards in the direct working environment are identified. It references the Safe System of Work (SSOW) for the job being completed ensuring that the agreed method of work remains fresh in the mind of operatives. It also identifies a change of operatives in the team and any change in conditions from the previous day.

- **Safe Game Plan**

This covers activities on site which may not be covered by a method statement e.g. moving a bag of cement to and from a storage area. It identifies hazards associated with the task and the environment and suggests control measure which should be adopted prior to the task commencing.

- **Job Safety Analysis**

For every job done on site a SSOW is completed; Job Safety Analysis is a two way audit of the safe system of work against what is actually happening on site, checking that all operatives have signed the SSOW, that the correct tools and equipment are being used and that all other controls in the SSOW have been put into practice. The Job Safety Analysis also allows the operatives to voice better ways of doing the job and any suggestions they may have. This tool will hopefully encourage operatives to keep to the agreed method of work thus reduce accidents on site.

4. Leadership Commitment

- **GBM Health and Safety Forum**

The GBM Health and Safety Forum reviews accidents, hazard identification trends, suggestions, alerts, legislation amendments or additions, best practices and audit results. From these areas for improvement are identified.

Trial results and feedback such as the HAV meter trials are fed back into the forum where the decision to adopt across all sites is determined and agreed by the Contract Director.

- **GBM Safety Leadership Team**

Comprises of the Health and Safety Manager, the Health and Safety Advisors, a Construction Manager and 2 Senior Works Managers. The team works on producing innovations to the industry which exceed other controls used for the same challenges, and implementing other standards which are deemed reasonably practicable where improvement has been identified as being required. GBM are focused on leading the way and incorporating the highest standards and raising the bar in health and safety. All the innovations in this submission have been produced through the Safety Leadership Team.

5. Ease of Use

- **HAV Monitoring (1)**

The HAV monitors easily attach to the equipment and have a green (ok to use), amber (approaching exposure limit) and red (limit reached/exceeded). This is extremely user friendly and more reliable than relying on general information supplied by the manufacturer. There is no need for users and managers to complete written logs as the software automatically saves the information until it is downloaded on to a computer to give graphical easily readable information, Each users information is saved and acts as a source of reference for review and setting controls, and occupational health records.

- **Service Identification Tags.(1)**

Service tags act as a visual reminder and warning of the identified service; they are constructed of durable material and can be reused many times. They are sent out to all sites in the start up pack so they are readily available. They are easily attached using cable ties.

- **Aerial Maps (1)**

Large aerial maps of the site are on the hazard of the day board and on the table and wall of the induction room; they act as a visual aid to assist inductees in locating first aid provisions, fire assembly points, traffic management, working areas and major hazards.

- **Hazard of the Day Board (1)**

An effective way of delivering information on a daily basis, it involves site management writing key hazards, the area where they are present and the control measures required.

- **Site Signage**

Site signage is ordered in packs according to the site size. Extra signs can be ordered to tailor to the sites individual needs. The site health and safety boards (5) have plastic holders and hold all essential health and safety information and can be easily accessed by everyone on site. There is a signage catalogue (5) available and handed out in the start-up packs along with the standard pack of signage. The signage can be reused and is labelled with the GBM logo.

6. Attachments

File	Document	Evidence of
(1) Benefits to H&S	HAV Manager	Results of use – shows users and exposures
	HAV pricing	Costs of implementation
	Hav meter reports	Daily exposure levels
	Hav Meter instructions	User guide
	Service tag	Photograph of service tag in use
(2) Originality	Complete hazard of the day board	Photo of one at site
	Hazard of the day	Blank board as in sign catalogue
	Quick hitch check	Check list used by operators printed in duplicate booklet
	Quick hitch poster	Poster of information
	Quick hitch recommendations	Rules for safe use of excavators – briefed to operators and banksman

<p>(3) employee Involvement</p>	<p>BBS 2 Slide 13</p> <p>Slide 60,61,62 induction</p> <p>Safe plan action</p> <p>Safe Game Plan</p> <p>GBM SAG</p>	<p>Slide 13 of the briefing shows the promotion of informing people if they are working dangerously and giving a polite response</p> <p>Slide 60,61,62 of the induction shows the promotion of informing people if they are working dangerously and giving a polite response</p> <p>Future release – control measure directly prior to starting work at the workplace</p> <p>covers activities on site where there is no method statement e.g sweeping</p> <p>Minutes of meeting reporting positive response to the trial of the hays meters</p>
<p>(4) Leadership Commitment</p>	<p>GBM H&S Meeting</p>	<p>Evidence of meeting involving top management.</p>
<p>(5) Ease of use</p>	<p>Euroscreens</p> <p>Hazard of the day board</p> <p>Service tag</p> <p>H&S Board</p> <p>Site map</p>	<p>Site signage catalogue – start up packs and extra</p> <p>Evidence that boards are in use</p> <p>Photos evidencing service tags in use</p> <p>Photo of H&S board with different slots and all labelled so that correct information is available to everybody.</p> <p>Laminated maps on fencing showing TWOSA/TOCOP areas.</p>