Behaviour Based Safety Programs

Introduction: Behaviour Based Safety Programs

What are Behaviour Based Safety Programs?

Behavioural Based Safety is an approach to safety that focuses on workers' behaviour as the cause of most work-related injuries and illnesses. These programs are being introduced in Australian workplaces, and so we have produced a Kit for health and safety reps to provide information on what they are, what's wrong with them and what workers can do in their workplaces.

In May 2005, the ACTU held a Seminar, **Oh Behave!** looking at behavioural safety approaches to managing health and safety. One outcome was an undertaking by the VTHC and a couple of other unions (AMWU and SPSF) to develop a kit to assist OHS reps and delegates to understand what such programs are, and the issues unions have with them.

The kit is version 1 of a work in progress, and so we welcome any comments and suggested changes from unions, OHS reps, delegates and workers who read it and use it. Please email comments to rmusolino@vthc.org.au - Renata will respond to all comments.

Acknowledgement:

This Kit is an amalgam of the work of many trade union and other health and safety activists, both here and overseas. Thanks to all of them for their ideas, work and dedication to improving worker health and safety. Section 5 of the Kit has a list of useful resources and places to go for further reading.

Section 1: What is BBS?

What are Behaviour Based Safety Programs?

Behavioural Based Safety is an approach to safety that focuses on workers' behaviour as the cause of most work-related injuries and illnesses. Promoters of behaviour-based safety programs maintain that **80 - 96%** of workplace injuries ***are caused by workers' unsafe behaviours.*** Once the programs identify the workers who are behaving "unsafely", they are coaxed, cajoled and/or threatened into behaving “safely” on the job or sacked.

According to the UK’s Health and Safety Executive, the most common Behaviour Based Safety Programs:

> ‘require front line staff to carry out behavioural safety observations on their colleagues’.

The observers are trained, and the results are usually fed back on a one-to-one basis. Some programs do not use one-to-one feedback, but have a group of observers counting instances of ‘unsafe behaviour’, collating the data and reporting back to the group, sometimes developing ‘safe/model’ behaviours.

Unions and others, including health and safety specialists and academics are uncomfortable with these programs because, no matter how well they disguised, the basic assumption is that workers unsafe acts are the cause of workplace injuries and disease. We can summarise our concerns into thirteen facts that a trade unionists should know about Behaviour Based Safety Programs;

1. Observing others’ behaviours focuses *on the end of the chain of events* that lead to a worker’s actions……..just look at any proper accident or incident investigation root cause. BBS promotes the lie that accidents are caused by one event, when all the research shows a chain of events leads to accidents,

2. Observing workers’ *behaviours does not ask the questions “why”* is s/he doing that job that way?; why is s/he doing that job?; why is s/he using that chemical? etc,

3. Observing others *only looks at what happens often and repeatedly* e.g. breakdowns, jams or quick production runs or days when staff are short are not taken into account. These programs miss any *unusual or complex unsafe* events.

4. Observing what *workers are doing will not give <u>any</u> information* about the inherent dangers in a work process. Observing someone’s behaviour does not give any information about the effects of:

    a) fumes e.g. benzene which causes cancer,
    b) dusts e.g. asbestos , ceramic fibres, silica, cadmuim,
    c) epoxy resins or two part paints or hair dyes causing asthma
    d) biological hazards, infections,

5. O*bserving workers and changing their behaviour* can only change the decision making at the lower level of decision making. It is very hard to affect the big decisions without asking "why". See 2. above.

6. *Observing workers takes lots of time and cost*s a lot. Over time this often crowds out other health and safety activity e.g. focussing on hazards at source and implementation of hierarchy of control approaches,

7. As one H&S expert[1] said– rather than these programs being the cherry on top of a multifaceted OHS program, BBS can crowd other approaches out and end up being the poison garnish that ruins the whole dish,

8. Observing what *workers are doing, does not observe what managers or the Board are doing or not doing.* Managers, owners or the Board are the ones with the power and access to resources to make the necessary changes for improved conditions. This is recognised as the duty of care in both common law and OH&S law,

9. *Observing workers working with clients cannot answer questions* about factors which lead to stress e.g. fatigue, emotional pressures, anxiety, workload, decision making violence and aggression, bullying,

10. Observing *what workers are doing, tends to blame the worker*, even if the program tries not to e.g. even if it is anonymous, voluntary etc. It perpetuates the myth of the careless worker,

11. Observing workers can put worker against worker,

12. Observing *workers does not try to answer the question* - if we moved "Bill" from this job would someone else be likely to be injured, because when we focus on Bill we often cannot see beyond him. If it is possible that someone else *could* be injured then the problem is NOT with Bill's individual behaviour, but with the job or the system, or something else,

13. Observing *workers does not question those who make decisions* about how production is designed, the workplace is organised or laid out etc. Managers, owners or the Board make those decisions.

[1] Andrea Shaw at ACTU seminar, May 2005, Melbourne

Are these programs new?

Many of these programs are based on the old approach of immediately blaming or disciplining workers when accidents/injuries occurred. Some programs still use this approach e.g. traffic light cards in the example on page 18.

Modern, new style BBS programs are sold as being just one, albeit very important, element of a broad OHS system. The promoters of BBS say that the programs do not in any way detract from identification/assessment/control of risk. However, diversion of resources from identification/assessment and control is an outcome.

The core features of BBS programs are:

- Observation of workers by workers
- Extensive training provided to those participating, particularly the observers
- Development of a list of "critical worker behaviours" often with input from workers themselves who are invited and welcomed into the process
- Development of 'model behaviours' so that workers' behaviours are measured against their own standards – ie past behaviours.
- Substantial management commitment, including financial.

Additional features include:

- Reward systems eg. bonuses or acknowledgement of efforts and results
- Programs are promoted as 'voluntary' and promoting participation. The programs say in health and safety which is 'Everyone's Responsibility' not recognising who has power to make decisions.
- Utilise and appropriate current participative and representative structures – e.g. elected H&S Reps, union delegates, and OHS committees.

Many employers like the approach of BBS because the programs take the focus off what they are doing and onto watching workers. The programs often:

- allege that 'research' and 'statistics' support their claim that up to 95% of accidents are the result of *at risk* behaviours; employers feel comfortable – the blame the worker' explanation. Shifting blame = shifting responsibility
- focus attention to the micro (individual's behaviour), not the macro (risk control)
- make workers 'take on' responsibility – the focus shifts from what the employer should do to what workers can, and should, do for themselves
- appear to make the workplace more democratic, involve workers and empower them, but in reality disempowers workers
- use the functioning union structures (like OHS reps and committees) – and try to 'tame' them or render them redundant

- encourage employers to 'blame' the decision to introduce BSC program on their corporate master in the US, that it is not a local management decision. In fact, the local management claim that they are 'just part of the program' like the workers
- provide a mechanism and a way for workers to develop a way of disciplining fellow workers.

Behaviour Based Safety Programs, at the beginning, can look attractive to workplaces (and workers) because the people introducing the program

- Talk directly to workers – in language that is less technical than risk assessment language, and is easier to understand
- Seems to make sense: it says that behaviour, or human factors, are the cause of great majority of accidents, and therefore, that these behaviours need changing, and that this system works - The programs use language 'ABC' which stands for Antecedents – Behaviours – Consequences
- Appeals to sense of what is right – it says OHS is Everyone's Responsibility and it looks like management is showing commitment
- Involves workers and H&S Reps as there are more resources going into increased health and safety training and skills development
- Involves workers as coaches with potential to change behaviour and participate in the decision-making processes
- Gives recognition, encouragement and rewards, through teams, prizes or fun activities, to workers and groups of workers
- The programs claims to:

    - be additional to all other health and safety programs/activity, not in place of 'traditional' risk assessment and control
    - address illness as well as injury
    - empower workers
    - be successful in that it targets 'unsafe' behaviour only – and can 'prove' that it works

The BBS programs often improve safety, in the short term, **because** nothing else was being done before. Despite their supporters claims these programs aim to shift the responsibility from employees and towards workers. The programs have their origin in management practices aimed at increasing managerial prerogative and pitting worker against worker, not in H&S prevention.

Section 2: What Can We Do?

If your employer is looking at introducing these programs – what can you do?

1. **Be prepared:** know what a Behaviour Based Safety program is, why it may be attractive and what the problems are. Read the background material and maybe do some of the exercises in **Section 3.**

2. **Ask lots of questions**: Don't agree to anything that might sound like a BBS Program this. See the *next page for suggested questions.*

3. Insist that the Employer consults with H&S Reps, as the law says they must: use your rights to be consulted prior to any change, which may have an effect on health and safety; as both the H&S Committee or as individual H&S Reps.

4. Contact your union if you are unsure about what it is that your employer is trying to do.

5. Make sure accidents, incidents, near misses as well as work overload, fatigue or arrangements unsafe shifts are reported. These are all health and safety risks.

6. Ensure H&S Reps are informed and have access to the *Injury and Incident Registers*

7. Ensure your reporting and accident investigations are thorough and involve workers and H&S Reps.

8. Talk amongst yourselves, with the union delegates and the members about the program, decide what you are going to do, eg mass meetings to discuss what the program means.

9. Decide what your workplace health and safety system should look like; use the checklist on *"How does your workplace score?"* This list helps show where you can do better.

10. Put your proposal (from point 8) to the employer. This will help you challenge their or their consultant's assertion that the BBS program is the magic silver bullet for health and safety.

Be Cautious - Ask lots of questions!

If your employer wishes to introduce one of these programs or your workplace already has one, it is useful to ask the following questions

If you answer YES to any of the following: then the proposal is about shifting responsibilities towards workers

1. Are there any disciplinary features or individual rewards for lack of accidents/ Incidents? etc
2. Does the plan involve observing others working?
3. Does the plan involve observing only *workers* i.e. if there is a plan that observes managers, owners, directors, the CEO or the Board's activities?
4. Has there been a visit by consultants marketing behavioural safety systems (or talking about the 'next' step in the OHS – looking at unsafe behaviours)?
5. Is there a Lost Time Injury reward system (eg if an injury is reported then everyone loses the chance to enter the raffle, team or coach of the month etc...)?
6. Does the program use language like: antecedents or activators, behaviours, consequences (A B C); Positive, Soon or Certain consequences; at-risk behaviour; workplace or safety culture; key performance indicators and behaviours?
7. Is management suggesting a program like DuPont or B- Safe or some wizz bang fix it all program?

If you answer NO to any of the following: then the proposal is about blaming workers!

1. When giving examples of how the program works, do any of the examples of Key Behaviour Indicators refer to managers' behaviours?
2. Will the plan allow a chain of events to be investigated?
3. Do the observations include looking at risks that have health effects? (What observations are being made for health effects?)
4. Does the list of behaviour measures include management performance behaviours such as:

    a. Number of discussion per week between managers and employees where the main topic of conversation is safety?
    b. Percentage of agreed items that have been completed each week?
    c. Number of health and safety concerns that are resolved each week?

    d. Number of higher level hierarchy of control measures that are implemented every three months e.g. elimination; substitution; engineering controls; redesign, of plant, work layout or work flow?

Remember Behaviour Based Safety Programs are based on experiments on rats:
"So if it is rat psychology, who is the Pied Pier and who are the rats?"
Cathy Walker. CAW

Section 3: Exercises

In this section there are a number of exercises that will help you and the members make some judgements about Behaviour Based Safety Programs.

Although you could do these exercises on your own they are designed to be worked through with a group.

Introduction

Employers that introduce BBS programs are trying to say we all have equal responsibilities when it comes to health and safety. These exercises are designed for you and the members to ask yourselves about who does share the responsibilities on health and safety.

Exercise 1: Who is Responsible?

The Aim of this exercise is to draw a picture of who is responsible for what in the workplace.

- Step 1

Draw up two columns with the following headings: 'Employer' & ''Me/Workers'

- Step 2

In the relevant column fill the answers to the two questions

a. What things does the employer have final say about?
b. What things do workers have the final say about?

- Step 3

Take 10 minutes for each column.

Then compare the lists.

- Step 4

Take 10-15 minutes to discuss why you think the lists are different and whether that has any impact on what sort of health and safety program you should have in your workplace.

Your lists may look like this.

Employer	Me (or) Workers
• Who is employed and how (full time, part time, casual, labour hire) • Hours of work • Job description • Allocation of work • Shift arrangements • Amount and arrangements for overtime • Materials, including substances/products used • Type and quality of PPE • Plant and maintenance of plant • Allowances • Tools • Training – who gets trained, what in, who delivers it, when it's done • Consultants – who, when and what for • Development and implementation of policies and procedures • Chain of command • Budget • Workplace organization • Reporting mechanisms • Meetings – what type, when • Access to information • Emergency evacuation procedures • Provisions of mechanical aids • Design and condition of workplace **Can you think of any more?**	• What I do – how I work: But this is also affected by: • The time I'm given to complete the work • The level of training I have received • The state/condition of the tools/equipment I must use • Workload • Design of the workplace • Information on hazards/risks **Can you think of anything more?**

Exercise 2: Who makes decisions?

BBS programs get workers observing each other with the aim to encourage workers to make different decisions about how they work.

- Step 1

In a day or week of work many decisions are made that affect health & safety. Ask the group to list all of these decisions. Your list could look like.

- the hours of work of a workplace
- buying the new machine to replace the broken one
- spending the money on the new guard
- replacing the hazardous chemical with a safe one
- engaging consultants for advice
- implementing a safe system of work
- implementing the policies and procedures
- engaging contractors
- hiring extra staff to share the workload
- Fixing ventilation, lighting or floor surfaces
- Maintenance schedules

- Step 2

Beside each decision list **who** makes that decision or final say on each item in your list.

Exercise 3: What sign is that?

Many workplaces have a sign up listing the numbers of days since a Lost time Injury.

- Step 1

List the reasons why these signs are put up.

- Step 2

Think of some signs which may have a different purpose. Here are some suggestions for different signs:

a. a sign that lists how many days it took before management fixed a problem or labelling all the machines, processes or containers of chemicals with a danger sticker; or

b. tag that asks when will the fault be fixed; or

c. display the number of the CEO or general manager who has the power to make decisions on getting things fixed.

- Step 3

List the reasons why you think workplaces have LT1 signs rather than the examples in Step 2.

Exercise 4: A Health And Safety Map

This exercise is sometimes called "mapping"'. By answering these questions you can get a snap shot of where the holes are in your organisation around health and safety or what immediate risks need to be addressed.

To know where to start you need to know where you are. The checklist below is basic, but you need to be able to answer these questions. This may help you to develop what you and your colleagues decide on what or where your health and safety system should be. Amend the checklist to suit your own workplace – eg vary the list of hazards.

Checklist Ex 4

Numbers of workers in your workplace.	
Numbers of OHS Representatives.	
Do you have Designated Work Groups? If yes, how many?	
Do you have Deputy Reps? How many?	
Have the H&S Reps and Deputy H&S Reps attended union OHS training? …… …… ……	
Noise	
Toxic, hazardous or dangerous chemicals	
Risky manual handling	
Welding fumes	
Machinery	
Mobile plant	
Bullying	
Dangerous Hours of work	
Speed of the line	
Biological hazards	
Slips, trips falls etc	

Which of these issues do the members or potential members have most complaints about? (List them) …… …… ……	
Are there any groups of workers who have particular needs or who are not well represented as H&S Representatives or on the Committee e.g. young workers, casuals, women workers, workers with difficulty understanding English etc. …… …… ……	
Do you have Union information on these displayed in your workplace?	
Have you used this information to improve the profile of OSH and the Union on the job?	
Have you passed this information onto your delegate and organiser?	
Do you have access to union based information on the internet?	

Exercise 5: Workplace Score

This list of questions that may help you decide on how well your workplace really does on health and safety. Most of the questions are not about the risks but about how workers are treated and how active workers are in working together to improve our working conditions.

The questions below are a start to get a feel for how well your workplace is organised.

Part 1: Please tick

	Yes	No
1. Does your employer make health and safety a priority ?	❑	❑
2. Are workers always consulted about health and safety issues or changes which may affect health and safety (new chemicals, machinery, work processes, rosters or staffing arrangements)?	❑	❑
3. Do workers elect the health and safety representatives?	❑	❑
4. Is there an *active* health and safety committee? Is it half worker reps?	❑	❑
5. Is the H&S Committee half reps?	❑	❑
6. Are the health and safety reps and/or committee members trained by the union or union friendly trainers?	❑	❑
7. Is the workplace inspected for hazards/problems regularly?	❑	❑
8. Do workers participate in the inspections?	❑	❑
9. Does the employer always fix health and safety problems promptly?	❑	❑
10. Is there enough time to meet and deal with health and safety matters?	❑	❑
11. Are all workers, including casual, contract or agency workers, inducted and trained about health and safety?	❑	❑

Workplace Score: ...../11

Part 2: From your workplace score for Part 1 take off one mark for yes ticked below	**Yes**	**No**
1. Are workers ever asked or pressured by management not to raise health and safety issues?	❑	❑
2. Are people ever intimidated or bullied by management as a result of raising health and safety issues?	❑	❑
3. Are sick or injured employees pressured by management to return to work before they are ready?	❑	❑
4. Are there unrealistic expectations, demands or targets at your workplace?	❑	❑
5. Does cost cutting result in increased health and safety problems?	❑	❑

Score: Part 1 minus Part 2 = .../11

Your workplace scores:

More than 8/11 - keep up the good work.

But are all the part-timers, casual and contractors included in health and safety meetings, inspections etc? Have you ever thought about doing some awarenss or education outside of your workplace e.g. articles in the local paper, talking to schools and TAFE colleges or apprentices. Do health and safety reps and deputies attend any union health and safety committees or forums; is anyone involve in health and safety campaigns like Industrial Manslaughter, etc?

5 to 7/11 - room for improvement.

Are you using all your rights under the health and safety laws? We need to be more organised. Pick on three of the questions that lowered your score. With the members and other OHS Reps/deputies/delegates decide on what action is needed.

2 to 5/11 - must do better.

Remember whose health and safety is at risk. OHS reps have the right to be involved in inspections, to be consulted before changes happen, and much more (Part 4 of the 2004 OHS Act). Insist on your rights.

Decide on three problems that the members agree need attention. Set a timetable for your employer to fix them. You may need to:

- issue a PIN/written notice/Default Notice,
- negotiate an agreement with your employer about how they are going to improve their performance or
- get outside assistance.

Less than 2/11 - very poor, remedial action required.

This workplace is a real trap, with your employer taking little action on health and safety. Your employer thinks workers have *no* **role** to play in health & safety. Get union assistance now.

Section 4: Background information on a number of topics related to BBS programs.

4.1 Causes of accidents

The causes of accidents are many

The General Manager of DuPont Australia, in an interview with Professor Andrew Hopkins [2], said:

> *"both government safety organisations and unions are quite simplistic on safety. They focus on equipment, not on the acts of people. In our experience, 95% of accidents occur because of the acts of people."*

Dupont is correct in that safety is not simple; but their conclusions are incorrect. The Dupont way focuses on just one part of a "chain of events" that can lead to an accident. Accidents and negative health outcomes have many causes. Dupont does not mention health at all, just safety.[3]

Where do the statistics come from?

The statistics (that 80 - 96% of workplace injuries are caused by workers' unsafe behaviours) stem from "research" conducted by an insurance investigator named H.W. Heinrich in the 1930's in the United States. Heinrich's "research" consisted of reviewing supervisors' accident reports and drawing conclusions about accident causation from those reports. Most of those reports blamed workers for the accident. Heinrich concluded that 88% of all workplace accidents were caused by workers' unsafe acts.

The union approach, and that of modern OHS regulations, is to use the hierarchy of control i.e. from the best or most effective way of getting rid of the risk, elimination, through to the worst or less effective method, the use of safety gear. And of course any combination of these, as the cause of accidents and ill health will have many contributing factors (multifactorial).

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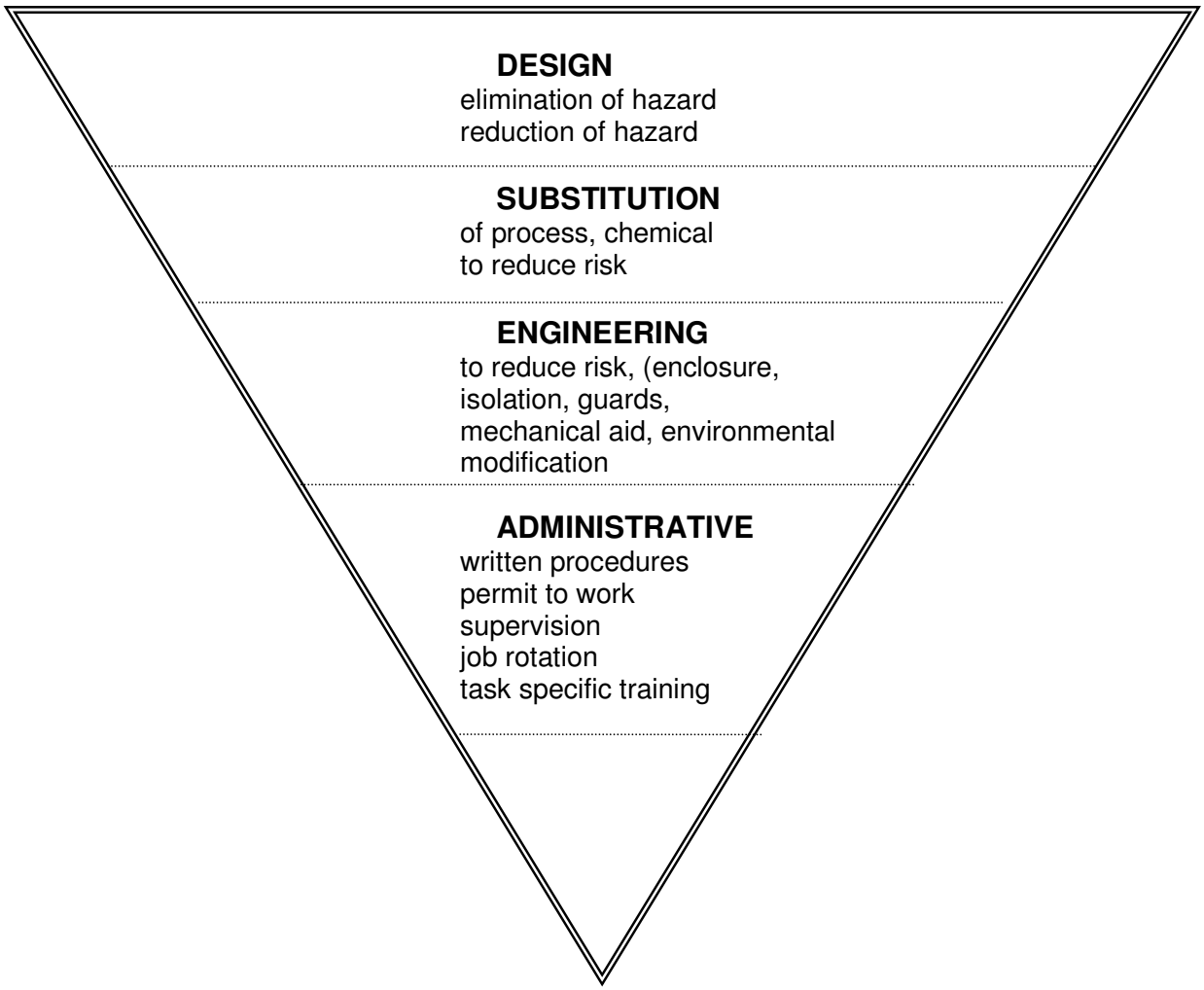
[2] Paper presented ACTU Seminar, May 2005

[3] See section 4.3 on Duponts safety and environment record in the United States


DESIGN
elimination of hazard
reduction of hazard
SUBSTITUTION
of process, chemical
to reduce risk
ENGINEERING
to reduce risk, (enclosure,
isolation, guards,
mechanical aid, environmental
modification
ADMINISTRATIVE
written procedures
permit to work
supervision
job rotation
task specific training

Blaming those with the least say

Although the supporters of BBS programs say they do not “blame workers” this is what happens if you do not ask ”why “ someone did what they did. By asking “why” we can trace the chain of events and reasons that lead to workers being exposed to risks.

When we begin to ask why the behaviour occurred we move back along various chains which invariably implicate management. Just as the great majority of accidents can be attributed to unsafe behaviour by front line workers, the great majority of accidents are at the same time attributable to actions or inactions by management. An example will make the point.

A worker descending a set of stairs, falls and is injured.
Why did he fall?

He was not using the handrail, as he was required to do by company policy.
Why not?

He was using both hands to carry tools.
Why?

If he used one hand to hold the rail he would have had to make more than one trip up and down the stairs to get his tools to the lower level.
Why didn’t he do this?

Because there was pressure from the supervisor to get the job done quickly.

Production pressures routinely lie behind unsafe actions by workers in this way. Despite all the company rhetoric about putting safety first, the experience of many workers, not all, is that production takes precedence over safety. But we can go further than this. The failure to use the handrail is not the only reason the worker fell.

He fell because the stairs were too steep, far steeper than would be acceptable in the building code for houses, for example.

Why were they so steep?

Because the designers had not considered the hazards of steep stairways.

Why had the designers not considered this hazard?

Because they had not adopted the philosophy of designing out hazards at source.
Why not?

Because the regulator was not enforcing the relevant regulations.

This example could easily be developed further, but this is far enough to demonstrate the truly multi- causal nature of every accident.

4.2 Do these programs prevent disasters from occurring?

- These programs would not have stopped:

- Columbia 2003 space shuttle disaster: senior management made a decision to ignore damage that happened at takeoff.

- Challenger space shuttle disaster; despite the opposition of engineers, management decided to go ahead with the launch.

- Esso Longford explosion: no one at the plant on September 25th 1998, knew anything about cold brittle fracture (which allowed the vessel to explode), including senior supervisors.

- The 1994 Moura mining disaster in which 11 men died: even though management knew the gas levels underground were rising they made the decision not withdraw the men that night

- A printer losing a finger tip when cleaning a rotating roller because there was no other way to follow the instruction of cleaning… the roller could not be stopped for production reasons, the nip point had not been guarded, no-one in management had acted on near misses and there was no reporting system in place to allow information to be shared between the three shifts about near misses.

4.3 Dupont's STOP safety program (from U.S. Steel Workers Publication)

In its March 2004 research report titled "Irresponsible Care," the US Public Interest Research Group (US PIRG), a non-profit, non-partisan public interest advocacy group, analysed data compiled by the National Response Centre (NRC), the sole national point of contact for reporting oil or chemical discharges into the environment. The NRC database includes every accident and incident reported to the agency. From the time period of 1990-2003, DuPont ranked number three overall in accidents with 2,115-nearly 150 a year![4]

DuPont is one company that sells a safety program called **STOP**. Here are some examples of DuPonts Behaviour, USA.

Sulfuric Acid Leak

DuPont was issued four citations for the October 11, 2004 leak of hundreds of pounds of sulfuric acid into the ground, water and air at its Wurtland, Kentucky facility.[5]

DuPont was cited for:

failing to limit the number of people near the cracked pipe responsible for the leak
not having back-up emergency staff
failing to have emergency response employees wear protective breathing equipment during the spill
having no designated safety officer

Meanwhile, DuPont faces several lawsuits from residents who claim the October spill made them sick. More than 75 residents of Greenup County have filed lawsuits in federal court against the company. Many of the people who claim they now have breathing and vision problems are first responders – fire, police and ambulance crews who evacuated people near the plant.[6]

Hydrogen Fluoride Toxic Cloud

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[4] Purvis, Meghan and Bauler, Julia. March 2004. US PIRG. Irresponsible Care.

[5] Musgrave, Beth. March 17, 2005. Lexington Herald Leader (Kentucky). DuPont Cited for Sulfuric Acid Spill in Kentucky.

[6] Musgrave, ID.

In July 2003, the Justice Department and the EPA reached a $1.1. million settlement with DuPont in connection with Clean Air Act violations involving a May 1997 chemical release from DuPont's fluoroproducts plants in Louisville, Kentucky. DuPont was unable to contain or block the release for approximately 40 minutes. During that time, approximately 11,500 pounds of hydrogen fluoride, escaped into the air.

The escaping hydrogen fluoride formed a toxic cloud of gas which migrated from the facility. As a result, several nearby chemical manufacturing plants were shut down and evacuated for several hours, and local public health and safety officials directed nearby residents and school children to stay indoors until the public health threat from the hydrogen fluoride abated.

Hazardous Products, Without Warnings?

DuPont was one of four companies that were sued by 13 workers injured in a fire at the Malden Mills factory, Lawrence, Massachusetts. The blaze, which swept through the Malden Mills complex on December 11, 1995, levelled four buildings and injured more than 30 people. It was one of the largest industrial fires in history. DuPont supplied material that fire investigators believe may have sparked the inferno. The case was settled December 13, 1999 for an unspecified amount.[7]

In 1981, DuPont began a study that showed 2 out of 8 Washington Works female workers had children with birth defects similar to those found in rats in another study. [8] In 2004, EPA sued DuPont for hiding both studies and evidence of drinking water contamination. [9] 3M stopped making APFO based on principles of "responsible environmental management" causing DuPont to manufacture APFO itself. Now, the EPA, communities around DuPont plants and consumers are concerned about the toxicity of a chemical that makes Teflon, a product that once provided so much convenience.

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[7] Associated Press. December 14, 1999. Workers settle suit in Malden Mills fire.

[8] Environmental Working Group. "PFCs – A Family of Chemicals That Contaminate The Planet." At: www.ewg.org

[9] Ward, Ken Jr. Sept. 10, 2004. DuPont agrees to pay $107 million; Wood county plant also must help reduce C8 in drinking water. Charleston Gazette (West Virginia).

DuPont Does Not Tell the EPA or Communities

On or about June 14, 1984, DuPont also found C8 in West Virginia and Ohio tap water near the Washington Works plant, [10] the same plant where Teflon is made and female workers had children with birth defects. DuPont disposes of waste from the plant in the Dry Run Landfill. Until recently, the landfill was unlined and polluting the soil, ground water and drinking wells with C8. Not until a local farmer sued DuPont for polluting Dry Run Creek and killing 280 cows in 1999 did the community begin to learn the extent of its drinking water contamination. [11] Even through levels exceeded DuPont's original "community exposure guideline" of one parts per billion (ppb), the company did not tell residents or the EPA about the contamination for up to 20 years [12]

Residents in neighboring communities now drink only bottled water, as per the suggestion of a Pennsylvania scientist. [13] (Water purchases are reimbursed by DuPont.) Residents await more studies to determine if a link between disease and the C8 contaminated water exists. If it does exist, DuPont will have to pay $235 million for medical monitoring as part of the settlement of a class action suit brought about by 50,000 to 80,000 residents. [14] DuPont has already paid $107.6 million as a result of the settlement.

But, like in the above cases, the scientific community is finding reason to believe C8 is hazardous to our health. Testing of workers, who once made the chemical by 3M, found workers were more likely to die or seek treatment for cancers in the reproductive tract and have weakened immune systems. [15] DuPont disagrees there is evidence C8 may be toxic to humans, although the company concurs with the EPA that it is toxic in animals. DuPont writes there are no health effects even in workers who have "significantly higher exposure levels than the general population."[16] Yet, DuPont has announced it will reduce its use of C8 in Teflon products and reformulate telomer products, such as those that go on our clothes and carpeting, by the end of 2006.

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[10] Environmental Working Group. "PFCs – A Family of Chemicals That Contaminate The Planet." At; www.ewg.org

[11] Cortese, Amy. November 2003. DuPont's Teflon Dilemma. How Chad Holliday, the champion of sustainability, is managing and environmental challenge. *Chief Executive.* Vol. 193.

[12] Hawthorne, Michael. February 16, 2003. Internal Warnings. Industry memo show DuPont knew for decades that a chemical used to make Teflon is polluting workers and neighbours. Columbus Dispatch (Ohio).

[13] Newsinferno.com. August 22, 2005. Major Study Warns People to Avoid Drinking Water Tainted with Teflon-Related Chemical. And, Hrach, tom. August 23, 2005. Free bottled water available for reimbursement from DuPont. The Marietta Times (Ohio).

[14] Ward, Ken Jr. Sept. 10, 2004. DuPont agrees to pay $107 million; Wood county plant also must help reduce C8.

[15] Environmental Working Group (EWG). 2003. PFCs: A chemical family that contaminates the planet. Available online at ***http://www.ewg.org/reports/pfcworld/***

[16] *www.pfoa.dupont.com*

4.4 An example of a Behaviour Based Program

This example is from a large Australian employer, with thousands of employees. The information below is what was handed to supervisors to implement in their work sections. Supervisors are asked to issue cards to workers about their "safety behaviour".

Team Talk	Traffic Light Behaviour Based Safety Program
Reason for Team Talk	To communicate – Traffic Light Behaviour Based Safety Program to all Team Members
Duration	10-15 minutes
Material Needed	Sign off sheet required
Materials Provided	Red, yellow and green cards and the "Traffic Light Behavioural Safety Program" Posters
Note to Facilitator	Read the team talk words that are in BOLD The words in the boxes are for your information only. The boxes contain directions and helpful hints for your presentation
Actions required prior to team talk	The store safety committee is required to discuss and agree the recognition and disciplinary process for your store. Recognition (green card) at your store might be: 3 green cards (per person) in a week – 3 safety pens or 3 green cards (per person) in one month and movie tickets or $10 CML .vouches (this is to be discussed and agreed in safety committee meeting). Poor performance (red card/yellow card) at your store may include: 1 red card – performance discussion with your Store Manager. The safety committee must also consider who is able to issue cards in your store. i.e. Dept Managers only or Safety Committee only or a

Team Talk	Managers only or Safety Committee only or a combination of management and safety committee. When issuing cards, please consider one other team member (and dept managers) who may be working in the area at the same time. For example if a team member has been issued with a red card for performing an unsafe act and their line manager is working close to them. Their non action is ALSO an unsafe act and they should be issued with a red/yellow card for allowing the unsafe act to occur. We are all responsible for creating and maintaining safe workplace for everyone, everyday. How do we do this? We develop a culture in our business that makes safety a part of what we do everyday. The “Traffic Light Behavioural Safety Program” or Traffic Light System is a program designed to reward and recognise good safety behaviours in your workplace. If you perform a SAFE act you will receive a green card. The green card means that you are contributing to a safe workplace. If you receive a Yellow card this means that you are being cautioned for an unsafe act. If you receive a Red card this means you have a performed a careless an unsafe work practice.

Section 5: Resources

As these programs become more widespread, so too do resources and articles debunking them. Take a look at some of the material available:

- Nancy Lessin *BBS - A Union Viewpoint from* www.ohsrep.org.au
- *Behavioural Safety Approaches To Managing Health and Safety* www.actu.asn.au/public/ohs/ From the ACTU Seminar, May 2005. Speakers who provided papers included Andrea Shaw, Dr Verna Bluett, Professor Andrew Hopkins, as well as from Mr Lloyd Fletcher Principal Consultant, B-Safe Australia, a company promoting BBS programs
- Professor Andrew Hopkins: *"What are we to make of safe behaviour programs?"* Working Paper 36, National Research Centre for OHS Regulation www.ohs.anu.edu.au
- From the US Steelworkers' Union report, *'Not walking the talk: DuPont's untold safety failures'(* www.dupontcouncil.org) on the real OHS performance of DuPont - creators of one of the world's most widespread Behaviour Based Safety Programs, STOP. Also check out the USW DuPont council website www.dupontcouncil.org/ and a new website Dupont Safety Revealed www.dupontsafetyrevealed.org/.
- Excellent trade union resources on Behaviour Based Programs are available through Hazards Magazine (www.hazards.org/bs), a terrific resource supported by the UK's peak union council the TUC. Unions and union OHS reps should subscribe to it www.hazards.org/subscribe/index.htm.

Useful Trade Union Health and safety sites

Regular union newsfeeds or journals on health and safety can be subscribed to via:

- LabourStart www.labourstart.org
- Risks e- magazine from the TUC www.tuc.org.uk/h_and_s/
- and our own SafetyNet Journal www.ohsrep.org.au/index.cfm?viewmode=safetynet&section=4&category=45

Other useful trade union sites with general health and safety information include

- Canadian Autoworkers Union www.caw.ca/whatwedo/health&safety/)
- New Zealand unions www.worksafereps.org.nz/
- NSW www.workershealth.com.au - the longest established workers' health centre in Australia
- Australian Manufacturing Workers Union (AMWU) www.amwu.asn.au/