

MOVING SAFETY FORWARD AT TOOWOOMBA FOUNDRY: ATTITUDES & COMMITMENT

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ABSTRACT

Toowoomba Foundry is an iron manufacturing firm, currently employing 213 people. A major interest of this study is to examine cultural aspects that may impede the full realisation of safety program targets within the Toowoomba Foundry. This research was undertaken in response to management recognition of the need to identify cultural barriers to the successful implementation of the safety program to facilitate a zero Lost Time Injury Frequency Rate (LTIFR) target for the year 2000.

The main objectives of this project were to determine management and employee attitudes to safety, commitment and implementation of the safety program within Toowoomba Foundry, and provide practical recommendations for improvement. The completion of these objectives enabled the investigating team to identify why Toowoomba Foundry's safety program has plateaued. This project has drawn on the theoretical base of the cultural aspects of organisational change and development.

A qualitative methodology has been applied to understand the issues and ensure all data collection contributes to high quality conclusions and recommendations. This involved collection of exploratory data, primary data such as depth interviews and a focus group, and secondary data from literature and case studies. The project's population included Toowoomba Foundry's 213 employees. The sampling frame incorporated all interviewees: supervisors and line managers involved in the safety program, and shop floor employees selected randomly with the cooperation of management. The confidentiality and anonymity of interviewees and other participants in the study were protected by the student interviewer group.

Findings include that Toowoomba Foundry has initiated some excellent measures to improve their safety record. However, an entrenched conservative culture, ineffective communication and contrasting perceptions of levels of commitment have caused the safety program to plateau. Recommendations include modifying the STOP program to include manual and chemical handling, and calculating LTIFR separately for individual work groups. The limitations of the study included the availability of employees to participate in the focus group and a small sample size, which may be unrepresentative.

INTRODUCTION

Project Background and Scope

Established in 1871, Toowoomba Foundry is an iron manufacturing company that currently employs 213 people at the time of writing. Foundry employees and supervisors and managerial staff formed the basis of our project. The request for conducting research arose from management's recognition

that the safety program has plateaued and needs to continue to move forward to meet a zero Lost Time Injury Frequency Rating (LTIFR) target in the year 2000.

A focus of research in this project is to test attitude and commitment to the safety program and its implementation. The student consulting group examined attitudes to safety, implementation of the safety program, and commitment to the safety program at Toowoomba Foundry. The consulting group has drawn on the theoretical and practical elements of organisational change, including attitude and commitment to safety programs, as well as implementation issues.

Sources of Information

Information for this report was gathered from a cross-section of employees from Toowoomba Foundry and from relevant historical and contemporary literature. This information was gathered using an exploratory research design, while accessing both primary and secondary data. A focus group and depth interviews were conducted during the research.

Project Objectives

The purpose of this report is to identify why Toowoomba Foundry's safety program has plateaued. In order to answer this research problem we have developed the following project objectives:

1. Determine management and employee attitudes and commitment to safety programs, and implementation issues.
2. Provide practical recommendations for improvement.

Ethics

There was no deception during the compilation of this report. Maintaining two-way communication ensured integrity. Full disclosure of all information obtained during research was a priority. The consulting group ensured informed consent, confidentiality and anonymity where possible by verbal agreement with participants.

MOVING SAFETY FORWARD: ATTITUDES & COMMITMENT — THEORY AND PRACTICE

There are many perspectives on what is involved in organisational change. It can be broadly defined as '... making things different ...' (Robbins, Waters-Marsh, Cacioppe & Millett 1994 p. 787) or, more specifically, defined as '... an alteration in people, structure or technology' (Robbins et al. 1994, p. 381). Just as there is disagreement as to what change involves, there are also differing views on factors that may reduce the effectiveness of change, and ways to ensure success or reduce resistance to change. Several theoretical perspectives on change will be reviewed to provide insight into successful methods of implementing change and reducing failure in relation to safety programs. Cultural implications for change will be examined in order to determine components of culture, their effect on change and whether organisational culture can actually be changed. The issue of commitment to change will also be examined.

While Robbins' (1994) definition of organisational change indicates that changing any one of these three components can facilitate organisational change, other authors note that all three systems are

altered in successful change efforts. Tichy (1982) argues that successful organisational change requires changes to technical, political and cultural systems — change to only one will create problems. He states that these three systems are interdependent and that, in fully functioning systems, they reinforce and support one another. A change in one system without a corresponding change in the others is likely, in Tichy's (1982) view, to weaken the system as a whole.

Interestingly, much of the literature notes culture as the hardest of the three components in which to achieve successful change (Cummings & Worley 1998). Defined as '... the core assumptions, values, beliefs, norms and ideologies shared by those in the organisation', culture aims to provide organisational members insight into, and rationale for, the activities carried out in the organisation (Stace & Dunphy 1996, p.131). Cultural change is crucial to the success of organisational change: '... you can restructure, re-engineer, delayer, downsize and redesign, but until you tackle the people and cultural elements of your organisation, your drive for organisational effectiveness will be incomplete' (Gustafson & Thrum 1998, p. 24).

There is also some debate concerning whether cultural change can actually be accomplished. While it is possible to change surface elements of culture, such as norms and artifacts, more deeply seated aspects representing values and basic assumptions are more difficult to alter (Cummings & Worley 1998). This is problematic considering that cultural impediments may prevent competitive changes through resistance (Gustafson & Thrum 1998).

Change is likely to be resisted if, as a result of change, employees face uncertainty, or if concern exists about possible personal losses when change may incur. Evidence also suggests people are more likely to resist change when much time has been invested in the current system (Robbins et al. 1994). This may justify the tendency for older people, or those of long tenure, to be more resistant to change. A new safety program can represent significant change for employees so a number of elements are essential for successful implementation (Robotham 1998).

Robotham (1998) details a checklist of factors required for successful implementation of safety programs. The first critical factor is that commitment by management to the safety program must be demonstrated and highly visible (Robotham 1998). It is not enough for management to claim that they are committed to safety; they must visibly demonstrate this commitment through overt actions in order for organisational culture to espouse a high degree of commitment to the program (Robotham 1998). Regardless of the values stated on the mission statement, employees will judge management's commitment by what they actually observe (LaBar 1996). Similarly, Robbins et al. (1994) note that without management modelling, expected behaviours and values, employees will become cynical and distrustful toward the changes that are implemented. Hawkins and Hudson (1998, p. 6) note that '... leaders create a climate that encourages commitment, not just compliance. They manage the most important interactive climatic variables; time, place and mood'.

Effective communication of the safety program is also crucial to its success (Robotham 1998). Communication is seen by many authors as the most effective way to combat resistance to change (Cummings & Worley 1997; Larkin & Larkin 1998). It reduces resistance by making known the facts about the change, what is involved and how people will be affected, before rumours and misconceptions emerge. Communication should be bite-size, informal facts-only chunks (Larkin &

Larkin 1998). This serves to reduce uncertainty, a major contributor to resistance of change (Robbins 1994).

Safety committees can be useful for communicating safety issues, provided members are trained and senior management is supportive. There needs to be both a senior management committee, responsible for developing safety policy, and an employee committee to oversee policy implementation once it has been approved by management (Robotham 1998). Allowing this level of involvement is also noted as a method for reducing resistance to change, as people are less likely to resist a change in which they have been involved (Robbins 1994).

In addition, it is important that once these structures are in place, procedures are employed to ensure that information is communicated consistently and effectively at all meetings, and at all levels. All communication, whether it is face-to-face, newsletters or safety committee meetings, needs to stress safety as the number one priority all of the time. Meetings need to be held at regular intervals. All employees should be involved in these to ensure that employees are receiving the right information, thus, leaving no room for inconsistencies, confusion or resentment to arise (Fisher 1997).

Solidifying changes made in the interest of safety is necessary to prevent workers from reverting to their old ways (Robotham 1998). The changes need to be reinforced in every possible way (Fisher 1997). Mechanisms, including training and incentives, may be useful in rewarding and reinforcing the organisation's commitment to safety. Linking these HR practices to safety performance will also help make safety become intrinsic to the job, rather than an extra consideration at work (Cacioppe 1988).

All employees and supervisors must be trained in safety awareness and practices (Robotham 1998). This training will not only make employees more self-observing, it will also encourage and enable them to encourage others to consider safer methods of working (LaBar 1996). Also evident is that employees who are unaware of safer ways of working have no option but to continue with unsafe practices.

Robotham (1998) also emphasises the importance of accident investigations and safety inspections tailored to specific situations in which they are conducted, and actioned directly after recommendations are made. This has obvious links to the level of management commitment to safety demonstrated (Robbins 1994). To conduct these processes without taking corrective action sends a visible message to employees that management's commitment is superficial, and that safety is not taken seriously (Robotham 1998).

It is vital that program goals are clearly articulated and understood in order to keep efforts focussed (Robotham, 1998). Measurements that are positive and which communicate efforts made to improve safety are more beneficial than traditional measures such as LTIFR which are open to different interpretations (Robotham 1998). These goals must be realistic, but challenging, with all employees aware of what the measures are, and why it is important that they are kept as achievable as possible (Robotham 1998).

DATA COLLECTION AND DATA ANALYSIS

Data Collection and Methodology

Qualitative investigation was used. Kellehear (1993) argues that qualitative research is beneficial because the narratives given by respondents are more instrumental in gaining insights into actual events than are quantitative methods. Exploratory data were gathered by means of informal meetings with the client. Primary data were gathered using depth interviews with selected managers and supervisors, and a focus group with shop floor employees from the machining and foundry sections. Kellehear (1993, p.1) notes that ‘... although often using fewer people than questionnaire surveys, depth interviews and the detailed analysis of their ‘texts’ are seen to penetrate more deeply and sensitively into the subtle world of social and personal meaning’. Focus groups are an unstructured and natural method for interviewing small groups of respondents (Malhotra 1996). Secondary data were collected primarily through examining relevant case studies and literature.

To understand the cultural impediments to the safety program, the attitudes of management and employees at Toowoomba Foundry were investigated. Attitudes toward safety and the safety program, its implementation and commitment to it were examined. The consulting group conducted research in order to produce high quality conclusions and recommendations. This was achieved using a qualitative methodology. This involves ‘... unstructured, exploratory research ... based on small samples, that provides insights and understanding of the problem setting’ (Malhotra 1996, p. 164).

Interview/Focus Group Method & Design

Teams of two consultants per interviewee conducted depth interviews (Appendix 1). The interview schedule was developed in accordance with the areas identified from the project’s objectives, based on the sample ‘Employee Attitude Survey toward Safety’ (Cox & Cox 1996). A list of interview/focus group questions is contained in Appendix 1. Qualitative tools, including open search techniques like open-ended and mirror questions were used to enable interviewees to provide valuable insight on the cultural aspects which have impeded activities commensurate with meeting the safety goals (Eunson 1994, p, 54). Each interview was recorded on audiocassette and lasted approximately 45 minutes. We conducted one focus group, recorded on audiocassette, which was facilitated by two consultants. We were unable to derive a random sample of employees for the focus group due to employee availability issues.

Data Analysis

The data collected were qualitative in nature. The consulting group carefully considered the validity of these data and how the data should be analysed. The data were analysed by classifying the interview responses to determine emerging themes. ‘Classifying pertains to taking the text or qualitative information apart, looking for categories, themes, or dimensions of information’ (Creswell 1998, p. 144). All results were cross-checked twice to ensure that a true picture of the cultural situation at Toowoomba Foundry was formed. This enabled the evaluation of current attitudes, values and basic assumptions that form the culture of Toowoomba Foundry. The analysis was conducted with reference to the themes identified from the current literature.

MAJOR FINDINGS

The respondents at Toowoomba Foundry all agree that responsibility for safety lies with everybody, from senior management to the shop floor. The responses were divided, however, on whether safety comes first. Management maintained that safety had priority over production. However, some employees disagreed, reporting that management's commitment to safety was token and that production was the first priority. The general perception that demanding production targets may not be achievable without some safety concessions illustrates this. A second example is that some employees indicated management failed to consistently wear Personal Protective Equipment (PPE). This contrasted with management's view that they felt employees were comfortable enough in their jobs to stop a process that was not safe.

Included in the employee responses were reports that some employees feared losing their jobs if they spoke, or stopped production. The employees felt that sometimes their requests were not followed through and they became discouraged from reporting safety problems. Other morale issues included the reporting of less than optimum production levels. Employees reported that this had the effect of reducing morale. Frequently the employees did not know what had happened to their suggestions and were unaware of the activities of management. Senior management reported that it is a long-term process for some projects as they involve large amounts of capital and engineering work.

Both management and employees reported that the safety program needs re-energising and that a refresher training course should be provided to all employees. The employees also commented on the generic nature of the program. They felt that additional safety processes and training needed to cover areas such as hazardous chemicals and manual handling. Overall, the respondents were happy with the success of the program. Most managers were positive with the use of the STOP cards. Some employees felt that there was some inequity in the use of the cards, with untrained employees having to ask for green cards, while those trained use readily available white cards. The employees suggested that all employees should be able to use the same card. Both employees and management commented that the nature of work at the Foundry is often unsafe and that the machinery needs to be changed to improve safety. The employees also felt that poor maintenance contributes to an unsafe environment.

A common area of concern was the safety awareness of casuals. The training and induction they receive is not as comprehensive as that of full-time staff and the bulk of the Foundry-specific information was left to individual supervisors on the shop floor. Most managers felt that the safety meetings they held were effective in communicating safety. However, both managers and employees felt that the information was not always being fed back to the shop floor. These managers reported that communication needed to be improved to facilitate safety awareness and ensure all employees know why a lower LTIFR is important. Most respondents knew about the LTIFR, but there were varying figures reported on the rate.

The incentive program to encourage safety was also mentioned. The BBQ after 35 days without an LTI was reported to be popular. Some employees and managers feel incentives are unnecessary, as safety is everyone's responsibility. One manager suggested that senior management should conduct 'walk-throughs', specifically to provide constructive and positive feedback.

DISCUSSION OF FINDINGS

Tichy (1982, p. 64) remarks that ‘... strategic management is the process of keeping the rope together in the face of changing demands brought on by technical, political, and cultural changes in the environment’. Toowoomba Foundry appears to have a conservative and entrenched workplace culture. It is clear that Foundry management has a good grasp of strategic management, however, this will be to no avail in the long-term if it fails to acknowledge its cultural problems and take into account the need to involve employees in open two-way communication in the earliest stages of safety planning, and provide continuous feedback on the current status of projects.

Employees indicated that many people would not stop production to rectify a safety issue as they were in fear of losing their jobs. To rectify this situation there needs to be a redefinition of priorities and reassurance that putting safety before production will not jeopardise jobs (Fisher 1997). Employees note that when an efficiency rating such as 77 percent is displayed, it actually becomes a disincentive and is demoralising. This is linked to the setting of realistic safety goals. Employees felt that the production targets are too unrealistic to achieve without compromising safety. The goals for safety need to be achievable but challenging (Robotham 1998).

Employees noted some dissatisfaction with the STOP card system maintaining green cards for some employees and white for management and trained employees. There was a perception that not all employees had immediate access to STOP cards and that the cards were only available through supervisors. Safety program initiatives must apply consistently across the whole organisation in order to be effective (Fisher 1997).

Toowoomba Foundry has led their field in the implementation of the DuPont STOP program. However, it is an imported program and deficient in dealing with chemical and manual handling issues. The safety program and audits must be tailored to the organisation in order for the safety program to be a success (Robotham 1998). The Foundry has initiated many other excellent ideas. However, these have not been fully communicated to all employees and thus do not have employee support, commitment or involvement which is crucial to the success of the safety program.

Commitment is inextricably linked with attitude. To facilitate increased commitment and more positive attitudes Toowoomba Foundry’s management must show their commitment to safety. A common belief of managers and employees is that responsibility for safety lies with all levels of the workforce. Commitment from all levels of Toowoomba Foundry underpins the success of the safety program and thus, the long-term strategic goals of the organisation. Management views safety as a priority and say ‘if it’s safety we spend it’, although employees do not see this. Employees want management to set the example so they can see their commitment. The employees want overt leadership in the wearing of safety boots and equipment at all times. Many employees believe that management is more interested in production than safety. Hawkins and Hudson (1998 p. 6) note that ‘... leaders create a climate that encourages commitment, not just compliance. They manage the most important interactive climatic variables: time, place and mood’. Currently, there are contrasting perceptions of the levels of commitment throughout the workplace.

Employees suggested that additional training is needed so that all employees are qualified to fill out the STOP cards. The majority of respondents identified the need for revised and ongoing training in safety. Effective training has a number of benefits including communicating the safety program benefits to all levels of the workforce (LaBar 1996).

It was identified that the safety committee meetings included a section on the safety program project list. Each project's current status is identified, however, this does not appear to be communicated to employees. The contributions of other departments are unknown to the majority of employees, causing them to question their usefulness. The safety program and initiatives need to be communicated. This underpins the commitment to safety. Management must act on and feedback progress of the safety initiatives of employees (Robotham 1998). Employees reported that they did not have knowledge of long-term plans and this decreased their commitment. Employee involvement in long term planning should begin at the earliest possible stage (Larkin & Larkin 1998).

Calculating LTIFR for individual work groups may alienate those groups that tend to have a higher amount of lost time injuries, although it could also fast track the improvement process by focussing attention on problem areas. The outcome of this action could see certain groups within the Foundry closer to a zero LTIFR and concentrate improvement efforts on those areas with a higher rating.

CONCLUSIONS AND RECOMMENDATIONS

The most significant conclusion was the identification of a large contrast in management's perceptions of employees' attitudes to the safety program and the actual attitudes of staff. Management do believe safety is a priority, however, employees believe management is more interested in production than safety. Employees feel management actions do not match their words or intentions. There were contradictory accounts of current practice, indicating a lack of effective communication. There should be standardisation and consistency at every level.

Employees do not receive continuous feedback on the status of the various projects initiated to improve safety. Employees perceive that their ideas are not actioned or followed up. They are resentful when specific requests are not fulfilled without explanation. They feel they are kept out of the 'loop' regarding long-term planning.

These recommendations have been based on the above conclusions:

1. Calculate the LTIFR for individual workgroups within the Foundry so that each group has team goals, and to facilitate team-specific LTIFR feedback.
2. Modify the STOP program to include manual and chemical handling policies and training.
3. Management should ensure that requests are followed through, with outcomes communicated to employees.
4. Facilitate the feedback from the safety committee meetings and ensure all shop floor employees are aware of safety issues.

5. In general, involve employees in change at the earliest possible stage and involve them using two-way, open communication.

LIMITATIONS OF THE STUDY

The limitations of this study are the timeframe for completion and the difficulties associated with the availability of shop-floor employees to participate in focus groups, which restricted data collection. Other limitations include the small sample size, which may be unrepresentative. Limited knowledge of the Foundry's resources and capacity to initiate the recommendations made must be considered.

ISSUES FOR FURTHER REVIEW

This report focuses on the reasons why Toowoomba Foundry's safety program has plateaued. During the course of research, the consulting group discovered underlying problems in internal communication and, with the induction of casual employees, in that they are not trained on the STOP program, which may contribute to any increase in LTIFR. Although these matters are not included in the scope of this report, these issues could be further investigated.

REFERENCES

- Cacioppe, R. 1998, 'Getting Change to Stick', *HRMonthly*, March, pp. 20-22.
- Cox, S. & Cox. T. 1996, *Safety Systems and People*, Butterworth-Heinemann, Cornwall, Great Britain, p. 328.
- Creswell, J.W., 1998, *Qualitative Inquiry Research Design*, Sage Publications, Thousand Oaks, California.
- Cummings, T.G. & Worley, C.G., 1997, *Organization Development and Change*, 6th edn, South Western College Publishing, Cincinnati.
- Eunson, B. 1994, *The Communication Skills Series: Writing and Presenting Reports*, John Wiley & Sons, Milton.
- Fisher, A. 1997, 'Danger Zone', *Fortune*, September, vol. 13, no. 5, pp. 165-167.
- Gustafson, G. & Thrum, A. 1998 'Braving the "Forbidden Zone"', *HRMonthly*, April, p.24.
- Hawkins, L. & Hudson, M. 1998, 'Leaders as negotiators', *HRMonthly*, August, pp. 6-8.
- Kellehear, A. 1993, *The Unobtrusive Researcher: A Guide to Methods*, Allen & Unwin, St Leonards.
- LaBar, G. 1996, *Occupational Hazards*, vol. 58, no. 5. pp. 73-76.
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- Larkin T.J. & Larkin, S. 1998, 'Communicating change in chunks,' *HRMonthly*, May, pp. 14-17.
- Malhotra, N.K. 1996, *Marketing Research: An Applied Orientation*, 2nd edn, Prentice-Hall International Inc, New Jersey.
- Marshall, C. & Rossman, A. 1995, *Designing Qualitative Research*, 2nd edn, Sage Publications, Thousands Oaks, California.
- Peck P. 1998, 'Have a little empathy', *HRMonthly*, July, p. 30.
- Robbins, S. 1994, *Management*, 4th edn, Prentice Hall, Englewood Cliffs, New Jersey.
- Robbins, S.P., Waters-Marsh, T., Cacioppe, R. & Millett, B. 1994, *Organisational Behaviour: Concepts, Controversies and Applications: Australia and New Zealand*, Prentice Hall, Sydney.
- Robotham, G. 1998, 'Making Your Safety Program Fly', *HRMonthly*, September, pp. 22-24.
- Stace, D. & Dunphy, D. 1996, *Beyond The Boundaries*, McGraw-Hill Book Company, Sydney.
- Tichy, N. 1982, 'Managing change strategically: The technical, political and cultural keys', *Organizational Dynamics*, Autumn, in *Organisational Change and Development Selected Readings*, 1998, Distance Education Centre, USQ, Toowoomba, Australia, Reading 2.3.

APPENDIX 1

Interview Questions

We can assure you that anything you say to us is confidential and anonymous.

ATTITUDES TOWARD SAFETY

1. Who do you see as responsible for safety at the Foundry? (is it the responsibility of the company and individual worker?)
2. What are the general attitudes towards safety at the Foundry?
3. Does safety sometimes get in the way of getting the job done?
4. Is safety a priority all of the time or only until you get busy in which other things take priority?
5. Do you encourage your colleagues/workmates to work safely?
6. Do you think of safety when you are working?
7. Do you believe all accidents are preventable?
8. Where / when do accidents usually occur?
9. Do you believe that people who work to procedures will always be safe?

SAFETY PROGRAMME

1. Can you explain the safety program for us?
2. What safety mechanisms presently exist? (e.g. policies, weekly safety meetings)
3. How are they working? Are they successful? (strengths & weaknesses)
4. What improvements do you think could be made to the program?
5. How are you involved in safety at Toowoomba Foundry?
6. After an accident occurs is the company more concerned with apportioning blame than future prevention?
7. How is the reporting of minor injuries and near misses affected by the safety program?
8. Does your manager/supervisor remind you of safe working practices regularly?

ATTITUDES TOWARD THE PROGRAMME

1. Do you ever have a near miss? Was it reported? Why / Why not?
 2. Do you think management is committed to safety?
 3. What do you think management/employees think of the safety program?
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INCENTIVES

1. What rewards do you have to encourage safety work practice?
2. How appealing are these to you?
3. Can you think of anything better?
4. What do you think is the general opinion?

SAFETY AWARENESS/TRAINING

1. Is it important for everyone to have regular safety updates?
2. How is the need for safety communicated?
3. How was the safety program communicated?
4. Is the training received enough?
5. What can be improved?

MISCELLANEOUS

1. Have you had any experience outside in other manufacturing-type jobs outside TF?
2. If yes, how does TF stand compared to others?
3. Do you think everyone is aware of safety requirements?
4. Is signage adequate?

(Adapted from Cox, S. & Cox. T. 1996, *Safety Systems and People*, Butterworth-Heinemann, Cornwall, Great Britain, p. 328)