



## THE EFFECTIVENESS AND IMPACT OF THE PABIAC INITIATIVE

### INTRODUCTION

Against a background of increasing concern at the high rate of accidents and following a series of fatal accidents in the paper making industry the Health and Safety Commission's Paper and Board Industry Advisory Committee (PABIAC) launched a three year Initiative<sup>2</sup> in April 1998. The Initiative had a target to reduce the numbers of people killed and injured in the industry by 50% and backed up by a series of high level objectives aimed at improving safety culture and safety management in the industry.

The Initiative was agreed following an investigation<sup>3</sup> by HSE's Health and Safety Laboratory (HSL) into the reasons why the industry's safety performance was so poor and what factors influenced that performance. After three years hard work, in April 2001, PABIAC commissioned independent research by Greenstreet Berman Ltd to evaluate the effectiveness and impact of the Initiative. Researchers from revisited the original work by HSL to measure how safety culture and management systems had changed, they analysed answers to a questionnaire sent to mills, interviewed key players around the industry, trade unions and HSE and began to assess the costs and benefits of the Initiative as a whole. This paper summarises the findings of that research<sup>1</sup> and sets out the recommendations made by the researchers, many of which have already been taken up by PABIAC in the next phase of the work "PABIACtion".

### ACHIEVEMENT OF THE ACCIDENT REDUCTION TARGET

**Accidents have reduced**; over the three year period of the Initiative, the fatal and **major accident rate** decreased by **26.6%** overall, but there was little change in the rates for all accidents and over 3 day accidents. Despite this apparent failure to achieve it's original target this reduction equates to **174 fewer people being killed or injured in the papermaking industry**. This is against a background of a 29.8% increase in production and a difficult economic climate within papermaking, both factors that might otherwise have driven rates higher. The paper industry also achieved a reduction in their rate of accidents over a period when the rest of manufacturing industry's accident performance remained static or increased.

The biggest improvements in accident rates were amongst the poorer performers and the smallest mills (< 115 employed). At the end of the 3 years **the difference between the best and the worst mills had been reduced significantly**, but there remains a variation between mills which continues to be of concern to PABIAC.

Accident rate trends in papermaking before the Initiative were upwards, whereas following the Initiative they have been downwards. The research considered a range of alternative explanations and concludes that the **Initiative has had a major role in these reductions and trends**.

Since the completion of the reseach, the industry has achieved a continuing reduction of all accidents in accordance with PABIAC's ongoing target to reduce



accidents and to align more closely with the UK manufacturing industry average (see Annex).

## CULTURE AND MANAGEMENT

Standards of **safety culture and safety management** in the mills were found to have **improved significantly** from the levels reported in the HSL study, and the accident rate prediction model (developed by HSL) suggests that these changes are responsible for the improvements in accident rates.

Throughout the Initiative the partners on PABIAC strengthened their working relationships and adopted a **strong policy of openness**. This **partnership** approach, which was exemplified by the PABIAC roadshows and sharing previously confidential data and literature, was strongly supported by the research findings, as was the management model used in “**Successful Health and Safety Management**” (HSG 65).

PABIAC are determined to continue and further develop their approach and partnership through the use of **further targeting** and are concerned that any reduction in the commitment shown by management, trade unions or HSE could damage the **sustainability** of their work.

## TECHNOLOGICAL RISK AND MAKING PAPER SAFELY

The research concluded that **technological risk** (a measure of the inherent risks in the papermaking process) had remained **largely unchanged**, but commented that the industry could thus demonstrate a **greater control over its inherent hazards** than it did in the previous HSL study.

The research was carried out too soon to identify the changes resulting from (or the costs of) the major guarding programme now underway following publication of PABIAC's new safeguarding standards, set out in “Making Paper Safely” (MPS). Although some comments were made about the timing of this publication it was accepted that such a major **change to the safeguarding arrangements could not have been achieved any earlier**, that is without having already begun to change the safety culture of the industry. PABIAC is aware that many in the industry feel that the costs of MPS are onerous and a few have challenged why the UK is embarking upon such changes when other countries are not. However evidence is now coming forward (since the conclusion of the current research) that suggests that **efficiency gains can be significant** in mills that have adopted a comprehensive reappraisal against MPS in partnership with their employees, and the **costs of compliance with MPS are largely “one-off”**. PABIAC is now working in Europe to promote the standards set out in MPS, particularly in relation to new machinery within prEN 1034. PABIAC agrees that further work is required on MPS, not least to ensure a level playing field, but also to share best practice.

## COST EFFECTIVENESS

The research concluded that the **Initiative was at worst cost neutral** (i.e. the total costs of all parties to the Initiative up to April 2001 were balanced by the “value” of the accidents prevented). However it was too early (in Summer 2001) to measure all



the benefits and further work is required to fully evaluate an accident reduction programme of this sort.

PABIAC are now trying to find suitable contractors to carry out this work and, in particular, take into account the costs of MPS and the value of the continuing accident reductions achieved.

## SUCSESSES AND FAILURES

PABIAC asked the researchers to identify both successes and failures of the Initiative.

Aspects of the Initiative which were identified as **successful** included the **commitment by Chief Executive Officers** through annual seminars and the **partnership** approach at national and mill level (involving employers, employees and HSE). The requirement for mills to produce a health and safety **Action Plan** was identified as a useful tool for both mills and inspectors, and one which could be transferred to other industries in similar circumstances where commitment and leadership together with a clear agenda were needed.

Other successful and important features included the willingness by mills to **share their experiences** and to **benchmark** both inside and outside the industry. The Paper Federation has developed this to create a “virtual mill” on their web site containing examples of practical solutions to common problems submitted by members.

**HSG 65** “Successful Health and Safety Management” was repeatedly found to provide a **practical model** for mill managers and inspectors to assess progress and use as a benchmark. As described above, the research also found that the standard of both **safety management and safety culture** across the industry had **improved significantly** over the period of the Initiative when compared to the original research.

The researchers commented specifically on the value of HSE **adopting an open enforcement policy** and **publishing individual mill accident rates**, and how this had contributed to a **consistent approach** by inspectors.

**Less successful** aspects and learning points included the obvious fact that the **50% accident reduction target was not achieved** within the period set by PABIAC, but the researchers off-set this failure by indicating that in their opinion **three years was not long enough** to achieve the amount of change needed in the industry (this tends to be confirmed by the continuing significant improvement being seen post March 2001 - see Annex).

Although the researchers supported the publication of the individual mill accident data they did find that many **poorer mills felt demotivated by the fact that whatever they did seemed to have little effect on their record**. PABIAC feel that this probably reflects the fact that mills were starting from different levels of sophistication in relation to their safety culture and that **future targeted initiatives should be tailored to the needs of the different companies** involved.

“PABIACtion” ( the next stage of PABIAC’s work) takes this into account by



identifying three distinct groups, depending upon their accident performance. The issue of sophistication in relation to safety culture was confirmed by the researchers who indicated that **the poorer the safety culture the less likely it was for a mill to be able to react effectively to the challenge of developing an effective Action Plan.**

### IS THE INITIATIVE TRANSFERABLE TO OTHER INDUSTRIES?

The Study concludes that the Initiative was effective because of a number of factors peculiar to the paper industry, including:

- **The industry is small and self-contained** - i.e there are only around 100 paper mills
- The mills are **all technologically very similar**
- Two trades unions and one trade association **represent the majority of the industry**

In addition, there was a **willingness in the industry to co-operate** and to recognise that it was a “poor performer”

The researchers considered that the processes of **target setting and benchmarking were “transferable elements”** for other industries with **similar characteristics or for parts of industries capable of being separately identified.**

In addition the tools used by PABIAC, including **partnership, action plans, networking** and securing a **strong commitment from CEOs** were seen as useful to others embarking upon similar initiatives. PABIAC believes that one of the keys to the changes achieved was the ability to **engage the whole industry**, managers, employees and enforcing authorities, **within a single targeted approach** and that these are **important lessons if the Revitalising Health and Safety targets are to be met by UK industry as a whole.**

### THE FUTURE

The research makes a series of **recommendations** (annex) which **PABIAC supports** and will work towards achieving over the coming months. In addition PABIAC has already launched the successor to the Initiative - “**PABIAction**”, which seeks further accident reductions over 3 years (2001 - 2004) so that the paper industry more closely matches the average achieved by the rest of UK manufacturing industry. This new initiative provides differential targets according to a company’s current performance, with the poorest performers needing the greatest improvement. This has been coupled with the publication of individual mill accident rates and the targeting, by HSE inspectors, of the poorer performers.

### So has all this work been worthwhile?

PABIAC believes that the report from Greenstreet Berman Ltd demonstrates that there have been **many successes and some failures** over the three years covered by the PABIAC Initiative, but that the positive aspects far outweigh the negative. In addition PABIAC is encouraged to see how **accident rates since April 2001 have**



**reduced significantly**, suggesting that the industry will both achieve its new target and potentially become a model for others. Comparisons with other industries suggest that the PABIAC Initiative has performed well and has potential to perform better.

If the partners on PABIAC had chosen to go their separate ways and adopt their traditional roles we could not have succeeded. Without a willingness to co-operate, share knowledge, and, at times, engage in heated debate then the PABIAC Initiative would have failed. The last word should perhaps be given to an employee interviewed by Greenstreet Berman, who said, ***“Safety’s changed, if you pointed something out it used to be, “oh it’ll do for now”, but now they just get things sorted straight away”***.

#### REFERENCES

- 1 The effectiveness and impact of the PABIAC Initiative in reducing accidents in the paper industry. Horbury, Hawkins, Rakow, Wright and Collier.
- 2 PABIAC Bulletin No3 - Changing Safety Culture
- 3 Research into Health and Safety in the Paper Industry. Horbury and Bottomley, Health and Safety Laboratory Report IR/RAS/98, Sheffield:HSL



**ANNEX**

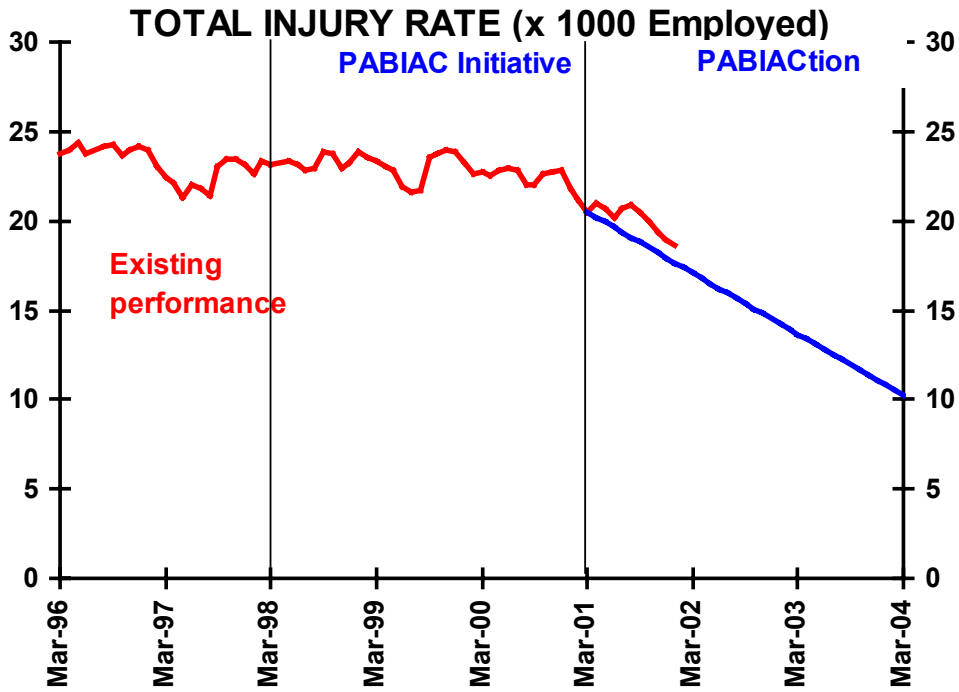
**RECOMMENDATIONS**

The Greenstreet Berman Report makes the following recommendations:

- 1: PABIAC should review other performance measures to gauge progress in health and safety.
- 2: The PABIAC Initiative should be continued.
- 3: The Initiative should be modified to consolidate its successes.
- 4: The next phase of the Initiative should have a 'brand name' to ensure continued buy-in.
- 5: The notion of continuous improvement should still to be a key element of the initiative, perhaps through the use of accident reduction rolling targets, e.g. 10% reduction per year.
- 6: HSE should continue to exert influence on CEOs.
- 7: The key elements of tripartitism and partnership should be continued.
- 8: The initiative should be tailored to suit the maturity of different mills safety management systems.
- 9: Prior to commencing an initiative, the evaluation methods and criteria need to be designed and built into the initiative.
- 10: Research needs to be carried out to explore the feasibility and value of determining cost effectiveness



### Paper Industry Injury Trend Requirement (12 Month Rolling Total)



Statistics provided by the Paper Federation