

EFFECTIVE IMPLEMENTATION OF THE FIRE PROTECTION ASSOCIATION AUSTRALIA CODE OF PRACTICE

An Interactive Qualifying Project Report

submitted to the Faculty

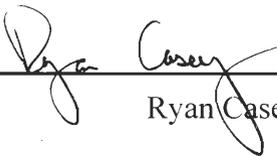
of the

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

by

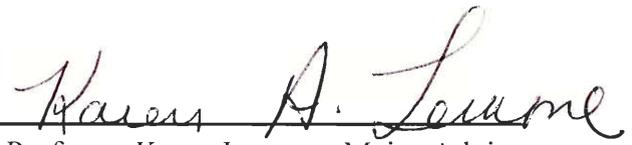

Ryan Casey


Adam Daniels


Todd Sullivan

Date: May 4, 2004

Approved:


Professor Karen Lemone, Major Advisor


Professor Creighton Peet, Co-Advisor

1. Code of Practice
2. Fire Protection Association
3. Implementation

Abstract

The Fire Protection Association Australia (FPA Australia) is a non-profit organisation seeking to provide a means by which clients of the fire protection industry can identify companies dedicated to fire safety and ethical business practice. To accomplish this, FPA Australia instituted in 2001 a Code of Practice outlining standards for their corporate member companies to follow. The goal of this project is to develop a Code auditing system to ensure compliance. This goal is divided into three objectives: increase Code awareness through improving Code training/education, achieve full corporate membership Code implementation through identifying and providing solutions to Code implementation barriers, and ensure Code-compliance through developing an auditing procedure applicable to all corporate membership classifications. Once an auditing system has been established the Code of Practice can achieve its goal of increasing integrity throughout the fire protection industry.

Acknowledgements

We would like to thank Ross Hodge, FPA Australia Executive Director, for allowing us the use of the FPA Australia facilities, and for his support of our project.

We would also like to thank Bob Sutcliffe for helping us relax, Virginia Krumins for offering helpful suggestions and buying us grapes, Ann Harris for her help around the office, Julie Spencer for keeping us supplied with cookies and crackers and Justin Lange for taking us out and showing us the real Australia. We would also like to thank all of the other staff at FPA Australia for making us feel welcome and for all of their support.

We thank the FPA Australia corporate membership for taking time out of their schedules to respond to our survey and meet with us for interviews. We also would like to thank all corporate member clients and professional auditors who were gracious enough to meet with us.

We thank Ed Daniels for the use and support of hosting our online questionnaire. He saved us valuable time.

This project could not have come together without the support and vast amounts of time given to us by our Advisors, Karen Lemone and Creighton Peet. Thank you.

Executive Summary

A code of practice is an established set of standards that many associations have adopted to help improve product and service quality in their respective fields. When properly monitored, these codes of practice help assure consumers of the dedication and integrity of the association, and potentially eliminate the need for the creation of further business standards legislation by the government. The challenge of enforcing code compliance in associations which have an established code of practice is a complex problem, which left unresolved might negatively impact a company's consumer support. Many issues are involved in monitoring code compliance within an association.

Ideally, associations such as the Fire Protection Association of Australia (FPA Australia) would not require an auditing system to check on Code-compliance among its corporate member companies. However, the reality is that corporate members who decide to use the Association's emblem may fail to properly implement and comply with its Code of Practice. When a corporate member company signs on to become a part of the FPA Australia, it is granted the privilege of using the Association's emblem to further its business and gain consumer support by advertising as a Code of Practice-compliant company. Corporate member companies serve as a reflection of the Association; when one company fails to meet the Association's standards, it reflects poorly upon the entire Association. The challenge that exists within the FPA Australia is to implement an effective auditing system to ensure corporate member companies comply with the Code of Practice.

The goal of this project was to propose a practical auditing system to ensure compliance with the FPA Australia Code of Practice. For the purposes of this project, the term “auditing system” was operationalised to include three objectives: increase Code awareness through improving Code training/education, achieve full corporate membership Code implementation through identifying and providing solutions to Code implementation barriers, and ensure Code-compliance through developing an audit procedure applicable to all corporate membership classifications. We combined our evaluation of the current status of the Code with our background research to propose auditing systems to help ensure corporate member compliance with the FPA Australia Code of Practice.

We employed numerous methods to collect feedback on the three objectives. In developing our training/education recommendations, we combined our background research on General Electric (GE) with our results from surveying the FPA Australia corporate membership. To improve Code implementation throughout the corporate membership, we administered pre-test questionnaire interviews, a survey, and client interviews to collect feedback on Code awareness, Code promotion, and barriers to Code implementation. Our auditing procedures were initially modeled on procedures identified in our background research, and fully developed from our corporate member professional auditor interviews.

Our project results indicated insufficient awareness of the FPA Australia Code of Practice throughout the corporate membership. This issue could be addressed, as per our results,

by the use of email and/or memos to inform and collect feedback from the corporate membership on the Code of Practice. Only after this initial awareness is established can an auditing system be successfully utilised.

After initial awareness has been accomplished, training programs can be developed. The best methods to administer Code training programs are: person-based seminars, interactive CD-ROM training modules, and online-seminars. A person-based seminar would allow direct communication with the corporate membership; however, time, location and flexibility issues would need to be accounted for. CD-ROMs and Online-Seminars address demographic concerns because they can easily reach the corporate membership via the internet; however, there are also development costs associated with each method.

To improve implementation among the corporate membership, we proposed solutions to overcome the three most commonly reported barriers: lack of Code education among the corporate membership, lack of Code applicability to corporate membership, and insufficient benefits for Code implementation. Methods to best train/educate the membership were discussed in the previous paragraph. With regard to Code applicability, we propose the creation of an executive board whose purpose is to regularly assess and revise the Code. To overcome the lack of benefits, we propose further research into Code marketing, such as obtaining an agreement with an insurance company to reduce premiums for Code-compliant members.

Our final auditing procedures include both a “quality assurance” and “third-party” type audit. The “quality assurance” audit relies on an accredited FPA Australia auditor performing random workplace inspections of corporate member compliance with government and/or industry regulations. This auditor creates a report listing any Code breaches for the Association and auditee. The corporate member must rectify the problem within an allotted time or face penalties ranging through cessation of membership. The second proposed audit procedure requires all corporate members to employ a third-party inspection business to verify the quality of work performed. This independent verification would translate to Code-compliance for the entire corporate membership.

Table of Contents

<i>Title Page</i>	
<i>Abstract</i>	<i>i</i>
<i>Acknowledgements</i>	<i>ii</i>
<i>Executive Summary</i>	<i>iii</i>
<i>Table of Contents</i>	<i>vii</i>
<i>Table of Figures</i>	<i>ix</i>
<i>Table of Tables</i>	<i>x</i>
<i>Authorship Page</i>	<i>xi</i>
1 Introduction	1
2 Background	4
2.1 Codes of Practice	4
2.1.1 Characteristics of a Code of Practice	4
2.1.2 Benefits of a Code of Practice	6
2.1.3 Purpose of the FPA Australia Code of Practice	9
2.1.4 Content of FPA Australia Code of Practice	10
2.2 Organisations with Codes of Practice	12
2.2.1 National Fire Protection Association (NFPA)	12
2.2.2 Underwriting Laboratories Inc. (UL)	13
2.2.3 American National Standards Institute (ANSI)	16
2.2.4 General Electric	18
2.3 Summary	19
3 Methodology	20
3.1 Training/Education	20
3.1.1 Questionnaire (Training/Education)	20
3.2 Implementation of the Code of Practice	22
3.2.1 Awareness and Promotion	22
3.2.2 Barriers to Implementation	23
3.3 Auditing Procedure	25
3.3.1 Member Interviews	25
3.3.2 Professional Auditors Interviews	26
4 Results and Analysis	27
4.1 Training/Education	28
4.1.1 Means for Communication	28
4.1.2 Analysis of Training/Education	32
4.2 Implementation	34
4.2.1 Code of Practice Awareness and Promotion	34
4.2.2 Code Implementation Barriers	37
4.2.3 Analysis of Implementation	40
4.3 Auditing the Code of Practice	41
4.3.1 Interviews (FPA Australia Corporate Membership)	41
4.3.2 Professional Auditor Interviews	45

4.3.3 Analysis of Member and Professional Auditor Interviews	47
5 Conclusions	49
5.1 Training/Education	50
5.2 Implementation	51
5.3 Auditing	52
6 Recommendations	53
6.1 Improve Awareness	55
6.2 Train/Educate Corporate Membership	56
6.3 Implementation	59
6.4 Auditing	61
6.5 Further Work	65
Bibliography	67
Appendix A: Mission and Background of FPAA	70
Appendix B: Background Interviews	72
Section Barnett	72
Section Hodge	74
Section Beller	75
Section Backstrom	76
Appendix C - Pre-Test Interviews	77
Interview of Corporate Member	77
Interview of Corporate Member	78
Interview of Corporate Gold Member	79
Appendix D – Questionnaire Development and Distribution	81
Questionnaire Development	81
Distribution of Questionnaire	82
Appendix E – Questionnaire Content	84
Appendix F – Questionnaire Results / Distribution of Corporate Members	88
Questionnaire Results	88
Distribution of Corporate Membership	94
Appendix G – Response Analysis (From Questionnaire)	95
Appendix H – Corporate Membership Interviews	98
Corporate Membership Interview Agenda	98
Corporate Membership Interview Summaries	100
Appendix I - Corporate Membership Client Interviews	114
Corporate Membership Client Interview Summaries	114
Appendix J – Professional Auditors Interview	122
Professional Auditors Interview Agenda	122
Professional Auditors Interview Summaries	123
Appendix K: Australian Consumer and Competition Commission	130
Appendix L – Technical Auditing Procedure	134
Appendix M – Interview with Konrad Chmielewski	136

Table of Figures

<i>Figure 1: Training/Education Means</i>	29
<i>Figure 2: Average response ranking the paper-based means</i>	30
<i>Figure 3: Average response ranking the person-based tools</i>	31
<i>Figure 4: Average response ranking each internet-based means</i>	31
<i>Figure 5: Average rank of all means used.</i>	32
<i>Figure 6: Means used to educate/train employees on the Code</i>	35
<i>Figure 7: Auditing System Functional Block Diagram</i>	54
<i>Figure 8: Percentage of Corporate Membership Across Australia</i>	94
<i>Figure 9: Corporate Membership classification breakdown</i>	95
<i>Figure 10: Response according to membership classification.</i>	96
<i>Figure 11: Method of response for survey.</i>	97
<i>Figure 12: ACCC Conflict Resolution Steps</i>	133

Table of Tables

<i>Table 1: Tabulated Response from all questionnaire respondents.</i>	93
<i>Table 2: Location of FPA Australia Corporate Membership</i>	94
<i>Table 3: Methods of data distribution and collection</i>	95

Authorship Page

<i>Abstract</i>	<i>All</i>
<i>Executive Summary</i>	<i>All</i>
<i>1.0 Introduction</i>	<i>All</i>
<i>2.0 Background</i>	
2.1 Codes of Practice	All
2.2 Organizations with Codes of Practice	All
2.3 Summary	All
<i>3.0 Methodology</i>	
3.1 Training/Education	All
3.2 Implementation	All
3.3 Auditing	All
<i>4.0 Results</i>	
4.1 Training/Education	All
4.2 Implementation	All
4.3 Auditing	All
<i>5.0 Conclusions</i>	
5.1 Training/Education	All
5.2 Implementation	All
5.3 Auditing	All
<i>6.0 Recommendations</i>	
6.1 Improve Awareness	All
6.2 Train/Educate Corporate Membership	All
6.3 Implementation	All
6.4 Auditing	All
6.5 Future Work	All

1 Introduction

A code of practice is an established set of standards that many associations have adopted to help improve product and service quality in their respective fields. When properly monitored, these codes of practice help assure consumers of the dedication and integrity of the association, and potentially eliminate the need for the creation of further business standards legislation by the government. Enforcing code compliance in associations which have an established code of practice is a complex problem, which left unresolved might negatively impact a company's consumer support. Many issues are involved in ensuring code-compliance within an association.

Ideally, associations such as the Fire Protection Association of Australia (FPA Australia) would not require an auditing system to verify code-compliance among its member companies. However, the reality is that corporate members who decide to use the Association's emblem may fail to properly implement and comply with its Code of Practice. When a corporate member company signs on to become a part of the FPA Australia, it is granted the privilege of using the Association's emblem to further its business and gain consumer support by advertising itself as a Code of Practice-compliant company. Corporate member companies serve as a reflection of the association; when one company fails to meet the Association's standards, it reflects poorly upon the entire Association. The challenge that exists within the FPA Australia is to implement an effective auditing system to monitor corporate member companies' compliance with the Code of Practice.

Many organisations and businesses have developed auditing procedures to address code-compliance issues. Examples of such organisations and businesses are Underwriters Laboratories (UL), General Electric (GE) and the American National Standards Institute (ANSI). The core of UL's and ANSI's auditing procedures is to send out trained auditors to check up on member companies. These representatives create a report of any compliance issues uncovered along with recommendations on how to solve them. Consequences of non-compliance for a company can include cessation of membership. Another method that helps facilitate code-compliance used by GE, UL, and ANSI involves training seminars that help update and inform members on relevant codes and standards. These organisations serve as important models for creating an effective Code-compliance auditing system for the FPA Australia.

The FPA Australia Code of Practice seeks to improve the fire protection industry through establishing an auditing procedure to ensure quality of products and services provided by corporate member companies. Although the Code contains provisions for a Code auditing procedure, there is currently no such system being implemented. Currently, there is no way to determine whether corporate member companies are Code of Practice compliant, or simply using the Code and associated compliance emblems to promote their businesses. The FPA Australia would greatly benefit from an auditing system similar to what other organisations and companies have already established to help maintain its business integrity.

The goal of this project was to propose one or more practical auditing systems to ensure compliance with the FPA Australia Code of Practice. In order to develop an auditing system, we identified three objectives: increase Code awareness through improving Code training/education, achieve full corporate membership Code implementation through identifying and providing solutions to Code implementation barriers, and ensure Code-compliance through developing an auditing procedure applicable to all corporate membership classifications. We combined our evaluation of the current implementation status of the Code with our background research to propose auditing systems to help ensure corporate member compliance with the FPA Australia Code of Practice.

2 Background

To achieve our project goal of proposing a code of practice auditing system, we performed background research prior to our arrival in Australia. The areas related to accomplishing our project goal include developing a general definition of codes of practice, applying it to the FPA Australia Code of Practice, and researching other organisations with an established code of practice auditing system.

2.1 Codes of Practice

Understanding a general code of practice is the first step in developing a Code auditing system for the FPA Australia. In this section we will define what a code of practice is, outline characteristics that are typical of codes, and identify the benefits of having a code of practice.

2.1.1 Characteristics of a Code of Practice

“Voluntary codes of practice are sets of non-legislatively required commitments that are agreed upon by one or more companies within an organisation and are designed to influence and shape the behaviours of all signatories” (Consumer Connection, 2000).

Codes contain three core characteristics: guideline development, a monitoring mechanism, and means for regular evaluation/revision. Guideline development is performed by experts in the associated field to ensure code relevance and credibility.

Monitoring mechanisms help determine if the various signatories are complying with the

code, and this often includes consequences for non-compliance. To provide flexibility, many codes also include the means for a revision process (Consumer Connection, 2000).

The foundation of all codes is its guidelines, which are written by professionals in the related field (ACCC, 1999). An example of this characteristic was provided in our personal communication with Doug Beller, a man who has worked extensively with the National Fire Protection Association (NFPA). Mr. Beller informed us that in the case of the NFPA, a world-renowned organization in the field of fire protection, standards and codes are collectively created by experts from the fire protection industry (personal communication, February 13, 2004; see Appendix B – Section Beller). These experts are the best choice for guideline development because of their firsthand experience in dealing with technical and operational difficulties in fire protection. Critical in maintaining the association's image, their credentials lend the guidelines applicability, validity, and credibility.

A monitoring mechanism is especially important for codes that are designed to address issues involved in safety industries (personal communication, February 13, 2004; see Appendix B – Section Beller). For this reason, implementing these types of codes requires extensive membership education and third party auditing (FPA Australia, 2001). Without proper education on behalf of the organisation, its members are unaware of the code and thus cannot effectively implement it.

For an organisation that has created guidelines and a monitoring mechanism for its code of practice, an important tenet of this monitoring mechanism is the consequence of non-

compliance. Consequences of non-compliance vary depending on the size, resources, and involvement of the organisation. However, these consequences typically follow an escalation pattern to include warnings, revocation of membership, and may go as far as informing the appropriate authorities, depending on the severity and nature of the offence. For most companies, it is recommended by the Canadian Office of Consumer Affairs that the organisation establish a decision making body solely responsible to oversee implementation, resolve disputes, and declare penalties for non-compliance. This helps ensure that compliance is uniform within the company and helps prove the organization's integrity within its industry (Consumer Connection, 2000).

The third core part of a code of practice is a mechanism for regular evaluation/revision to keep up with contemporary industry standards. This evaluation and revision process provides flexibility to the code and allows it to maintain a competitive edge. The three most common forms for revision are analysing suggestion box responses (electronic or physical), forming a committee charged with revising the code periodically, or submitting the code to pertinent entities for review (ACCC, 2000). Within industries like fire protection, these revisions are a crucial step in developing the most current code of practice. Constantly evolving technologies, as well as the need to protect the consumer's safety, necessitate a regular revision process.

2.1.2 Benefits of a Code of Practice

According to an article on the American National Standards Institute (ANSI) web page, "by using standardisation to streamline processes and trim costs, businesses can secure a competitive advantage - and remain competitive in the face of national and global market

changes” (ANSI, 2001). Through a demonstrable commitment to a stringent code, the company and its association are able to market their services and products as conforming to the highest possible standards. The educated consumer is more likely to do business with these companies than with companies that do not comply with any specific standards, because the quality of work from a code-compliant company is likely to be better. As a direct result of this commitment, the company may experience increased revenue through its membership in the standards-setting association.

Another benefit of a demonstrable adherence to a code of practice is increased legal protection from consumer claims. In the event that a consumer who uses a service or product of a member company deems the company to be at fault for some reason, the member company may refer to its code of practice and associated auditing mechanism. Since an auditing system provides regular feedback to the company and association to which it belongs about the company’s services and products, the company being accused of faulty goods can use documentation from previous audits to its advantage.

Demonstration of the company’s compliance correlates to compliance with all relevant government and industry standards, bolstering the company’s position in a consumer complaint situation (Fiorelli, 1998).

2.2 FPA Australia Code of Practice

The FPA Australia Code of Practice is voluntary in that only those companies that choose to use the Association's Code-compliant emblem are required to sign and adhere to the code. Thus, corporate members of all four FPA Australia corporate membership levels have the option to sign a declaration of compliance with the Code of Practice. The corporate membership levels are Corporate Member, Corporate Silver, Corporate Gold and Corporate Platinum; these are ranked in ascending order in relation to company size and gross annual income. The Code of Practice was not developed by the Australian government; rather, it was created with support from FPA Australia corporate members, various fire authorities in each State and Territory, and groups from the building, construction, and property management industries (FPAA, 2000).

The Code was reviewed and revised by various groups to ensure its quality, feasibility, and thoroughness. In October of 1995, the FPIAA (Fire Protection Industry Association of Australia) developed the Code of Practice for the state of Victoria. The Code at that time was not made a public document and was not revisited until after the merger in 1998 of the FPIAA with the AFPA (Australia Fire Protection Association) to form the FPA Australia. It was circulated within technical and state committee groups, the FPA Australia Board of Directors, and the National Technical Advisory Committee (NTAC) throughout 1999 and was finalised in April of 2000. The Board of Directors endorsed the Code in May and the signing of compliance with it was finally made a qualification of membership 1 July 2000 (FPAA, 2000).

2.1.3 Purpose of the FPA Australia Code of Practice

The purpose of the FPA Australia Code is to uphold the FPA Australia's mission to society through the promotion of fire safety. The Code also aims to increase inter-company cooperation and boost industry integrity. The standards set within the Code thus help to eliminate malpractice and allow clients to identify companies that are fully committed to safety and high quality service. Within the Code, the responsibilities of the FPA Australia corporate member companies are discussed in addition to technical specifications (Fire Protection Association Australia, 2001).

The FPA Australia Code of Practice contains stipulations to enhance innovation and integrity through communication. Corporate members must preserve open communication and cooperation with other corporate member companies, clients, governments, and fire brigades/authorities. For example, the government may encourage certain aspects of the Code in an effort to boost self-regulation and reduce the need for passing further business legislation. Also, a company that implements its own effective Code auditing system can easily communicate its success to other corporate members. This open communication allows a constant improvement of standards while increasing competitiveness and overall integrity within the fire protection field.

FPA Australia corporate member companies can use the Code as a guide to ensure that they are in compliance with other industry and government regulations. Included as appendices in the Code of Practice are the following regulations: *Fire Protection Association Australia-Memorandum and Articles*, the Quality System Standards:

AS/NZS ISO 9001, 9002, 9003, the *AS4120: Code for Tendering*, the Australian Standards for Installation and Maintenance of equipment, product design and performance standards, *FPS4-Agreement for the Inspection and Testing of Fire Protection Systems*, along with requirements from manufacturers, insurers, and clients. The government requires that companies follow the State and Territory Government Essential Services Regulations, the Trade Practices and Consumer Affairs legislation, and Building Code of Australia (FPA Australia, June 2000). Though the government standards are mandatory, they are usually less strict than their industry counterparts.

2.1.4 Content of FPA Australia Code of Practice

The content of the Code follows closely the working code of practice definition previously developed. Within the Code is an established set of guidelines, mechanisms for enforcing compliance, and provisions for revision. There are also sections dedicated to addressing specific concerns to avoid money tendering, as well as a brief description of ethical considerations involved in company actions (Fire Protection Association Australia, 2001).

Technical guidelines can be found within the Code of Practice; however, for the purpose of this project a full understanding of the technical aspects of the document was unnecessary. The guidelines were not reviewed or evaluated in this project; however, other sections dedicated to enforcing compliance and promoting maintenance of the Code of Practice were valuable.

The compliance enforcement mechanism is located in section 10.4 of the Code. This section describes the manner in which a complaint against a FPA Australia corporate member can be made. The section also describes the various punishments for breach of compliance in the event of an investigation by the FPA Australia. Punishments range from an initial warning, to cessation of membership by the FPA Australia Board of Directors, to notification of the appropriate regulatory authority (Fire Protection Association Australia, 2001).

The Code also contains a stipulation that makes it open to suggestion from the corporate membership from November 1 to December 31 of every year, with the appropriate revisions appearing in the republished Code by the following March 1. However, this review process is described as being “determined by the FPA Australia Board” without further detail (Fire Protection Association Australia, 2001). Ross Hodge has explained that this system is unused at the moment pending the development of an effective auditing system.

2.2 Organisations with Codes of Practice

After developing a definition of a code of practice and defining the specifics of the FPA Australia Code of Practice, we researched organisations with a code of practice to understand the methods they use to enforce compliance. The organisations researched consist of companies or associations that operate in a similar manner to the FPA Australia. The methods and techniques that they use to train and audit their member companies can serve as a useful resource for the development of an auditing system for the FPA Australia.

2.2.1 National Fire Protection Association (NFPA)

The National Fire Protection Association (NFPA) is an international non-profit organisation with operations that encompass many aspects of fire protection. The NFPA provides accreditation to compliant member fire protection companies. Each company, however, utilises a different set of standards since there are a broad range of facets within the fire protection industry. The NFPA addresses code-compliance using two methods: the first is in the development of its codes, and the second is by delegating auditing responsibility to companies and organisations that implement its codes (National Fire Protection Association, 2004).

To ensure code-compliance, the NFPA has designed a system for the development of its codes and standards. The codes are created by its two hundred and thirty technology and standards committees. These committees consist of volunteers with the appropriate educational backgrounds. Once the committee has written a new code of practice or standard, it is then submitted to the Board of Standards. The Board reviews the codes

and revises them for release to the members. The members then vote on whether the proposed code will be accepted as official. This procedure helps to ensure their clients agree with and thus adhere to the codes (National Fire Protection Association, 2004).

The second method used by the NFPA to help ensure code-compliance is the delegation of code auditing responsibilities to businesses such as the Fire Service Organization. This type of independent audit is then submitted to the NFPA where the Board reviews it. If companies are found to be in breach of the code, they have the opportunity to rectify the problem(s) before being subject to another audit (National Fire Protection Association, 2004).

2.2.2 Underwriting Laboratories Inc. (UL)

Another organization that has a longstanding history in the development of auditing procedures and code compliance is Underwriting Laboratories Inc. (UL). UL tests a wide variety of commercial and industrial products. To cope with this diversity, they have established different divisions; each specialized in a specific area to assure universal product safety and code-compliance. The Fire Protection Industry division of UL has its own set of regulations. To successfully implement these regulations, they have taken a similar approach to the NFPA in that the Fire Protection Industry division utilises procedures to both train and then audit their member companies (Underwriters Laboratories Inc., 2004B).

UL offers training programs to make sure member companies are aware of the latest industry and/or government standards and regulations. A specific example of their

educational programs is discussed in an article entitled *UL offers ISO and risk management training on medical device manufacturers* (Underwriters Laboratories Inc., 2004C). This article describes an educational workshop designed to give manufacturers insight into ISO standard number 13485:2003, which is a more recent set of standards for some manufacturers' products. The workshop was open to anyone, from medical device manufacturers to general and business unit managers, engineering consultants, and any who would find the course useful in understanding the new regulations. The manufacturer, a UL member, co-sponsored this seminar, which helped to alleviate some of the costs for UL. Such sharing of costs has allowed UL to offer similar seminars in other fields. Important for achieving the highest attendance possible, the workshop was only one day long to accommodate most professionals' busy schedules (Underwriters Laboratories Inc., 2004C).

The major advantage of a one-day training program, such as the one used by UL, is that it is performed in an interactive classroom setting. If at any time an individual does not understand a part of the regulations, he/she can simply ask the professional who is administering the seminar for assistance, which is not necessarily possible with online programs. The disadvantage to this type of training as opposed to an online program is that considerations regarding the overall accessibility (cost, travel distance, etc) still apply.

Once the UL has ensured that its members have an adequate opportunity to understand its standards and regulations, it is ready to perform audits. Part of these audits includes

field-testing the auditee's products in its typical working environment. An example of this testing is a manual inspection of a facility that just had a new fire door installed (Underwriters Laboratories Inc, 2004B). This not only helps to make sure the door works properly but also helps to ensure that the company installed the door to UL standards.

Testing products is just one part of the auditing process and is not enough to make sure that the approved companies are completely following the regulations set forth by UL. The UL addresses this shortcoming by employing auditors from various backgrounds to help compensate for the wide range of products approved. Each auditor is highly trained by UL to help ensure professionalism during the auditing process (Underwriters Laboratories Inc., 2004A).

An interview with Bob Backstrom, a Fire Protection Engineer for UL, provided a detailed description of the auditing process used by UL (personal communication, February 16th 2004; see Appendix B – Section Backstrom). UL employs five hundred field inspectors around the United States. Each of these inspectors conducts unannounced inspections of various companies. The companies are then required to remedy any problems discovered or risk losing UL's accreditation. If a consumer has a complaint with a company accredited by UL, the consumer can file a complaint online at UL's website. Field inspectors will then check into the complaint. However, since UL accredited companies have no legal obligation to follow the voluntary codes or standards, the only consequence they can suffer is revocation of the UL accreditation (Underwriters Laboratories Inc., 2004A).

2.2.3 American National Standards Institute (ANSI)

ANSI is a non-profit organisation dedicated to accrediting industry standards and auditing those standards within organisations. The specific services provided by ANSI encompass both the training process behind member accreditation, as well as auditing member compliance (Moskowitz, 2003).

Similar to UL and the NFPA, ANSI utilises an education program to train its members on relevant codes and standards for long-term accreditation. ANSI offers a wide range of such programs to help train its membership and to improve the implementation of its standards in member companies. Programs cover topics such as following a set of standards, tips on successfully implementing a set of standards, and how to maximize the benefits received for following a set of standards (ANSI, 2004).

The primary benefit of ANSI educational programs compared NFPA's and UL's programs is that members learn the importance of industry standards and how to use them as marketing tools. This may cause increased consumer awareness and provides a financial advantage to the ANSI membership. A variety of methods are used to deliver this information. The classroom setting allows easy participation and clarification of problems. Also, ANSI educational programs allow for on-site courses or seminars as well as online courses, which may help many smaller companies save time and money while training a comparable number of their employees. A shortcoming to the ANSI approach is the cost of sending an employee to a course/seminar, or having an ANSI

representative come to the company. The cost may hinder some financially challenged companies from being able to attend a course.

ANSI's auditing program was developed to increase the integrity of the voluntary standards system and promote the recognition of ANSI. By making sure that ANSI's accredited companies are following their standards and procedures, both of these goals can be accomplished. To ensure their auditing system is fair and effective, the ANSI has developed with a standardized procedure (Moskowitz, 2003).

ANSI uses two methods to perform audits. The first method ANSI uses is an audit team. The members chosen for the team are carefully chosen to help prevent bias in the audit. If there is an indication that there is or may be bias in the audit, the Executive Director can remove an auditor from the team at any time. Next, they set up a formal meeting with the company to be audited. The team then travels to the member company and performs the audit using a standardized questionnaire (Moskowitz, 2003).

For smaller companies, the same questionnaire needs to be completed, though ANSI uses an auditee mail-in form, rather than an independent audit team. The completed form is then reviewed by the ANSI Executive Standards Council (Moskowitz, 2003).

Post-audit ANSI review procedures include a documented response with the member company. This report includes a summary of the audit team's findings and any problems or conflicts they discovered. After receiving this written report, the member company has three business days to reply with a proposal to rectify any problems or conflicts

described in the report. Once all of this has been completed, the ANSI Executive Standards Council reviews the audit report and corresponding auditee response. The council will either close the audit or recommend further review (Moskowitz, 2003).

2.2.4 General Electric

General Electric (GE) is a multi-billion dollar international manufacturer that develops and manufactures a wide range of products. To ensure the quality of its products, GE follows many codes and standards, including those of UL and ANSI. To stay accredited by these organizations, GE must make sure that all of the codes and standards are followed. To achieve this goal, GE ensures that its employees understand the codes through training programs (General Electric, 2004A).

GE holds seminars and workshops to keep employees informed of the current regulations and standards of its products. Most of the training approaches are similar in nature to the procedures used by UL and other organisations to train employees; however, there exists on the GE website a special section where interested parties can sign up for “E seminars”. These “E seminars” differ from other training programs in that they are completed online. “E seminar” development may not be time and/or money efficient for smaller companies due to technological constraints, but for larger companies or organizations, such as GE, “E seminars” can be a viable solution. However, except for the issue of developing the E-seminars this approach is equally applicable to small and large companies as a method to train its employees quickly and efficiently.

2.3 Summary

For a code of practice to be successfully implemented and audited, it has to be sufficiently understood. Currently, the FPA Australia does not offer any type of training program on its Code of Practice. The organizations discussed above offer different possible solutions to this problem. The most effective method for reaching a diverse and scattered membership may be online courses or seminars; however, an educator-administered seminar may be feasible for certain segments of the FPA Australia corporate membership. Only after training and education on the Code of Practice has been completed can the challenge of auditing the Code be addressed.

3 Methodology

The goal of this project was to develop and propose an auditing system to educate and monitor FPA Australia corporate member companies on the FPA Australia Code of Practice. As part of our auditing system, we identified three objectives: increase Code awareness through improving Code training/education, achieve full corporate membership Code implementation through identifying and providing solutions to Code implementation barriers, and ensure Code-compliance through developing an auditing procedure applicable to all corporate membership classifications.

3.1 Training/Education

The purpose of determining the current training/education methods that companies use to educate their employees on policies, codes, and standards was to incorporate the most widely used methods into our proposed training programs on the FPA Australia Code of Practice. To accomplish this objective, a survey was developed and administered to all corporate members with an email address.

Although the method of questionnaire distribution and collection did not specifically address a project goal, the results from this method were used to help develop one of our proposed educational strategies (Conclusions; Education Section). A record of this distribution and collection process can be found in Appendix D.

3.1.1 Questionnaire (Training/Education)

We wanted to identify the general training/education media already in use among the corporate membership through our survey. Respondents were first asked if they had a

department or individual within the company that trains or educates employees on policies or standards. This was followed by an open-ended response question, which allowed the respondent to briefly explain how this department or individual operates. A list of commonly used training media (on policies, codes, standards) was provided. Respondents were asked to identify which media their company currently uses. These media choices included person-based, paper-based, and internet-based media, with an open-response “other media” section. After establishing which media are used within the company, the respondent was provided a Likert scale to rank each medium in terms of its effectiveness. Each medium was ranked against each other within their respective category (person-, paper-, and internet-based) and the categories ranked in comparison to each other.

3.2 Implementation of the Code of Practice

The second objective of our auditing system was to ascertain the status of Code implementation within the corporate membership. We sought to determine the degree of Code awareness and promotion within the corporate membership and to identify barriers to implementation of the Code. The results from this information developed solutions to overcome these barriers. The two methods of collecting information on Code implementation were surveying the corporate membership and interviewing corporate member clients.

3.2.1 Awareness and Promotion

The survey and client interview methods assessed Code of Practice awareness and promotion. The questionnaire determined Code awareness among the corporate membership. Both the questionnaire and client interviews determined Code promotion by the corporate membership within corporate member companies and fire protection clients.

A series of Yes/No questions, that began general and became progressively more specific to probe the extent the respondent's knowledge, established corporate member awareness of the Code. First, respondents were asked if they were aware of Code-compliant logos. This was followed up by a question asking if they were aware of the Code-compliance information pamphlets, as well as specific revision provisions written in the Code.

The next section of the questionnaire established the degree of Code promotion by corporate members among their employees and clients. Respondents were asked a series of Yes/No questions related to the distribution of Code pamphlets/materials, current Code education status, and whether alternative methods have been developed to educate employees. Following the alternative methods of education question, we provided an open-ended response question to ask companies to describe these methods.

The corporate member client interviews supplemented the questionnaire and provided us feedback on the success corporate members had experienced with promoting the Code outside the corporate membership. To help understand the level of Code promotion, we asked the clients questions on whether they bias their company towards FPA Australia Code-Compliant companies, and the reasons for such bias. If they were unaware of the Code and did not bias their business towards Code-compliant companies, we sought to identify some effective marketing strategies that could make them more aware of the Code of Practice. We informed the interviewee of tentative plans to promote the Code through magazine advertisements, and asked for feedback on other marketing ideas.

3.2.2 Barriers to Implementation

To assess Code of Practice barriers, pre-test interviews, a survey, and member interviews were used. The effectiveness of the auditing systems was increased through identifying and addressing the most common barriers to Code implementation encountered by the corporate membership,

The pre-test interviews were initially intended to develop our questionnaire; however we were also provided with valuable feedback on barriers to implementation. Corporate member interviewees volunteered without prompting that they were unaware of the Code. After indicating this low level of awareness, the interviewees were asked to describe the barriers responsible for their lack of awareness and corresponding implementation. Follow-up questions were asked to gather feedback on interviewee-proposed methods to overcome those barriers.

The primary form of feedback on the barriers to implementation came from the questionnaire. Companies were asked if there were existing barriers to implementation, followed by an open-ended response question asking them to briefly describe them. Two implementation barrier topics targeted by our questionnaire were the applicability of the Code and the benefit companies received from being Code-compliant. In determining the applicability of the Code and the amount of benefit received, respondents rated these topics according to a Likert scale [1 (“not at all”) to 5 (“a great deal”)].

The primary focus of our member interviews was to develop our auditing procedures; however, we included one question that addressed another barrier to implementation. This barrier, a lack of Code education among the corporate membership, was voiced enough to merit its inclusion in our interviews. Thus, we asked corporate members if they would be willing to overcome the barrier of insufficient Code education by participating in a half-day or less training seminar.

3.3 Auditing Procedure

The third focus of our auditing system development was to create a practical Code auditing procedure. Information gathered from background research on similar organizations allowed us to create preliminary auditing procedures. From there, we gathered feedback on these proposed procedures with corporate members and professional auditors. Development of practical auditing procedures served as the enforcement mechanism for our auditing systems.

3.3.1 Member Interviews

Our primary method of gathering feedback on our initial auditing procedure was through corporate member interviews. In choosing corporate members for phone interviews, we specifically targeted those companies that were not involved in the survey sample; however, after attempting to contact all such members we included randomly selected members throughout all the corporate levels. Gathering feedback from all four classifications of corporate membership on our procedure helped ensure the audit procedure's applicability. A copy of the interview agenda can be found in Appendix H.

The interview format was broken into two stages: determining the method used to ensure compliance with regulations in the corporate member's field and getting feedback on our proposed auditing procedure. The corporate member interviews provided some opinions of the corporate membership on the strong and weak points of our proposed procedure.

3.3.2 Professional Auditors Interviews

We conducted interviews with four professional auditors. As with the corporate member interviews, the purpose of these interviews was to gather information on auditing procedures already in use in industry and collect feedback on our proposed auditing procedures.

Gathering information from these professionals contributed to the creation of practical and credible auditing systems. Audit professionals from the paint and fire protection fields were interviewed, in addition to professional auditors from code-compliance companies. Three out of the four interviews were conducted face-to-face, while the fourth was performed over the phone. All four interviews followed an agenda to maintain the focus of the conversation (Appendix J).

4 Results and Analysis

The goal of our project was to develop and propose a system to audit corporate FPA Australia member companies on the FPA Australia Code of Practice. This primary goal, as described in our Methodology, was broken into three distinct objectives, each addressing a different aspect of our auditing system. The three objectives were to propose methods to train/educate the corporate membership, establish the current status of Code implementation including awareness, promotion, and Code-compliance, and propose auditing procedures to ensure Code-compliance.

The results below are organized according to the three project objectives. Within each project objective, we organised our results (Appendix F) according to the respondent's corporate membership classification; this organisation of results helped ensure the applicability of our auditing system to the entire corporate membership. The results listed below, however, represent the weighted average of all levels of the corporate membership for purposes of brevity. However, we address in our analysis any significant deviations exhibited by a corporate membership class. For information on our questionnaire collection process and response rate, please refer to Appendix G.

4.1 Training/Education

This project objective established the means of communication currently being used in companies to keep employees trained and educated on new policies, regulations, and fire protection issues. The results from this section illustrate the most common and effective training/education means that have been adapted in our final auditing system, seen in our Conclusions (Training/Education Section).

4.1.1 Means for Communication

Establishing the means for code related communication in use among the corporate membership can help illustrate the most effective tools for training/education. If an inefficient mean is proposed for training/educational strategies in our audit system, the majority of companies may not be properly trained on the Code. The questionnaire was used to establish existing forms of training/education among the corporate membership, means companies currently use, and the means relative effectiveness (Appendix E).

As seen in our results data (Appendix G), the majority of respondents (66.7%) indicated that they have an existing department or individual that trains/educates on policies, regulations, or codes of practice the company's employees. A follow-up question asked the respondent to indicate the means used to accomplish this training/education. The only means significantly used more than others were person-based memos and internet-based email.

Figure 1 illustrates the usage rate of various means among the corporate membership. Aside from memos and email, most of the provided means ranked approximately 30% (+/- 10%), except for online newsletters and online seminars, which were both used by approximately less than 10% of the corporate membership.

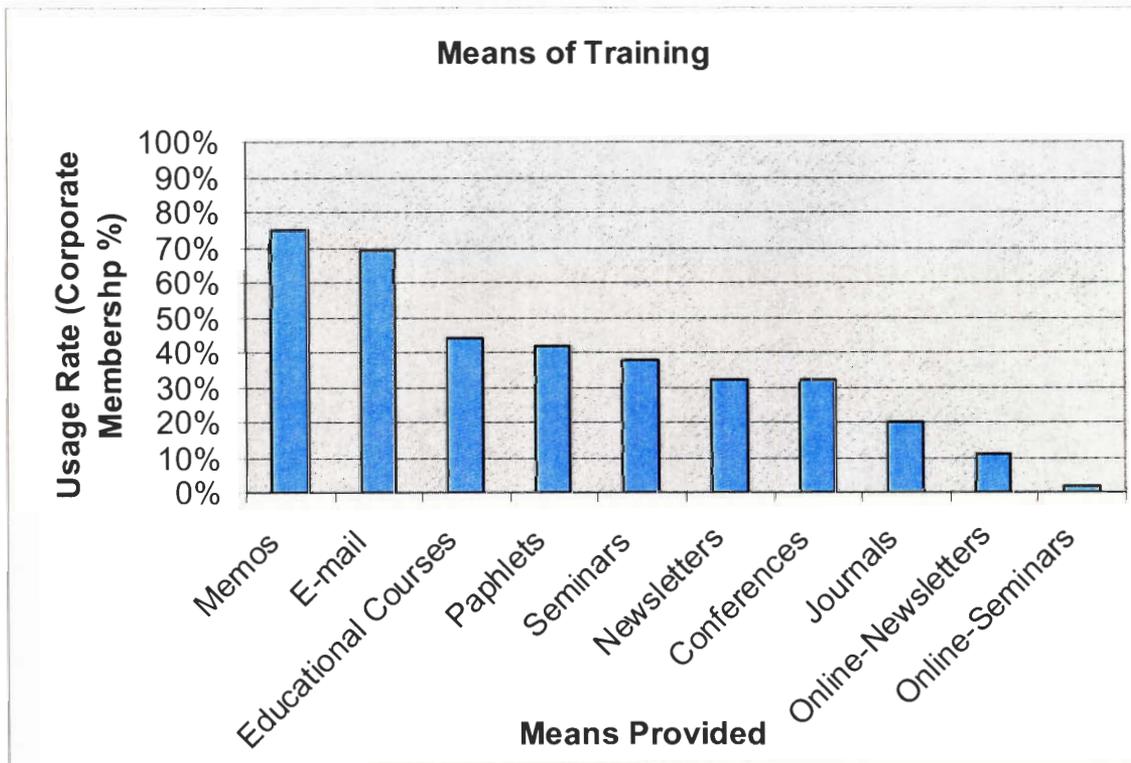


Figure 1: Training/Education Means. Memos (75%) and Email (67%) were used by the highest percentage of the corporate membership, while online seminars (2%) were used least.

In addition to identifying the currently used education and communication tools, the survey also sought to evaluate their effectiveness. The tools were first compared against tools of the same type. Companies were asked: “Of the Paper-based methods, please place them in order from 1-4 based on which forms of information dissemination work best for your company”

(1 for “least effective”, and 4 for “most effective”). The numbers were calculated by averaging the responses for each tool (Figure 2).

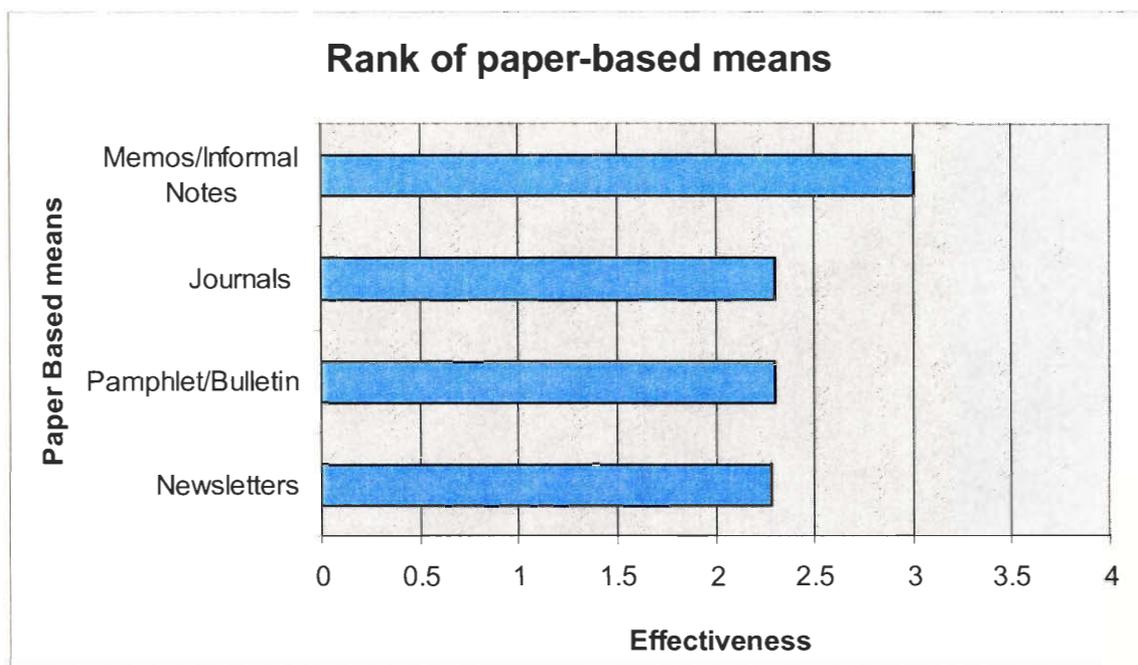


Figure 2: Average response ranking the paper-based means. Memos/Informal Notes received the highest rank of 3.0.

When asked the question: “Of the Person-based methods please place them in order from 1-3 based on which forms of information dissemination work best for your company. (1 for least effective, and 3 for most effective)” the following averages were calculated from the responses (Figure 3).

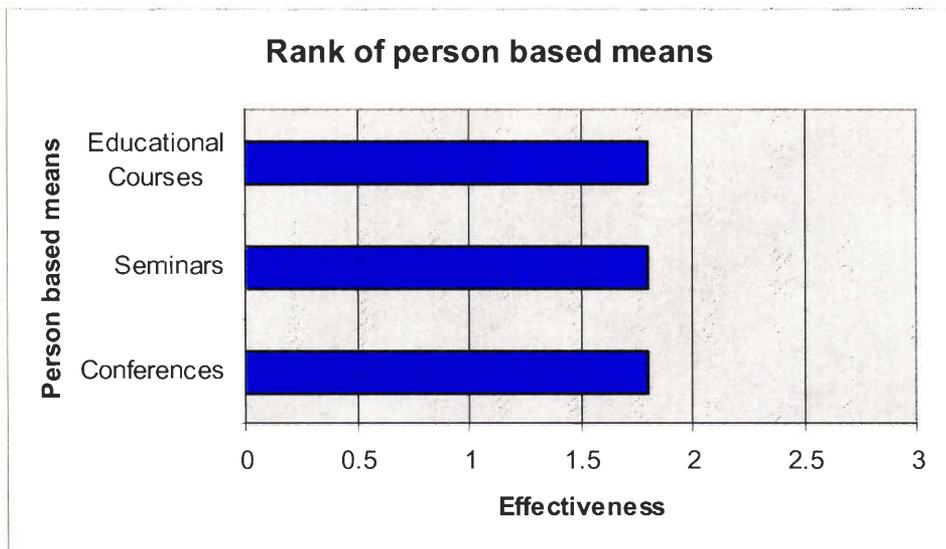


Figure 3: Average response ranking the person-based tools. Each averaged exactly 1.8

Figure 4 illustrates the responses to the question: “Of the Internet-based methods, please place them in order from 1-4 based on which forms of information dissemination work best for your company. (1 for least effective, and 4 for most effective)”. The responses in the below graph were calculated by averaging the responses (out of a possible 4).

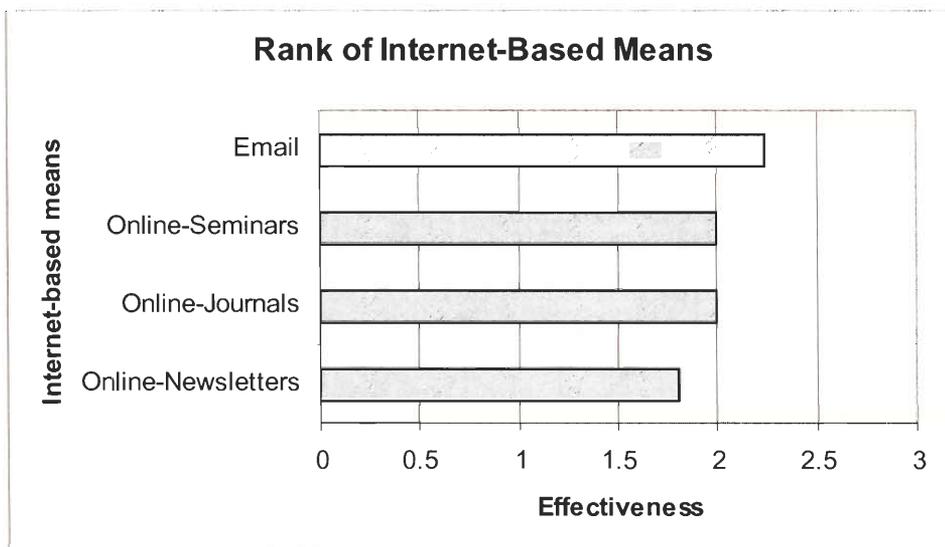


Figure 4: Calculated average response ranking each internet-based means. Email received the highest rank of 2.36.

The last question of the section asked companies to rank each of the person-based, paper-based, and internet-based means relative to each other. Figure 5 illustrates the average calculated responses. Each method was ranked within .2 of each other.

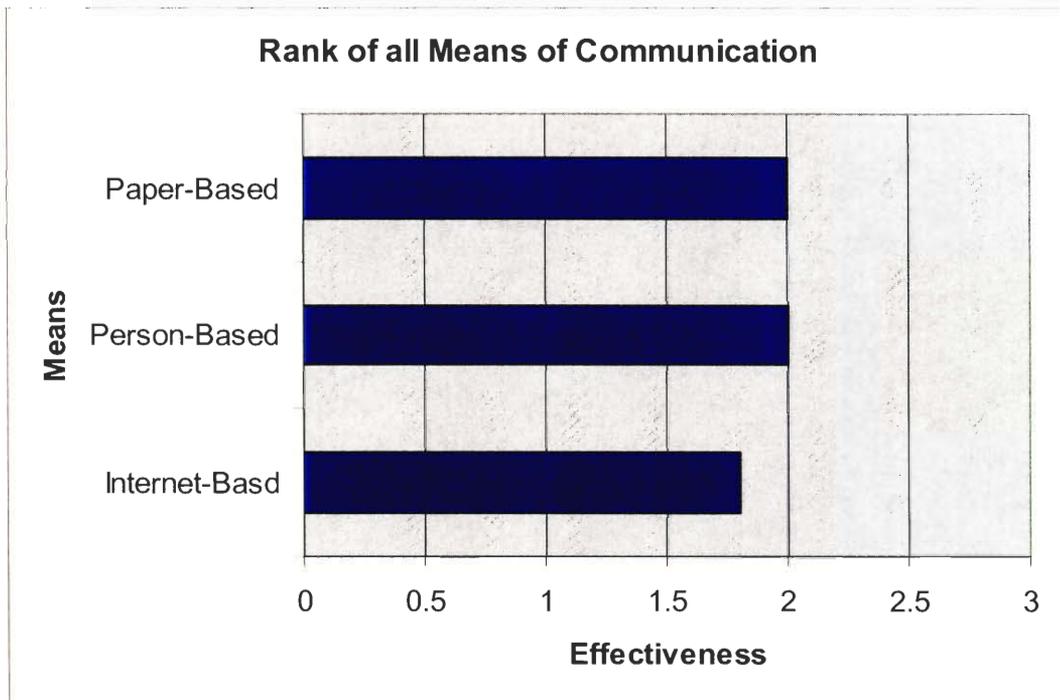


Figure 5: Average rank of all means used. Paper-Based and Person-Based means ranked 2.0, and Internet-Based ranked 1.8.

4.1.2 Analysis of Training/Education

A trend exhibited among the respondents indicated that the majority has a training/education department. The purpose of determining the means used for training/education within companies was to find the best ways to train the corporate membership on the Code as part of our Auditing system (Conclusions; Education Section). The results from the questionnaire show that means most used by respondents

were memos/informal notes and emails. The results also show that among the three means categories (person-, paper-, and internet-based), no preference exists within the corporate membership.

4.2 Implementation

The purpose of establishing the implementation status of the Code is to ensure that our proposed auditing systems addressed the potential challenges encountered by corporate member companies. The results from this section highlight the current status of Code awareness and promotion among corporate members and corporate member clients and identify common barriers to Code implementation.

4.2.1 Code of Practice Awareness and Promotion

Establishing the current level of Code awareness among corporate members and corporate member clients helps illustrate the overall degree of Code implementation. FPA Australia corporate members or their employees who are unaware of the Code cannot promote it to their clients and thus renders a Code-compliance system useless.

Each of the three pre-test interviewees provided similar feedback when discussing their FPA Australia Code of Practice awareness and promotion (Appendix C). Each stated that most companies, including theirs, were merely signatories to a document because the FPA Australia mandates it as a condition of using Code-compliance logos. Likewise, all three interviewees stated that they did not promote the Code among their employees or to their clients.

The questionnaire responses were similar to the pre-test interviewees' statements regarding Code awareness and promotion (Appendix G). Though most respondents (92.2%) are aware of FPA Australia Code-compliant logos, they are generally unaware of

Code-compliant information pamphlets (43.1%) and the annual Code-stipulated revision process (39.2%). Only 27.4% of the respondents have ever provided feedback to the FPA Australia regarding the Code of Practice. With regard to Code promotion to corporate member clients, only 19.6% of respondents distribute Code-compliant pamphlets to clients and a mere 13.8% have developed alternative methods for promoting the Code to their clients. The next question asked the respondent to list media used to inform employees of the Code. The memos/informal notes and email are most utilised (56.9% and 45.1% of the respondents, respectively) for Code promotion. The next most common medium used to promote Code awareness in respondents' companies was pamphlets/bulletins (27.4%) and educational courses (25.5%). See Figure 6.

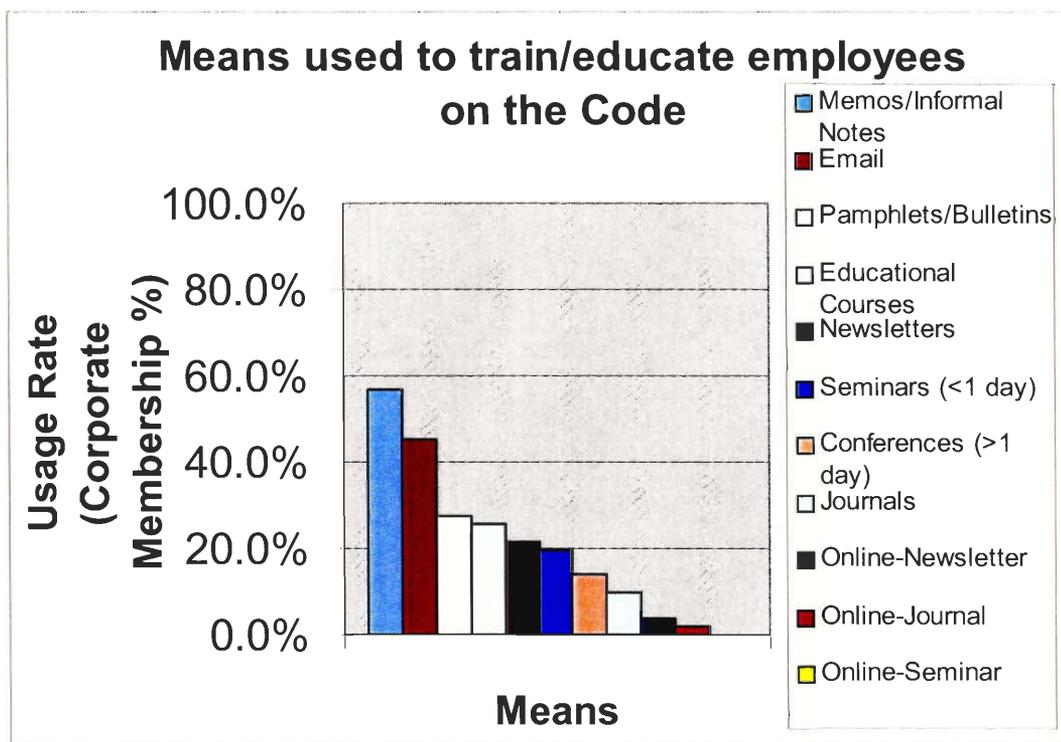


Figure 6: Memos/Informal Notes and Email were used by the highest percentage of the respondents.

The client interview was the last method used to determine FPA Australia Code of Practice promotion among clients of the fire protection industry. We sought to confirm corporate member statements made during the pre-test interviews that clients of the FPA Australia corporate membership are unaware of the Code. The client interviews also established if clients aware of the FPA Australia Code chose to bias their businesses toward Code-compliant companies.

Four clients of the FPA Australia corporate membership were interviewed (Appendix J). Three of the four interviewees responded that they were aware of the FPA Australia but were unaware of the Code of Practice. These three clients believed that a lack of sufficient awareness and implementation within the FPA Australia corporate membership was a primary reason for their own lack of awareness of Code-compliant companies. They do not factor Code-compliance into their decision when hiring a fire protection company. Instead, the interviewees responded that they base their business dealings on the quality of previous work performed by the company they are looking to hire.

The fourth FPA Australia corporate member client, a large government organization, stated that they are aware of the FPA Australia and chose to work with mostly FPA Australia member companies. This corporate member client indicated to us that they are generally most impressed with fire protection work performed by FPA Australia members. However, they indicated that increased Code implementation could be useful for the FPA Australia membership and their clients. To accomplish increased implementation, the interviewees suggested creating an auditing system to monitor Code-

compliance, offering training courses to improve education and awareness, researching avenues to offer educational courses through a University, and applying for the support/accreditation of a larger standards or fire protection organization.

4.2.2 Code Implementation Barriers

Establishing the common barriers to implementation within the corporate membership also helped illustrate the overall level of Code implementation. FPA Australia corporate members hindered by implementation barriers cannot effectively implement the Code and thus do not achieve the Code's aims. The pre-test interviews and questionnaire responses both contributed towards highlighting dominant Code implementation barriers.

The barriers to implementation were first mentioned during the pre-test interviews, and were repeated in the questionnaire responses. According to the pre-test interviews and 17.7% of the survey respondents, the repeated barriers to implementation can be described as follows: lack of training/education on the Code, lack of Code applicability to business activities, and insufficient benefits for Code implementation.

The lack of training/education on the Code was first described as an implementation barrier during the pre-test interviews. The interviewees said that the only information on the Code of Practice, other than what is mentioned in the quarterly FPA Australia journal, is limited to facts on the association's website. A Corporate Gold member followed up this complaint by stating that in order for the Code of Practice to be used effectively, training/education throughout the corporate membership should be uniform to better ensure a uniform level of integrity and business practice in the Association.

The questionnaire responses provided similar feedback to the pre-test interviews regarding the lack of Code training/education. Two responses to the open-ended question asking what barriers are there to implementing the Code provided specific feedback on Code training/education deficiencies. One of the responses listed a lack of uniform Code education across the membership. The other respondent stated that there is not enough communication from the FPA Australia about changes or updates to the Code.

To address this lack of training/education a question was included during the corporate member interviews conducted via telephone. This question asked if members would be willing to participate in a half day or less training/education seminar, to help train/educate employees of their company on the FPA Australia Code of Practice. Of the 14 administered interviews, nine expressed interest, depending on the time and location of the seminar.

The next barrier to implementation of the Code was its applicability to the corporate membership's business activities. The pre-test interviewees and questionnaire respondents both listed lack of Code applicability as an implementation barrier. During the pre-test interviews, two of the corporate members said that the Code primarily focuses on active systems installation inspection while leaving out passive fire protection consulting work. They stated that consulting firms, like their own, do not necessarily worry about fire systems installation and maintenance in their line of work. According to these members, a more comprehensive document that is also applicable to passive fire

protection services would be easier to implement among all corporate members of FPA Australia

The questionnaire dealt with the applicability of the Code by asking if any changes were needed to the Code of Practice. This question was followed up by an open-ended question asking what these changes should be. Twenty-five and a half percent of the respondents felt that the Code of Practice needed changes. One of these respondents stated that an expansion of the Code of Practice principles to include all products and services conducted by FPAA members was necessary. Another respondent believed that the Code appears to be biased towards the fire servicing sector and thus should be revised to include consultants.

The final barrier to implementation was insufficient benefits associated with implementation of the Code. This was first mentioned during the pre-test interviews and again appeared in the questionnaire responses. During the pre-test interviews, a Gold Member stated that implementation was a seemingly costly and time-consuming measure with no tangible benefit. As an example, the member stated, a lack of Code of Practice education among the corporate membership means the Code can not be marketed.

Without this marketability, clients do not bias their business towards Code-compliant companies, which in turn provides no benefit to the corporate membership. Without this financial benefit corporate members have no incentive to implement the Code.

The questionnaire responses also listed insufficient benefits as an implementation barrier. The questionnaire contained a question asking how much benefit the respondent's company receives from using the Code of Practice, based on a 1 ("not at all") to 5 ("a great deal") Likert scale. The average response to this question was a 2.9, with 3 equivalent to "some" benefit. Also, some statements about benefits were received through the open-ended question on barriers to implementation. One of these statements commented on the low level of client awareness on the Code of Practice. Another statement was made that the FPA Australia should better educate fire industry clients and building owners on the advantages of the Code of Practice and benefit of using Code-compliant companies. Finally, the respondents mentioned that if the Code provided some marketing advantage, or had an auditing system to "level the playing field," or both, they would allocate the time and resources necessary for proper implementation.

4.2.3 Analysis of Implementation

The FPA Australia Code of Practice, while indicated by FPA Australia corporate members as useful towards their business goals, is not fully utilised by the majority of the corporate members. We determined that there is little Code awareness among the corporate membership and almost no Code-compliance promotion to corporate member clients. We gathered information gathered that identified three recurring barriers to implementation: lack of training/education on the Code, lack of Code applicability to business activities, and insufficient benefits for Code implementation. Based on these findings our proposed auditing systems should include provisions to help corporate members promote the Code to their clients and address the three barriers to implementation.

4.3 Auditing the Code of Practice

The final objective of our project was to develop an effective auditing procedure to ensure Code compliance. The purpose of such a procedure is to create credibility and benefits for the corporate membership of the FPA Australia. This section establishes whether companies have an auditing system, provides corporate membership feedback on our proposed auditing procedure, and summarizes standard auditing procedures used by professional auditors/companies.

4.3.1 Interviews (FPA Australia Corporate Membership)

The goal of our interviews with FPA Australia corporate members was to gather feedback from all four corporate membership levels of the Association on our proposed auditing procedure. The proposed procedure, as described in our interview agenda, was:

An FPA Australia auditor checks up on approximately 20% of corporate membership annually, resulting in each company being audited at least once every five years. Auditor ensures compliance with FPA Australia Code of Practice through review of company documents, policies, etc, which demonstrate compliance with other codes and regulations. Possibly, the FPA Australia may require that an independent auditing company be used. Auditor may also check into past work history to ensure consumers are satisfied with member's work.

We interviewed via telephone a total of 14 corporate member companies, divided as follows: eight Corporate Member, three Corporate Silver, two Corporate Gold, and one Corporate Platinum.

The interview format was divided into two stages: determining the method used to ensure compliance with standards in the corporate member's field and getting feedback on our proposed audit procedure. The first section established if the corporate membership has developed methods for ensuring compliance. For this, we asked what government and/or

industry regulations the interviewee complied with, how the interviewee ensured compliance with those regulations, and whether a system existed as part of that compliance procedure for addressing consumer complaints regarding products and service. Adapting compliance systems already in use made our proposed auditing system more applicable to the corporate membership. The second section contained questions on our preliminary proposed auditing system. We asked if the corporate member would agree to the auditing procedure, what they expected from a quality assurance audit, and whether they would want the FPA Australia to perform a more intensive technical audit in the future.

For our eight Corporate Member interviews, general trends emerged with regard to questions on compliance systems already in use by companies. All interviewees stated that they had a variety of regulations to follow in their everyday work practice. All companies followed Standards Australia specifications, and those companies involved in contracting also followed the Building Code of Australia (BCA). Some more specific regulations were mentioned, such as those from the National Fire Protection Association, and the Environmental Planning Act, depending on the nature of fire protection service offered. Seven out of the eight Corporate Members answered that to follow the previously mentioned regulations, they used regulation-compliant forms and incorporated the standards into their company policies. Only one company used an independent auditing company to ensure compliance. Similarly, the seven companies that did not have an independent auditing system handled consumer complaints on an informal, case-

by-case basis. The third-party auditing system used by the eighth company incorporated a report based complaint system into its audits.

The responses varied more among Corporate Member companies during the second section of questions on the proposed auditing procedure. Six companies agreed to the fundamentals of the procedure, though they would not commit unless the details were more fully developed. The other two companies thought the procedure did not apply to them, as they were too small to be audited. When asked for additional provisions that could be incorporated into the proposed audit procedure, most (five) thought that it was good enough in its current state. The other three asked that the audit include a report to highlight areas of weakness. The final question on whether the FPA Australia should one day develop and administer a more technical audit derived the same response. Five companies believed that a more technical audit would reduce malpractice within the industry and enhance professional development. Only three disagreed on the grounds that such an audit would be too cumbersome and expensive.

The three Corporate Silver Member companies interviewed provided similar feedback to the Corporate Members. All three were obligated to follow government and industry regulations (BCA and Standards Australia). As with the Corporate Members, one of the Silver Member companies utilised a third-party auditing company to perform compliance audits. The other two companies incorporated the standards into their company policies in a more informal approach to maintaining compliance. In the same manner, these two

companies handled consumer complaints on a case-by-case basis, while the third company's auditing system made it easy to address consumer concerns.

For the proposed auditing procedure, the company using a third-party auditing company responded that a FPA Australia auditing procedure would be unnecessary. However, the other two companies both responded that such a system is necessary to address their concerns about malpractice within the fire protection industry. All three interviewees stated that the proposed procedure did not require additional features. They all also agreed that due to current perceived malpractice, a more technical audit procedure might one day be necessary.

Both of the two Gold Members that were interviewed follow the same basic regulations (Standards Australia, BCA) as members in the other two corporate membership classifications. One company used a third-party auditing company to ensure compliance, while the other company has incorporated the relevant regulations into its policies. The company with the independent auditing system uses the system to address consumer complaints, while the other company handles complaints on a case-by-case basis.

The company with the independent auditing system would agree to adhere to the proposed auditing system, while the other company disagreed on the grounds that it was too vague. Both companies had no comments regarding further specifics to add to our proposed audit procedure. Both companies agreed that a more technical audit would one

day be feasible in the event that our proposed audit reveals widespread non-compliance with government and/or industry regulations.

The one Platinum Member interviewed followed the same regulations as the rest of the interviewees, though the company utilized a complex compliance system of third-party auditing companies, registered training programs, and a quality control department. This company used the third party auditing company as a mechanism to handle consumer complaints.

The company dismissed the idea of being audited by the FPA Australia, since they already employed a third party auditor. However, they would consider the proposed auditing procedure if performed by a trained and accredited independent auditor. The company did not provide any feedback on additions that could be made to the procedure, nor were they open to the idea of a more technical audit in the future.

4.3.2 Professional Auditor Interviews

The primary goal of our interviews with professional auditors was to further develop our audit procedures through identifying standard auditing procedures used by professional auditors/companies. We interviewed four such auditors, three face-to-face and one via telephone. Two professionals interviewed were from Australian government agencies: Scientific Services Laboratory (SSL) and the Australian Consumer and Competition Commission (ACCC; background information on ACCC located in Appendix L). The other two professionals interviewed were directors of companies that specialize in industrial and commercial quality assurance audits.

Our phone interview with Ken Lofhelm, manager of the Australian Paint Approval Scheme (an initiative of the SSL), produced a summary of the code of practice audit method used within the paint industry. Members of the paint industry can follow a voluntary code of practice, much like members of the FPA Australia. To ensure compliance, the paint industry has accredited auditors to perform ingredient checks on the contents of paint cans against the ingredients listed by the manufacturer. In the event of a discrepancy, SSL can revoke accreditation. This technical audit is sufficient to ensure code of practice compliance among the industry's companies (personal communication, April 13, 2004; see Appendix K).

Our interview with the ACCC provided minimal feedback with regard to our proposed audit procedure. Instead, the ACCC's recent development of guidelines for accrediting industry code of practice influenced our interviewee to focus primarily on areas where the FPA Australia Code could be enhanced. Konrad Chmielewski, National Director for Industry Codes, reviewed our preliminary results and the FPA Australia Code to locate some sections of the Code that were impairing effective implementation. He explained that the Code could not be audited and our audit procedure critiqued prior to addressing corporate membership concerns regarding the Code's applicability (personal communication, April 21, 2004; see Appendix K). Thus, our audit procedure was not modified as a result of this interview; however, the feedback gathered from Mr. Chmielewski was used in developing our Recommendations.

Our interviews with two auditing companies provided a summary of the methods they use to perform code of practice and quality assurance audits. The first interview with Glenn Talbot of Verified P/L elucidated the methods used by his web-based company to ensure contractors of industrial work perform their work in accordance with government and industry standards (personal communication, April 6, 2004; see Appendix K). His company operates by providing contractors who are performing a building inspection an industry and government regulation compliant checklist that can be filled out and mailed back to Verified P/L. From there, the checklist is electronically scanned and analysed to ensure all work has been performed in a timely manner. The building owner and contractor are notified in the event that some part of the inspection is not performed. This method allows the building owner to sign off in good faith on the building's safety.

Our second audit company interview was with Mr. Roland Storti of Linked Business Concepts (LBC). Like Verified P/L, LBC provides industrial and commercial code of practice auditing services. Also similar to Verified P/L, LBC operates via a web-based system, though contractors can submit reports to the LBC central server using more options (Personal Desktop Assistant, webform, fax, etc). LBC offers a variety of customisation options, which allows their audit system to adapt to an association or business's specific needs (personal communication, April 20, 2004; see Appendix K).

4.3.3 Analysis of Member and Professional Auditor Interviews

The interviews conducted with FPA Australia corporate members and professional auditors provided a wealth of information with regard to the proposed auditing procedure and helped to create other auditing procedures. The corporate member interviews

provided an idea of how other government and/or industry standards are followed. The interviews with professional auditors provided information on similar codes and auditing procedures used in Australian industry.

The responses gathered from the FPA Australia corporate member interviews contained general trends that were incorporated into our auditing procedure. All four levels of membership followed the same regulations involved in fire protection services.

However, the majority, 71.4% (ten), of the interviewees did not have an auditing system in place to ensure compliance with these regulations and a set system for handling consumer complaints. This supports the idea that the auditing procedure would need to be conducted by an independent auditor, or the company would need to create an internal self-audit system. Of the fourteen interviewees, 78.6% (eleven) agreed our auditing procedure would be feasible if performed by an accredited third-party auditor. Only nine companies (64.3%) stated that they would agree to a more technical audit on behalf of the FPA Australia in the future, though most stipulated that there would have to be evidence of widespread industry malpractice before agreeing to it.

The professional auditor interviews provided code of practice audit procedures that we then adapted for the FPA Australia's needs (see Conclusions; Audit Procedure). The SSL interview illustrated how the paint industry addresses code-compliance through a technical audit. The ACCC interview directed our focus towards improving the Code of Practice guidelines, before trying to audit the corporate membership on it. The two interviews with businesses that specialise in code of practice auditing provided an additional audit procedure in our Conclusions section.

5 Conclusions

A comprehensive Code of Practice Auditing system resulted from fourteen weeks of research and development. We established the training/education methods most commonly used within corporate member companies, determined the level of implementation by establishing the level of Code awareness/promotion and identifying common barriers, and finally gather information on audit procedures used in other organisations. The following section contains our conclusions with regard to each project objective.

5.1 Training/Education

The most widely used and highly ranked training/education means to disseminate information to employees were informal notes/memos and email. However, due to the limited amount of information, which can be conveyed using these means of communication, we conclude memo or email messages are best used to disseminate awareness information about the Code of Practice, and to obtain feedback from the corporate membership.

The most feasible methods for training/educating on the Code are person-based seminars, conferences, and continuing education courses. The corporate membership rated these three training methods as equally effective. Since our background research on similar organisations commonly depicted seminars as an effective medium for training, we specifically noted any mention of seminars while collecting feedback. We received feedback during one of the pre-test interviews (Appendix C) and one of the client interviews (Appendix J) that person-based seminars are an effective training medium. Thus, seminars could potentially establish the necessary Code training/education that companies require.

We also feel that based on the combined webform and email means of response to our survey (70%), the corporate membership is competent in using electronic media. This competence implies that an online seminar or CD-ROM could also be used to help increase training/education on the Code.

5.2 Implementation

The majority of corporate member companies are aware of the FPA Australia and the existence of an FPA Australia Code of Practice. However, they do not implement nor are aware of the Code's specific guidelines. Likewise, corporate members do not promote the benefits of Code-compliance to their clients. In order for companies to successfully implement the Code, they require a comprehensive understanding of the Code, applicability to all corporate members' fire protection activities, and incentives to implement it.

5.3 Auditing

The majority of the corporate membership at this time does not utilise a self-audit mechanism to ensure compliance with the Code. Instead, most companies rely on “common-sense” approaches (ex: following government- and industry-compliant report forms). However, a small portion of the companies interviewed and surveyed use third-party auditing companies to maintain compliance.

The majority of the corporate membership is favorable to our proposed audit procedure (Appendix I). Most members stipulated that as long as an accredited independent professional performs the audit, they would agree to the procedure. Many corporate members believe that there is a degree of fire protection industry malpractice and thus would like to see their industry further regulated.

6 Recommendations

The following recommendations were developed through analysis of the project results and background research. The auditing system we are proposing provides multiple methods to train/educate companies about the Code, addresses ways to improve Code awareness/promotion and overcome barriers to implementation, and offers a variety of audit procedures. To successfully utilise our auditing system, the corporate membership must first be made aware of the Code, then trained on the Code, and only then audited for Code compliance. The entire auditing system is best illustrated by Figure 7.

Auditing system (flow chart)

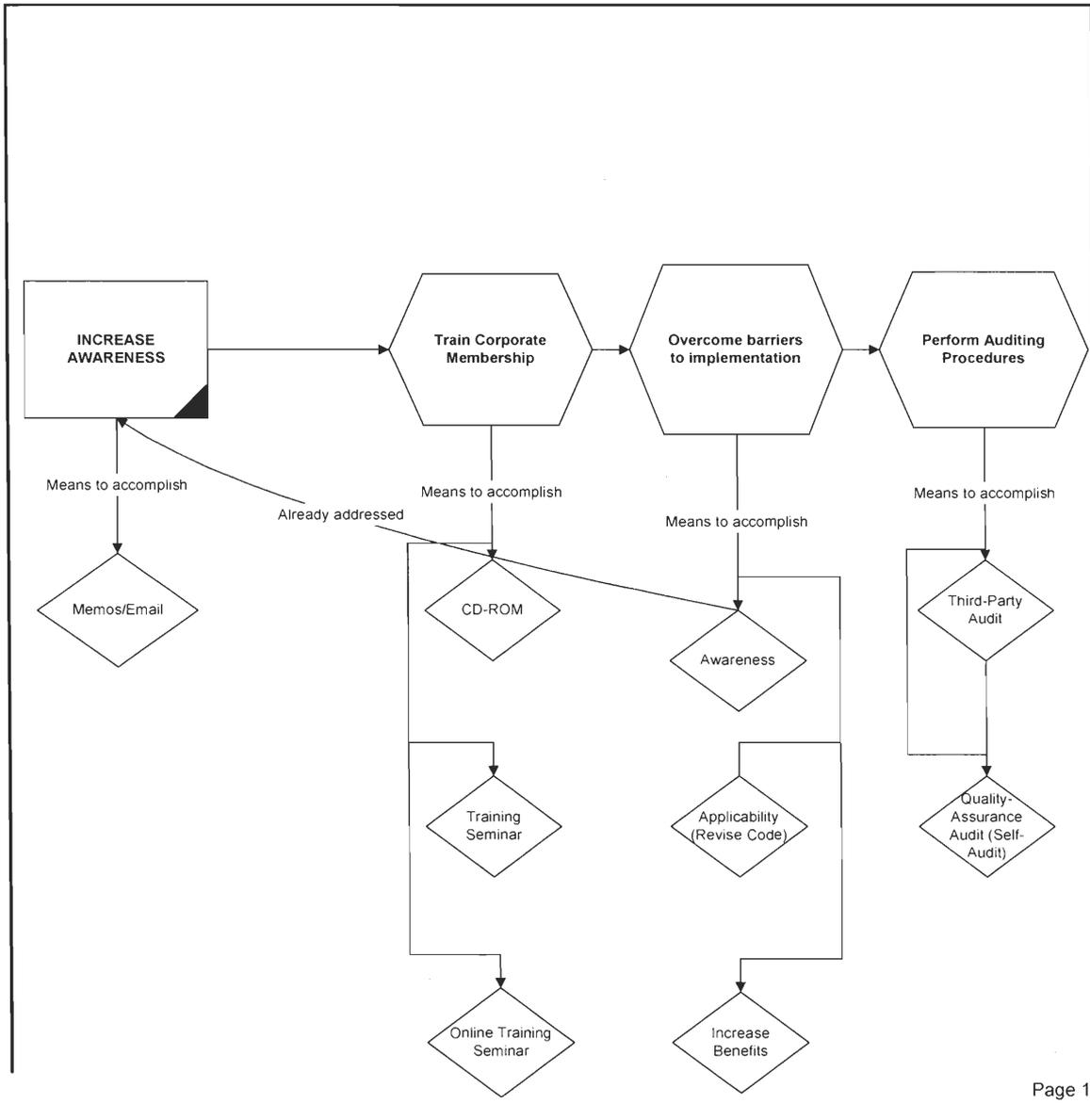


Figure 7: Auditing System Functional Block Diagram

6.1 Improve Awareness

Before establishing training programs and auditing procedures to ensure Code compliance within the Association, there needs to be universal corporate member awareness of the Code of Practice. All methods eliciting feedback on Code of Practice awareness indicated a need for improvement, and although this issue is covered under our implementation objective, we feel it necessary to first address it here.

The means to communicate and develop a foundation for Code awareness should include memos and email. These tools were the highest ranked means of communication within our questionnaire results, and can provide the FPA Australia important feedback on corporate member Code of Practice issues. Data collected from the members can be compiled and incorporated into later training programs. Only after establishing this fundamental knowledge throughout the Association can the FPA Australia successfully train/educate corporate members on the Code.

6.2 Train/Educate Corporate Membership

After the corporate membership is fully aware of the Code of Practice, a training program can be instituted. The three proposed methods to accomplish this end are: person-based seminars, a CD-ROM program, and an online-seminar.

Person-based seminars are our first proposed method to train/educate corporate membership employees on the Code. As indicated in our Conclusions, responses from corporate member and client interviews indicated seminars are an effective tool that companies currently use, and would be willing to participate in. Our background research on other organisations with an established code of practice also indicated that seminars were an effective tool to train their employees.

The Code guidelines are fairly lengthy, comprehensive, and technical in nature; therefore the types of tools that allow the dissemination of a large amount of technical information are the best candidates. Seminars are well-suited to address the need for a more extensive knowledge of background about the FPA Australia and the Code of Practice within the corporate membership. Seminars could also fulfill a secondary purpose, which is to collect feedback from the membership. The feedback could elicit a response from the attendees on the Code of Practice which would provide the FPA Australia insight on how to improve the Code of Practice. A drawback with seminars is the amount of training and time required for instructor education. Also, there is the issue of determining a convenient time and location for companies to meet. As shown in our demographics

(Appendix G), the corporate membership is spread throughout Australia; therefore to accommodate the membership further research would need to be conducted to determine the best locations and times.

A second medium that can be utilised to train the corporate membership is a CD-ROM program. Based upon the respondents' computer competency (discussed in Conclusions; Training/Education) and the demographic spread of the corporate membership, we feel a CD-ROM program can be a powerful tool to reach a widespread, computer-literate membership.

Due to the nature of corporate member locations throughout Australia (Appendix G), a CD-ROM program can provide a feasible medium for distribution training and educational material. A CD-ROM program reduces the cost required to train instructors and eliminates many office space considerations necessary when conducting seminars. Once the content of the program is fully developed, the CD-ROM can be mass produced at a relatively low cost. Most home computers equipped with a CD burner can produce a CD-ROM for the cost of less than \$AUD 1.00 per disk; however, this does not cover professional development of the CD-ROM program content, which could cost upwards of \$AUD 500 for the master CD (Adams, et, al. 2004). An issue to consider when developing a CD-ROM program is that once a CD is created the content cannot be changed. Another risk of relying upon a CD-ROM program is the lack of assurance that all members receive and complete it. This problem can occur if the corporate member who receives the CD-ROM does not distribute it to employees. One common-sense

approach to this potential problem would be including a note at the end of the CD-ROM program directing the member to a webform hosted by the FPA Australia. Entering a code provided at the completion of the program into the webform signals the completion of the CD-ROM training.

The last proposed education medium is online seminars. Our background research on General Electric (GE) revealed that online seminars are an effective tool companies use to train employees. An online seminar also addresses the demographic concern previously mentioned through its inherently accessible nature, as internet access is reasonably easy to obtain in most parts of the world. If properly developed, online seminars can indicate to the FPA Australia which companies have participated and successfully completed the training. An online seminar provides the flexibility of a CD-ROM program, and can also be used as a means of direct communication through chat forums, and other interactive communication tools. The drawback of an online seminar is the amount of resources required to host, develop, and maintain it. Development would also require a high degree of technical expertise. The cost of hiring an outside company may vary depending on the extent of the program's content; to host a basic online seminar, costs range from \$AUD 3,500 – 4,500 (Adams, et, al. 2004). However, this does not include the cost of development. We still feel that the online-seminar's benefits outweigh these drawbacks.

6.3 Implementation

Our results identified three barriers to implementation: lack of training/education on the Code, lack of applicability of the Code and insufficient benefits from implementing the Code. Based on our results and conclusions, we have developed methods to overcome these challenges.

With the lack of training/education addressed in the previous section, the next barrier to overcome is Code of Practice applicability to the entire corporate membership. The ACCC provided suggestions on ways the Code of Practice guidelines could be amended (Appendix M). We feel the most effective way for FPA Australia to address these suggestions would be to form an executive board or committee charged with reviewing and revising the Code on a regular basis (the current Board of Directors may suffice for this role). The board or committee would then present any amendments to the FPA Australia director for endorsement. This process should be performed each year to make sure Code applicability is continually maintained.

The final barrier to overcome requires increasing the benefits corporate members receive for Code-compliance. One approach to increasing benefits would be to increase consumer awareness through marketing. Pamphlets created for consumers by the FPA Australia could incorporate a more detailed description of the Code of Practice, how it helps to ensure higher integrity and quality, and how the auditing system ensures compliance. This could potentially increase business between the FPA Code-compliant corporate membership and fire protection clients. Advertisements placed in reputable fire

protection journals and promotions at fire protection conferences could also generate initial awareness.

Another possible method to increase implementation benefits would be to negotiate reduced insurance premiums for corporate members. A major concern throughout the fire protection industry is the rising cost of insurance premiums. Due to the hazardous nature of fire protection work, corporate members usually utilise relatively large liability insurance plans. If insurance companies were convinced that FPA Australia Code-compliant members are held to a higher level of integrity and work quality, the insurance company might lower its premiums on liability insurance. This reduction in insurance premiums would provide an immediate financial benefit to Code implementing. Eventually, overcoming these barriers should contribute to increase corporate membership Code implementation.

6.4 Auditing

Developing a method to ensure corporate member compliance with the FPA Australia Code of Practice was the primary objective of our project. Through our research we have identified three auditing procedures which and are proposed below.

The first proposed audit procedure is a quality-assurance check that would verify the auditee's compliance with relevant government and/or industry regulations. With a corporate membership of roughly three hundred companies, an accredited FPA Australia auditor would visit a fraction of the corporate membership annually. For example, if the auditor were to audit 20% of the corporate membership annually (at least one visit per company every five years), the auditor would need to visit approximately one to two companies per week (1.15 companies/week). The FPA Australia would have the discretion of whether to notify the auditee of the check ahead of time. To perform an audit, the auditor would visit a corporate member's headquarters and view company documents and forms to verify that the company operates according to relevant quality standards. Also, the auditor would obtain client contact information in the event the auditor needed to check on past consumer satisfaction.

The auditor would follow a procedure similar to that used by ANSI (see section 2.2) when there is a breach of compliance. The auditee is provided a report of the breaches, along with a timetable to rectify the problem. The audited company would then have to submit strategies to solve the breach within an allotted time frame. Consequences of not

achieving full-compliance could range from a warning to cessation of membership, depending on the severity of the breach.

This procedure is suitable for the FPA Australia for two major reasons. First, only one quality-assurance auditor would probably be necessary for the Association's auditing needs. This procedure would thus require relatively little financial expenditure with regard to benefits accrued. The second reason is that the complexity and cost of a technical audit is avoided, while still providing a method of enforcing Code-compliance. A drawback to this method is that corporate member companies are spread across Australia, preventing audits of more than a small fraction of corporate membership annually.

The second auditing procedure was adapted from our interviews with professional auditing companies (Appendix J). These companies are hired by building owners, schools, etc., to ensure that contractors (e.g. fire protection servicing companies) are performing regular inspections, as per government regulations. The auditing company provides the contractor a government and/or industry compliant document with which to perform their regular maintenance checks. The form then is submitted via fax, PDA, internet, or mail to a central server at the auditing company's headquarters. The form is then electronically scanned into a database. The building owner and contractor are then able to view the results of the inspections nearly instantaneously. With this service, the building owner is immediately aware if the contractor has not performed work. All of

these inspection reports are also compiled into an annual report allowing the building owner to sign off on the building with confidence.

For the purposes of the FPA Australia, this audit procedure could be applied to the entire corporate membership. FPA Australia corporate members could be required to perform all work in conjunction with a third-party auditing company. Contractors that are members of the Association would stipulate to their clients that all work must be performed with this auditing service. Consultants would also be required to hire only contractors that use a third-party auditor.

This audit procedure also has two benefits. The FPA Australia would not need to spend any additional funds to achieve a compliance mechanism. Unlike the quality-assurance or technical audit, this procedure places the task of monitoring compliance on each company. Also, having a third-party auditor check all work performed is the equivalent of an audit of all corporate members all the time. A drawback to this method is the increased cost for the corporate membership in stipulating to their clients the necessity of a third-party auditor.

A third audit procedure is a comprehensive technical audit. This audit would be performed at random (or at the discretion of the FPA Australia) and would include visiting the company and/or worksites to physically inspect work performed. This type of audit would require much more time and expertise to perform. We have developed a technical audit procedure for the FPA Australia based off of ANSI's auditing procedure

(Appendix L), but have excluded it from this section due to its bulk and prohibitive drawbacks. To instantiate a technical audit resources would have to be dedicated to ensure the all the fire protection industries of the FPA Australia are covered. This would require a vast amount of time and research, and could be something that lies in the FPA Australia future.

Utilising our training/education and implementation recommendations in conjunction with one of the proposed auditing procedures will ideally achieve The FPA Australia's goal of an auditing system for its Code of Practice.

6.5 Further Work

Through our survey and interviews with members and non-members, we were provided with a wealth of information that was not immediately pertinent to our project. However, this information may still be helpful to develop future projects for the FPA Australia.

One future project could be further developing a technical auditing procedure. We have outlined the contents of a technical audit in Appendix L, but more refining is necessary to make it feasible for the FPA Australia. Technical expertise would be valuable in providing the audit technical relevance.

Another project issue that could be further developed is Code marketing options.

Marketing the Code to fire protection company clients would ideally increase awareness and increase business for FPA Australia corporate members. This project would entail discovering effective media to disseminate information and thus increase consumer awareness. Our suggestion of advertising in fire journals and at fire conferences will likely reach some consumers of the fire protection industry but not all. A more comprehensive marketing approach is needed.

Many codes of practice are typically accredited by larger industry or government organisations. Currently, the FPA Australia Code of Practice lacks endorsement from such an organisation. This accreditation would give the Code more credibility and would likely increase its marketability. A project could research different associations from which obtaining accreditation would be advantageous to the FPA Australia. This project

could also be taken a step further to include researching methods to incorporate the Code of Practice into government legislation, which has been identified as a step the FPA Australia is looking into pursuing.

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Appendix A: Mission and Background of FPAA

The FPAA is a non-profit organization “seeking to promote fire awareness and the work of the fire protection industry” in Australia (FPAA, June 2000, Code p.1). The fire industry includes a wide variety of individuals and companies which can include “government, fire and emergency services, insurance, research, architecture, building, health, education...and those working in the design, manufacture, installation and maintenance of fire protection systems” (FPAA, January 2001, About FPAA).

With the merging of two smaller fire protection agencies, the FPAA was formed in 1997 from The Australian Fire Protection Association (AFPA), and the Fire Protection Industry Association of Australia (FPIAA) (FPAA, 2001, About FPAA). The reason for this merger was to gain a more influential voice within the fire industry. Both these longstanding organizations had within them many well respected members of the fire protection community that separately did not have enough impact to contribute to the community. With the formation of the FPAA both companies gained more influence, and a stronger voice within the community.

One of the many services that the FPAA is able to provide to the community is the development of technical policies. An advantage that the FPAA has is direct presentation within the Committee of Standards. The importance of this influence is that the Committee of Standards is government related, so the members of the FPAA community have influence on the laws and sanctions directly related to their work.

With its members' interests in mind, the FPAA is dedicated to the promotion of fire safety as well as good business practice. In order to achieve this goal, the FPAA created a Code of Practice, which outlines specific standards for members and companies to follow (FPAA, June 2000, Code p.2).

The Code of Practice itself mostly deals with the technical aspect of the fire industry. There is an accompanying document that deals solely with the ethics concerning business practices. Included within the Code of Practice are references to appendices which deal with the specific physical locations of fire related installation and servicing procedures (FPAA, June 2000, Code).

Appendix B: Background Interviews

Section Barnett

Jonathan Barnett

**note- This interview was not done according to any question and answer session. Professor Barnett insisted on keeping it a casual conversation, and fielded any subjects I brought up. The following is a summary of what he had informed us on. I had initially went into the interview with a lot of questions, however after our 'conversation' I was left with sufficient information on our topic*

Credibility (Why is he a good source)

Professor Barnett is a world renowned leader in the Fire Protection Industry. He has been down to Australia and working with the FPA Australia for more than 10 years. To his credit he has his PHD in Fire Protection and was even called in analyze ground zero of the tragedy from 9/11. He has been working in the industry since 1976, and consulting since 1979.

Summary

Professor Barnett has strong relations with the FPA Australia, and personally knows the sponsor that we will be working with once we get down there. He also commented that he has already been to Australia in this past year to check up upon our project details to see if there have been any changes. Basically what we got out of our interview was that our project now has 3 parts to it. Below is the outline of our project, as given by Professor Barnett

- I. Education
 - a. Are the members of the Fire Association educated on the code of practice? This is the first thing that we need to somehow check up upon within the membership itself.
 - b. We will need to create a survey to question those members and find out how much the information has been passed on.
- II. Implementation
 - a. If companies are educated with the Fire Code of Practice are they now actually using it?
 - i. Why would they not use it? Is it well known enough? Are there other reasons?
 - b. Is it worth their time and money to implement this code and follow it?
- III. How to check up on the people (Auditing)
 - a. We need to somehow create a system whereby we can check up on companies that are members to ensure compliance with this code.

Professor Barnett also described our sponsor and mentioned that he had a lot of experience with young adults. He went on to say that this experience was from extensive training of apprentices ranging from the ages of 18-22. We will be evaluating the Code of Practice to its fullest. From the very start we will analyze the education and reputability of the code, and then follow up with whether

companies are following it or not. Finally, determining the worth of this code to companies we will generate some type of monitoring system to ensure future compliance.

In the interview Professor Barnett insisted that we look at the big picture of the project and not just focus on the fire protection aspect. He mentioned that it is better to research any type of company and find out how they deal with their codes of practice, and monitor compliance.

When we mentioned how we thought that our project might be leaning toward getting approval with the ACCC, Professor Barnett dismissed the subject and said that the first important issue we need to resolve is the education of the code. The ACCC might help later in the future of the Code, but within our 7 weeks we will be most concerned with developing a method to educate and implement the code.

The final thoughts of our 'conversation' were that Australia was going to be a lot of fun. We should have no problem with our sponsor, and that they are very supportive of our project. We were informed that our sponsor is actually paying WPI for the project, and he impressed upon us that we should not have any trouble getting any help from anyone within the company

Section Hodge

Ross Hodge (Sponsor)

From looking at all the interview summaries the most important points are as follows:

Project will be broken into 3 distinct parts as discussed in private pqp meeting. These parts are outlined as follows;

I. EDUCATION

- A. We will be testing to see how wide spread the information on the code is
- B. We need to then come up with new methods to keep members updated on the code.

II. IMPLMENTATION

- A. We will test companies to see if they are actually following this code, and holding employees accountable to it.
- B. If companies are not following this code why not
- C. We need to come up with a methods to let them know that the code is actually a positive reflection of the quality work the company will do

III. MONITORING/AUDITING

- A. We will come up with an original method to test companies.
- B. Basically there is no current system of checking up upon the member companies
- C. Member companies range from very large to very small
- D. We need a set of 'common sense' procedures for the FPAA to follow so that they can test each company in a fair way

All of our interview summaries concluded that the problem with the code is the fact that not enough people know about it, and it is not being used in the proper fashion. Ross had commented that with the right support the code can actually become a very valuable tool for giving credibility to companies interested in quality. It will soon serve as a method for consumers to see which companies are part of the FPAA and code compliant, and hopefully will improve the standards across the board for the Fire Protection field. Ross encouraged us learn as much as we can about the standards and codes of practice in the United States, so that we can hopefully get some ideas for our project

Section Beller

Bob Beller (NFPA Interview)

The interview started out with us introducing ourselves and giving Mr. Beller a brief overview of our project. Once he had a general understanding of what we were trying to do for the FPAA, we asked some questions as to his education and background in the field. He graduated from WPI with a B.S. in Mechanical engineering in 1980, and then received his M.S. in Fire Protection degree in 1987 also from WPI. He worked at FM Global Research for a few years before he landed a job with the National Fire Protection Association (NFPA). At the NFPA his job title was Fire Modeling Specialist, but he mostly worked with performance based fire codes.

Now we began to ask him if the NFPA had any type of auditing or monitoring system to make sure its codes were being followed. He explained that the NFPA came up with the codes and standards but weren't in charge of enforcing them. Usually the codes were passed on to building inspectors and fire marshals. It was up to them to make sure that contractors and companies had correctly installed the alarm system, sprinklers, etc...

We then asked if he knew of any organizations that did have a monitoring system to make sure there codes were being followed. After a few moments of thought he gave us some good leads.

- BuildingReports.com – A company that makes sure fire alarms are up to code.
- ISO-9000 – An evaluation service, works mainly with manufacturing. A lot of companies are certified by them, and it would be impossible to check up on all them at once, might have a randomized monitoring system.
- SFPE – Society of Fire Protection of Engineers has there own code of ethics and practice. If not followed membership would be revoked. May have a more common sense or simple monitoring system due to not having lots of money.
- Norway – The organization couldn't be remembered, but was most likely closest to what we are looking for. Design firms must submit there plans to this organization, the organization reviews them and approves the plan. However they don't inspect necessarily inspect the actual building process. They can randomly show up and compare the building to the designs, even after it has been built for a few years. If there is a discrepancy the building has to be corrected or torn down, and that design firm looses complete credibility. Simple and common sense much like our sponsor wants.
- Marks and Spencers – A department store in the UK which allowed their store to be used as a testing facility for evacuation drills. Their employees are highly trained in fire procedures, since the store owners see fire awareness as an important subject.
- Dick Custer – Now works for ARUP in Westboro, MA, but at one time worked for the Australian Fire Code Reform Center.

With all of these leads we thanked Mr. Beller for his time and help with our project.

Section Backstrom

Bob Backstrom (UL)

This interview was an informal phone conversation without a set of interview questions, as it was easier for Mr. Backstrom to fit it into his schedule. The interview started by going over Mr. Backstrom's background and credentials. He received his B.S. in Mechanical Engineering from UTI and a M.S. in Fire Protection Engineering from WPI. Mr. Backstrom is currently employed by Underwriters Laboratories as a Fire Protection engineer.

We then discussed how UL gets its codes and standards that they enforce. UL doesn't actually write their own codes and standards, but rather gets them from other organizations such as NFPA, AFPM, ASME, and others.

Next was how UL checks and monitors for compliance. UL has five hundred field service people, which go to companies and check to see if the code is being followed. The inspectors show up for unannounced inspections. If anything is found to be wrong they do a follow up inspection after the company has had time to address the problem. Depending on the severity of the offense the inspectors will pull their backing of the company. Taking away the ability to mark UL on their product is the only punishment UL can hand down, since it has no legal abilities. If a customer has a complaint about a company backed by UL they can file a complaint online at UL's website, and UL will look into the company's practices.

Appendix C - Pre-Test Interviews

Interview of Corporate Member

Date: March 22, 2004

Time: 10:15 am – 11:00 am

Interviewers: Ryan Casey

Interviewee: Corporate Member

Summary:

Interview was conducted to pre-test our questionnaire, which will be used in conducting our survey. The interview focused on getting feedback on questionnaire content, format and overall usability.

Minutes:

- Introduction:
 - o Provided interviewee a brief description of my relationship with the FPA Australia and the overall project at hand.
 - o Explained the purpose of the questionnaire, and why I was pre-testing it with him.

- Administering the questionnaire:
 - o Gave interviewee exactly 15 minutes of privacy to complete the questionnaire as he saw fit.

- Feedback from Interviewee:
 - o Section II question 2, felt that we should maintain continuity with the question posed in Section II question 4 by labelling the newsletters and journals as (weekly, monthly) and (quarterly, annually) respectively.
 - o Had the same general complaint as the previous Corporate Member, in that the Code of Practice fails to address issues with people involved in passive system inspection (e.g. building surveyors). Currently, he stated the Code only concerns active systems inspection and that this lack of information for people in his field (surveying, consulting) makes implementing the Code difficult and impractical.
 - o Membership needs to be better educated on Code if they are expected to implement it!

Conclusion:

The interviewee was very busy at the time of the interview and was only able to provide limited feedback on the questionnaire. However, his similar overall comments to the previous Corporate Member's feedback regarding the Code may be an indicator of a major implementation barrier.

Interview of Corporate Member

Date: March 19, 2004

Time: 10:00 am – 11:00 am

Interviewers: Ryan Casey, Adam Daniels, Todd Sullivan

Interviewee: Corporate Member

Summary:

Interview was conducted to pre-test our questionnaire, which will be used in conducting our survey. The interview focused on getting feedback on questionnaire content, format and overall useability.

Minutes:

- Introduction:
 - o Provided the interviewee a brief description of our relationship with the FPA Australia and our overall project at hand.
 - o Explained the purpose of our questionnaire, and why we were pre-testing it with him.

- Administering the questionnaire:
 - o Allowed the interviewee a few minutes to read over entire questionnaire, before we asked him for his feedback.

- Feedback from the interviewee:
 - o Section I question 1, he felt that term fire protection field was too general, and should be more specific.
 - o Section II question 1-5, felt that the term information dissemination was too broad and unclear. Suggested using terms such as educate or train.
 - o Section II question 6, felt was an important question but should be expanded on with an open-ended question following it.
 - o Section III question 3, felt was an important question but should be expanded on with an open-ended question following it.
 - o Overall he felt our questionnaire should be adapted to be administered to building surveyors to find out why they do not follow the FPA Australia Code of Practice. Also, he said that Code awareness should be improved among the membership via better Code update distribution methods.

Conclusion:

The interviewee took the questionnaire and our project very seriously. He was quick to provided useful comments in the hopes of improving our work. With his comments we made many changes to our questionnaire to improve our overall survey.

Interview of Corporate Gold Member

Date: March 23, 2004

Time: 9:00 am – 10:00 am

Interviewers: Ryan Casey, Todd Sullivan

Interviewees: Corporate Gold Members

Summary:

Interview was conducted to pre-test our questionnaire, which will be used in conducting our survey. The interview focused on getting feedback on questionnaire content, format and overall usability. However, the Corporate Gold Members provided a wealth of information regarding Code applicability problems and helped us set up interviews with consumers of their services.

Minutes:

- Introduction:
 - Provided interviewees a brief description of our relationship with the FPA Australia and the overall project at hand.
 - Explained the purpose of the questionnaire, and why we were pre-testing it with them.

- Administering the questionnaire:
 - One interviewee took the questionnaire and provided feedback as he went along. Other interviewee explained that he wished to complete the questionnaire at a later time and promised to email over his results.

- Feedback from interviewees:
 - Interviewee made clear at beginning of questionnaire administration that his company does not follow the FPA Australia Code of Practice nor does it have any incentive to
 - Interviewee did not have any comments regarding questionnaire format or content. He directed his suggestions toward improving the overall marketability of the Code. His business did not see any reason to implement the Code when his clients were not aware of it. He said that architects, consultants, etc. did not bias their business towards Code-compliant companies. Interviewee suggested improving Code awareness among clients and agreed that an auditing system is necessary.
 - The interviewees helped us set up interviews with a local major consulting firm, Lincolne Scott, and with Russell Simmons, head of fire protection for the Melbourne Toyota plant.
 - Interviewee took us for his 11 am inspection of the Crown Casino, which is a one of their clients. He showed us around the various projects his company is currently working on. Later, we met with Mr. Rod Sinclair, Manager of Fire and Safety Systems for Crown Casino, and went on a tour of the various fire protection systems the casino employs. We discussed

with Mr. Sinclair the importance of business and installation standards in his company.

Conclusion:

We went into the interview with the expectation of receiving general feedback on the questionnaire format and content. However, after listening to the suggestions of one of the largest installation and consulting firms in Australia (Corporate Gold Member), we have decided to extend the scope of our interviewing. We shall now interview as many clients of FPA Australia member companies as possible, with the intent of determining what factors make an appealing code of practice.

Appendix D – Questionnaire Development and Distribution

Questionnaire Development

Before we were able to mass distribute our questionnaire, we pre-tested it. The pre-testing was broken down into two phases: The first phase of our pre-testing was to distribute the questionnaire to our liaison and advisors. After incorporating the additions from our liaison and advisors, we then went on to the second phase of pre-testing, which entailed interviewing a small sample of local FPA Australia corporate member companies. The intended audience of these interviews was originally all corporate membership levels, to establish that it was applicable to all sized companies; however, due to limited resources, transportation and time, we were limited to interviewing two Corporate members and one Corporate Gold member. Their feedback provided us with the feedback necessary to create our final questionnaire, and also provided unexpected feedback on the current implementation of the Code of Practice, which is discussed in the results section.

Distribution of Questionnaire

After finalizing our questionnaire we met with our liaison to discuss our audience and methods for distribution. We had originally intended on taking a randomized sample to represent the entire corporate membership. However, after our meeting we learned it was more important to take a census, meaning distribution to all FPA Australia corporate members, to collect as much data as possible relevant to creating our auditing system. In determining the best and most practical method for distribution, we evaluated the benefit of mailing the questionnaire out to every company, versus sending it out to every company via an email. We found that the best method for this would be to send it via email. The major factor in determining which method to use was practicality and time. A webform theoretically could be completed and sent back for analysis within 15 minutes of the initial mailing, compared to the minimum of 2 weeks for a postal mail response. 265 of the 297 (approximately 90%) corporate level companies had an email address, so we were unable to survey an acceptably small fraction of the membership. This small fraction of non-surveyed companies was accounted for in our member interviews, when we attempted to contact each of the 32 non-emailed companies.

During the first week of the questionnaire distribution we sent a pre-questionnaire letter describing our project. This included a brief description of whom we represented, as well as our project goals. After we finalized our questionnaire, we sent our second cover letter with the questionnaire attached. Within the cover letter we reminded companies of our project and the various methods they could use to respond. We provided as many methods for response as possible, which helped us obtain a higher response rate than

using just any one method. The methods we included for companies to fill out and return the survey were fax, mail, email (attachment), and online webform.

The fax, postal mail, and email response methods were all possible using the attached Word document, while the online questionnaire entailed an internet hyperlink to the webform. We anticipated that the online webform method would boost our response rate through its simplicity in terms of filling it out and sending it back. The webform was created using a program called Visual Basic .Net. It was designed to be identical in format to the attached questionnaire, with the biggest difference being that it was an interactive webpage utilizing radio buttons and check boxes. We felt that there was a critical advantage in an online questionnaire, in that it was linked to a database, which automatically processed the responses whenever a finished questionnaire was submitted. The online version of our questionnaire was also advantageous in that it was interactive, easy to use and very time efficient. Through the automatic relay of responses into a spreadsheet, we also reduced the response tally and data entry time.

A week after we sent out our cover letter with the attached questionnaire we emailed a follow up cover letter with the same attached questionnaire and URL link to remind member companies that their responses would be used to help change the FPA Code of Practice to make it more applicable and financially useful to them. We sent out one final reminder a week following the previous reminder containing the same information.

Appendix E – Questionnaire Content

Section I: Demographics (Optional)

Your responses to this section will not be used to identify your individual company and will be used solely as organisational material for this project.

- 1) How many people does your company employ in the fire protection/life safety industry? **(Please circle one)**
- | | |
|-----------------------|------------------------|
| a. Less than 5 | d. Between 101 and 500 |
| b. Between 5 and 20 | e. More than 500 |
| c. Between 21 and 100 | |

- 2) What classification does your company fall under in terms of FPA Australia membership?
- Corporate Member
 - Corporate Gold
 - Corporate Silver
 - Corporate Platinum

- 3) What states/territories does your company operate in? **(Please circle all that apply)**
- | | |
|-----------------------|--------------------------------|
| a. Northern Territory | e. Victoria |
| b. Queensland | f. New South Wales |
| c. Tasmania | g. South Australia |
| d. Western Australia | h. Australia Capital Territory |

- 4) How many locations (branches) does your company have?
- | | | |
|------|--------------------|-------------------|
| a. 1 | b. Between 2 and 5 | c. Greater than 5 |
|------|--------------------|-------------------|

Section II: Education and Communication Tools

This information will be used to determine the existence and relevance of different modes of communication. Please answer these questions even if your company does not employ the specific tool.

- 1) What methods does your company use to educate/inform its employees (i.e. new policies or regulations)? **(Please circle all that apply)**

Paper-based

- Memos
- Newsletters
- Journals
- Pamphlets/Bulletins

Person-based

- Conferences (>1 day)
- Seminars (<1 day)
- Educational Courses

Internet-based

- E-mail
- Online-Seminars
- Online-Journals
- Online-Newsletters

Other Methods: _____

- 2) Of the **Paper-based** methods, please place them in order from **1-4** based on which forms of education/information dissemination work best for your company. (**1** for **least effective**, and **4** for **most effective**)

_____ Newsletters	_____ Journals
_____ Pamphlets/Bulletins	_____ Memos/Informal Notes

8) What methods does your company use to educate employees on the **FPA Australia Code of Practice**? (Please circle all that apply)

Paper-based	Person-based
1. Memos	5. Conferences (>1 day)
2. Newsletters	6. Seminars (<1 day)
3. Journals	7. Courses
4. Pamphlets/Bulletins	
Internet-based	
8. E-mail	
9. Online-Seminars	
10. Online-Journals	
11. Online-Newsletters	

Other Methods: _____

9) Have there been or are there any barriers to implementing the FPA Australia Code of Practice ?	Yes	No
--	-----	----

10) If so, what were or are some of these barriers (eg: monetary, time, unclear specifications, etc)?

11) If your company was able to overcome any of these barriers please briefly describe how it did so:

12) Are there any changes that could be made to the FPA Australia Code of Practice to make it more applicable to your company?	Yes	No
---	-----	----

13) If so could you please list some of these changes below?

Section IV: Client Information

The information gained from the responses to questions in this section will be used to determine if member companies are aware of the tools the **FPA Australia** has developed for client education and whether members are using them.

1) Is your company aware of the Code compliant logos that FPA Australia has provided in the Code of Practice handbook (page 16)?	Yes	No
2) If so, does your company use the Code compliant logos on its publications or at its place of operation?	Yes	No
3) Is your company aware of the Code compliant pamphlets the FPA Australia has developed for distribution to clients?	Yes	No
4) Does your company distribute the Code compliant pamphlets to prospective clients to show what it means to be Code compliant?	Yes	No
5) Has your company developed any alternative methods of client education on Code Compliance? (If so, inclusion of these documents would be appreciated. Email with an attachment, or physical mailing to included address would be appreciated)	Yes	No

6)	Have your clients ever required FPA Australia Code of Practice compliance in a formal tender document?	Yes	No
7)	Finally, we would like to consult consumers to see if they bias their business towards FPA Australia Code complaint companies. We would appreciate it if you could supply us with a few of your clients' contact information below: (optional)		
(Company/Individual Name, Telephone #, Email, City, State)			
<hr/> <hr/>			
(Company/Individual Name, Telephone #, Email, City, State)			
<hr/> <hr/>			
(Company/Individual Name, Telephone #, Email, City, State)			
<hr/> <hr/>			
(Company/Individual Name, Telephone #, Email, City, State)			
<hr/> <hr/>			
CONFIDENTIALITY GARUNTEED. THANK YOU!			

Appendix F – Questionnaire Results / Distribution of Corporate Members

Questionnaire Results

Total Response = 51 out of 265		35 Corporate	13 Silver	2 Gold	1 Platinum	51 Total	
Section I - Demographics		Corporate	Silver	Gold	Platinum	Total	WGTD AVG
What Classification does your company fall under in terms of FPA Australia Membership?		66.67%	23.53%	3.92%	1.96%	100.00%	51.9%
How many people does your company employ in the fire protection / life safety industry?	Less than 5	62.86%	23.08%	50.00%	0.00%	50.98%	51.0%
	Between 5 and 20	28.57%	46.15%	0.00%	0.00%	31.37%	31.4%
	Between 21 and 100	8.57%	30.77%	50.00%	0.00%	15.69%	15.7%
	Between 101 and 500	0.00%	0.00%	0.00%	0.00%	0.00%	0.0%
	More than 500	0.00%	0.00%	0.00%	100.00%	1.96%	2.0%
What state/territories does your company operate in? (Please check all that apply)	Northern Territory	8.60%	0.00%	100.00%	100.00%	11.80%	11.8%
	Queensland	20.00%	7.70%	100.00%	100.00%	21.60%	21.6%
	Tasmania	14.30%	23.10%	100.00%	100.00%	21.60%	21.6%
	Australia Capital Territory	5.70%	15.40%	100.00%	100.00%	13.70%	13.7%
	Victoria	40.00%	23.10%	100.00%	100.00%	39.20%	39.2%
	New South Wales	48.60%	59.20%	100.00%	100.00%	56.90%	54.3%
	Western Australia	28.60%	7.70%	100.00%	100.00%	27.50%	27.5%
	South Australia	14.30%	23.10%	100.00%	100.00%	21.60%	21.6%
							0.0%
How many locations (branches) does your company have?	1	80.00%	61.54%	50.00%	0.00%	72.55%	72.5%
	Between 2 and 5	20.00%	30.77%	50.00%	0.00%	23.53%	23.5%
	Greater than 5	0.00%	7.69%	0.00%	100.00%	3.92%	3.9%
Section II - Training/Education							0.0%
		Corporate	Silver	Gold	Platinum	Total AVG	
Does your company have a department or an individual that educates/disseminates information to employees ? (Policies, regulations, codes of practice)		Yes					

		62.90%	76.90%	50%	100%	66.70%	66.7%
		No					
		37.10%	23.10%	50%	0%	33.30%	33.3%
What methods does your company use to educate/inform its employees (i.e. new policies or regulations)? [Percentage of Responses]							
		Paper Based					
Memos		71.40%	84.60%	100%	0%	74.50%	74.5%
Newsletters		28.60%	5%	50%	0%	31.40%	22.9%
Journals		14.30%	30.80%	50%	0%	19.60%	19.6%
Pamphlets/Bulletins		28.60%	61.50%	100%	100%	41.20%	41.2%
		Person Based					
Conferences (<1 day)		31.40%	23.10%	50%	100%	31.40%	31.4%
Seminars (<1 day)		31.40%	46.20%	50%	100%	37.30%	37.2%
Educational Courses		40.00%	53.80%	50%	100%	45.10%	45.1%
		Internet Based					
E-Mail		65.70%	69.20%	100%	100%	68.60%	68.6%
Online-Seminars		2.90%	0.00%	0%	0%	2.00%	2.0%
Online-Journals		0.00%	15.40%	50%	0%	5.90%	5.9%
Online-Newsletters		5.70%	23.10%	50%	0%	11.80%	11.8%
		Corporate	Silver	Gold	Platinum	Total	
Of the Paper-based methods, please place them in order from 1-4 based on which forms of education/information dissemination work best for your company. (1 for least effective, and 4 for most effective) [Average Response]							#VALUE!
		Pamphlet/Bulletin					
		2.2	2.5	2.0	4.0	2.3	230.4%
		Memos/Informal Notes					#VALUE!
		2.2	2.5	2.5	3.0	3.0	230.4%
		Newsletters					#VALUE!
		2.32	1.5	2	2	2.28	209.2%
		Journals					#VALUE!
		2.2	3.5	2.5	1.0	2.3	249.9%
Of the Person-based methods please place them in order from 1-3 based on which forms of education/information dissemination work best for your company. (1 for least effective, and 3 for most effective) [Avg. Response]							#VALUE!
		Conferences (>1 Day)					
		1.9	1.0	2.0	3.0	1.8	168.2%

		Seminars (<1 day)					#VALUE!
		1.8	2.0	1.5	3.0	1.8	183.5%
		Educational Courses					#VALUE!
		1.7	2.5	2.0	2.0	1.8	192.2%
Of the Internet-based methods, please place them in order from 1-4 based on which forms of education/information dissemination work best for your company. (1 for least effective, and 4 for most effective) [Avg. Response]		Online-Newsletters (weekly, monthly)					#VALUE!
		1.7	2.5	2.0	4.0	1.8	196.1%
		Online-Journals (quarterly, annual)					#VALUE!
		2.0	2.4	2.0	2.0	2.0	206.9%
		Online-Seminars					#VALUE!
		2.0	2.2	2.0	1.0	2.0	201.9%
		Email					#VALUE!
		2.2	2.615	4	3	2.36	239.2%
Of the different methods, please place them in order from 1-3 based on which forms of education/information dissemination work best for your company. (1 for least effective, and 3 for most effective)		Paper-Based					#VALUE!
		1.0	2.2	2.0	2.0	2.0	137.2%
		Internet-Based					#VALUE!
		2.0	1.8	1.9	2.0	1.8	194.5%
		People-Based					#VALUE!
		2.0	1.9	3.0	3.0	2.0	201.8%
Section III - Implementation							0.0%
Is your company aware of the Code compliant logos that FPA Australia?		Yes					#VALUE!
		88.60%	100%	100%	100%	92.20%	92.2%
		No					#VALUE!
		11.40%	0%	0%	0%	7.80%	7.8%

If so, does your company use the Code compliant logos on its publications or at its place of operation?		Yes					#VALUE!
		51.40%	84.60%	50%	0%	58.80%	58.8%
		No					#VALUE!
		48.60%	15.40%	50%	100%	41.20%	41.2%
Is your company aware of the Code compliant pamphlets the FPA Australia has developed for distribution to clients?		Yes					#VALUE!
		37.10%	53.80%	100%	0%	43.10%	43.1%
		No					#VALUE!
		62.90%	46.20%	0%	100%	36.90%	56.9%
Does your company distribute the Code compliant pamphlets to prospective clients to show what it means to be Code compliant?		Yes					#VALUE!
		11.40%	46.20%	0%	0%	19.60%	19.6%
		No					#VALUE!
		88.60%	53.80%	100%	100%	80.40%	80.4%
Has your company developed any alternative methods of client education on code compliance?		Yes					#VALUE!
		8.60%	30.80%	0%	0%	13.70%	13.8%
		No					#VALUE!
		91.40%	69.20%	100%	100%	86.30%	86.2%
Have your clients ever required FPA Australia Code of Practice compliance in a formal tender document?		Yes					#VALUE!
		17.10%	15.40%	0%	0%	15.70%	15.7%
		No					#VALUE!
		82.90%	84.60%	100%	100%	84.30%	84.3%
To what extent did implementing the FPA Australia Code of Practice require a departure from you past business practices?	1(Low) - 5(High)	1.543	1.385	1	1	1.471	147.1%
							0.0%
To what extent does the Code of Practice apply to your business goals?	1(Low) - 5(High)	3.829	3.615	2.5	5	3.745	374.5%
							0.0%
To what extent does the Code of Practice benefit your company? (i.e. financially, legally, etc.)	1(Low) - 5(High)	3.143	2.462	1.5	5	2.941	294.1%
							0.0%

How would you categorize the priority of the Code of Practice in relation to your company?	1(Low) - 5(High)	3.333	3.385	2.5	5	3.373	334.6%
							0.0%
Within your company are human or monetary resources allocated for implementation of the Code of Practice?	Yes	48.6%	61.5%	0.0%	100.0%	51.0%	51.0%
	No	51.4%	38.5%	100.0%	0.0%	49.0%	49.0%
							0.0%
Have you given feedback or advice to FPA Australia on the Code of Practice?	Yes	25.7%	30.8%	0.0%	100.0%	27.5%	27.4%
	No	74.3%	69.2%	100.0%	0.0%	72.5%	72.6%
							0.0%
Did you know the Code of Practice was reviewed on an annual basis?	Yes	37.1%	38.5%	50.0%	100.0%	39.2%	39.2%
	No	62.9%	61.5%	50.0%	0.0%	60.8%	60.8%
							0.0%
What methods does your company use to educate employees on the FPA Code of Practice? (please check all that apply)							#VALUE!
	Paper Based						
	Memos	54.3%	69.2%	0.0%	100.0%	56.9%	56.9%
	Newsletters	11.4%	46.2%	0.0%	100.0%	21.6%	21.6%
	Journals	8.6%	15.4%	0.0%	0.0%	9.8%	9.8%
	Pamphlets/Bulletins	17.1%	53.8%	0.0%	100.0%	27.5%	27.4%
	Person Based						#VALUE!
	Conferences (>1 day)	14.3%	15.4%	0.0%	0.0%	13.7%	13.7%
	Seminars (<1 day)	22.9%	7.7%	0.0%	100.0%	19.6%	19.6%
	Educational Courses	22.9%	30.8%	0.0%	100.0%	25.5%	25.5%
	Internet Based						#VALUE!
	E-Mail	42.9%	53.8%	0.0%	100.0%	45.1%	45.1%
	Online-Seminars	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Online-Journals	0.0%	7.7%	0.0%	0.0%	2.0%	2.0%
	Online-Newsletters	0.0%	15.4%	0.0%	0.0%	3.9%	3.9%
Have there been or are there any barriers to implementing the FPA Code of Practice?	Yes	14.3%	23.1%	50.0%	0.0%	17.6%	17.7%
	No	85.7%	76.9%	50.0%	100.0%	82.4%	82.3%

Are there any changes that could be made to the FPA Australia Code of Practice to make it more applicable to your company?							
	Yes	14.3%	53.8%	50.0%	0.0%	25.5%	25.5%
	No	85.7%	46.2%	50.0%	100.0%	74.5%	74.5%
Does your company distribute FPA Australia material to your employees? Materials include any pamphlets, bulletins and/or newsletters that are published by FPA Australia.							#VALUE!
	Yes	77.10%	92.30%	100%	100%	82.40%	82.3%
	No						#VALUE!
		22.90%	7.70%	0%	0%	17.60%	17.7%
Does your company educate it's employees on the FPA Australia Code of Practice	Yes	11.43%	7.60%	50%	0%	12.00%	12.0%
	No	88.57%	94.40%	50%	100%	88.00%	
SECTION IV - Client Information = Abandoned, not enough response							

Table 1: Tabulated Response from all questionnaire respondents.

Distribution of Corporate Membership

Location of FPA Australia Corporate Membership

State	No. of corporate members	Percentage of Corporate Membership
Australian Capital Territory	2	0.67%
New South Wales	114	38.38%
Queensland	36	12.12%
South Australia	17	5.72%
Tasmania	6	2.02%
Victoria	96	32.32%
Western Australia	26	8.75%

Table 2: Location of FPA Australia Corporate Membership

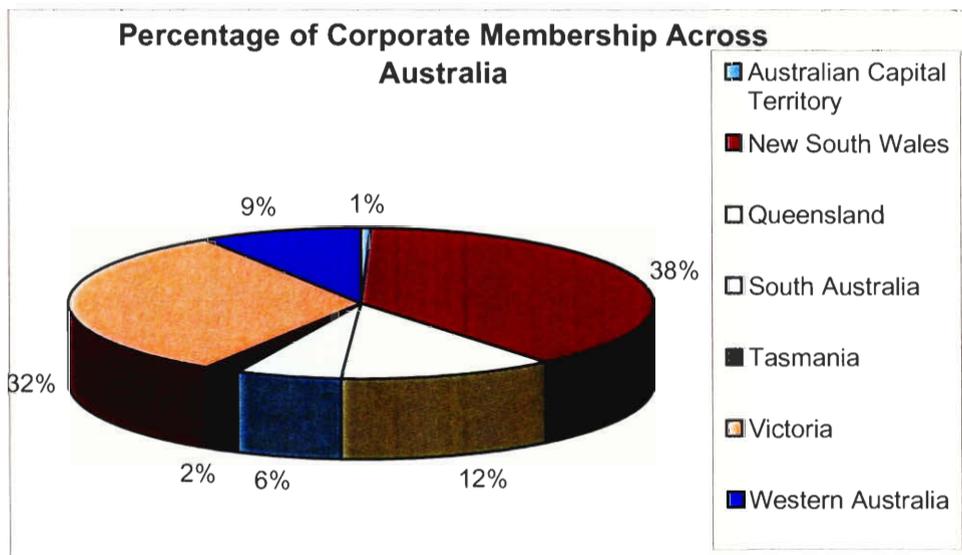


Figure 8: Percentage of Corporate Membership Across Australia

Appendix G – Response Analysis (From Questionnaire)

In order to develop our proposed auditing system, we collected data from the corporate membership, clients of the corporate membership, and professional auditors. Table 3 illustrates the response rate we received from each of our collection methods:

Methods of data Distribution / Collection

	Number Distributed (Attempted)	Number Respondents	Membership Ranges
Pre - Test Interview	5	3	(2) Corporate/Corporate Gold
Survey/Questionnaire	265	51	All
Member Interview	52	14	All
Client Interview	5	4	None (Clients of Members)
Professional w/in Auditing Field	4	4	None (outside sources)

Table 3: Methods of data distribution and collection

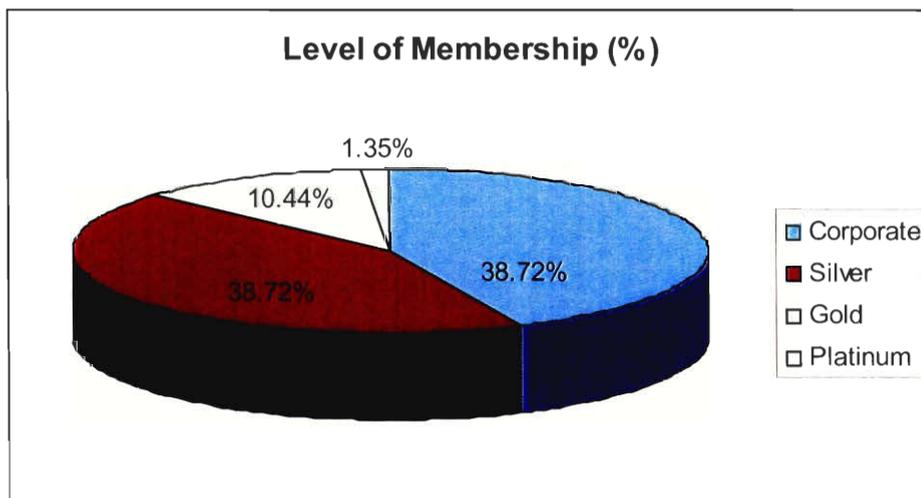


Figure 9: Corporate Membership classification breakdown. The majority of companies are within the two smaller membership levels.

As seen in Figure 9, the majority of the membership (approximately 78 %) are comprised of Corporate Member and Corporate Silver members. The response results obtained reflect this membership distribution, as there was a smaller overall response rate from the Corporate Gold and Corporate Platinum levels, as seen in Figure 10.

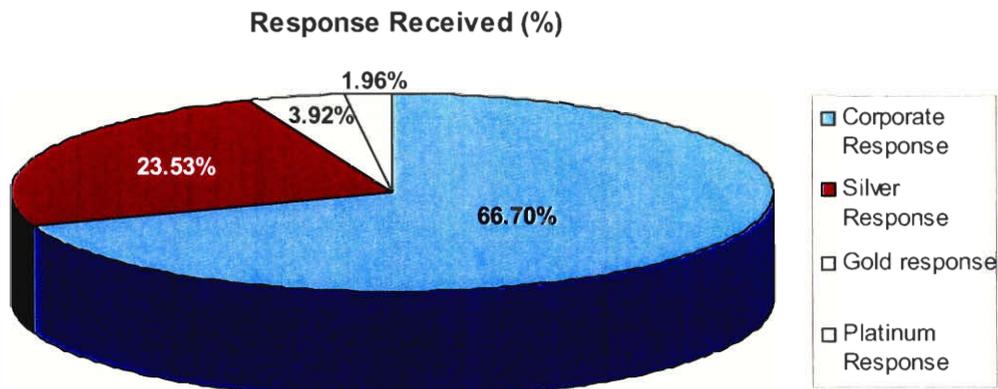


Figure 10: Response according to membership classification. An overwhelming majority of responses came from the Corporate Member level, which was weighted in the results.

The method with the largest total response and our primary method for collecting data on education /training and implementation was surveying. As described within our Methodology section, we provided multiple options for respondents to return the questionnaire. Figure 11 categorises responses based on the method used to return the questionnaire.

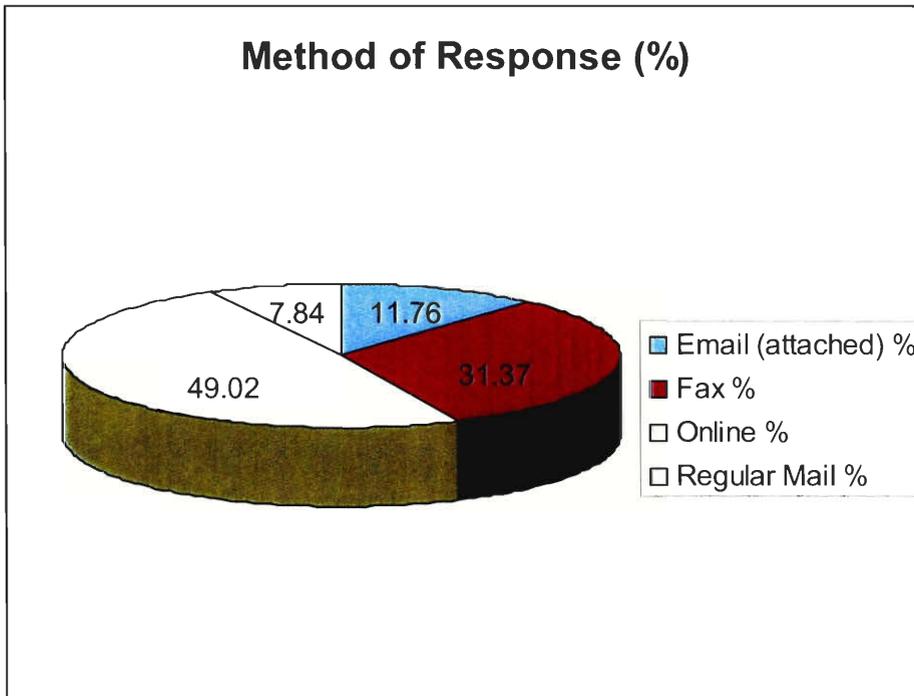


Figure 11: Method of response for survey. The webform was the most common form of response (49.0%)

The form with the highest response to our survey, as seen in Figure 2, was the online webform. It was developed using Visual Basic, and is described within our Methodology Section. Though analysis of these results do not develop our project goals, the information gathered may be useful for future research conducted on behalf of the FPA Australia.

Appendix H – Corporate Membership Interviews

Corporate Membership Interview Agenda

Company Name: _____

Interviewee: _____

Company Membership: _____

Date: _____

Time: _____

Interviewer: _____

Introduction (who we are, what we are doing to improve code compliance)

- We are a group of 3 college students from Worcester Polytechnic Institute independently conducting an evaluation of the Fire Protection Association Australia code of practice in order to propose an auditing system. This will help to reduce the need for government legislation and provide a marketable angle to consumers of member services.
- 5 minute interview

Purpose:

- To get feedback on proposed FPA Australia auditing system; to revise auditing system accordingly, to learn about how your company ensures code compliance.

Questions:

- *Contractor (active services)? Consultant (passive services)?*

- *What type of business regulations and/or codes do you need to maintain compliance with?*

- *How do you ensure that you are compliant?*

- *What is done about a consumer's compliant? (System or common sense)*

- Follow up questions...

- o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*

Proposed System:

- A FPA Australia auditor checks up on $\approx 20\%$ of corporate membership annually, resulting in each company being audited at least once every five years. Auditor ensures compliance with FPA Australia Code of Practice through review of company documents, policies, etc, which demonstrate compliance with other codes and regulations. Possibly, the FPA Australia may require that an independent auditing company be used. Auditor may also check into past work history to ensure consumers are satisfied with their work.
- *For our proposed system, would you agree to adhere to this auditing procedure?*

- *Is there anything else you would expect from a quality assurance audit?*

- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*

- *Do you have any other comments or questions?*

Corporate Membership Interview Summaries

Phone Interview Report

Company Membership: Member

Date: 06.04.04

Time: 11:45-11:55 am

Interviewer: Ryan Casey

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Contracting
- *What type of business regulations and/or codes do you need to maintain compliance with?*
Australian Standards, etc
- *How do you ensure that you are compliant?*
Use forms which comply with relevant standards
- *What is done about a consumer's complaint? (System or common sense)*
Case-by-case basis (common sense)
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
Yes, though dependent on price and distance

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
Yes, though should not be unnecessarily expensive or time-consuming
- *Is there anything else you would expect from a quality assurance audit?*
No
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
No
- *Do you have any other comments or questions?*
FPA Australia need to be more proactive and provide more of a benefit to membership

Phone Interview Report

Company Membership: Silver

Date: 16.04.04

Time: 10:04-10:10am

Interviewer: Ryan Casey

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Contractor
- *What type of business regulations and/or codes do you need to maintain compliance with?*
BCA, Standards Australia
- *How do you ensure that you are compliant?*
Safe-work methods (common-sense procedures)
- *What is done about a consumer's complaint? (System or common sense)*
Case-by-case basis
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
Yes

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
Yes, as of right now, the industry is very "shoddy" and unregulated! Need to enforce basic level of quality
- *Is there anything else you would expect from a quality assurance audit?*
No
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
Yes
- *Do you have any other comments or questions?*
The FPA Australia needs to provide more service to its members; auditing procedure should provide some benefit

Phone Interview Report

Company Membership: Member

Date: 06.04.04

Time: 10:15-10:25 am

Interviewer: Ryan Casey

Questions:

- *Contractor (active services)? Consultant (passive services)?*

Contractor

- *What type of business regulations and/or codes do you need to maintain compliance with?*
 - Fire Sprinkler Regulations, BAC, etc**
- *How do you ensure that you are compliant?*
 - New company → uses documents adapted from other companies; utilises third party assessment company which verifies work is compliant with relevant regulations**
- *What is done about a consumer's compliant? (System or common sense)*
 - Reporting System in place**
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*

Yes

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
 - Yes, since we have a 3rd party auditor already.**
- *Is there anything else you would expect from a quality assurance audit?*
 - Auditor should be accredited by reputable organization**
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
 - Yes, the compliance systems in Australia are more lax than those found in Europe (LTC).**
- *Do you have any other comments or questions?*
 - none-**

Phone Interview Report

Company Membership: Member

Date: 06.04.04

Time: 11:10-11:20 am

Interviewer: Ryan Casey

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Contractor
- *What type of business regulations and/or codes do you need to maintain compliance with?*
Australian Standards, BAC, Environmental Planning Act
- *How do you ensure that you are compliant?*
Checklists that conform to standards listed above
- *What is done about a consumer's complaint? (System or common sense)*
Case-by-case basis (common sense)
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
Yes

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
Tentatively yes, would need to see details before committing
- *Is there anything else you would expect from a quality assurance audit?*
Feedback to rectify shortcomings; benefit from successfully complying
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
**No, clients are not interested in quality (more expensive) service!
Want the least expensive fire protection that complies with minimum standards**
- *Do you have any other comments or questions?*
Wants FPA Australia to take active role in helping members obtain fire building insurance! Also would like to see marketable benefit from compliance

Phone Interview Report

Company Membership: Platinum

Date: April 16, 2004

Time: 4:14

Interviewer: Adam Daniels

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Consultant

- *What type of business regulations and/or codes do you need to maintain compliance with?*
FPA Australia Code of Practice, BCA (national Australian Fire Code), national Building Codes
- *How do you ensure that you are compliant?*
Quality control, external auditing, registered training programs, they have a board set up to conduct these audits
- *What is done about a consumer's complaint? (System or common sense)*
They have an independent system to deal with breaches of contract
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
No, under no circumstances. The standards that they are held to are higher than those of the FPA Australia Code of Practice

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?* **Not unless, he knew the credentials of the person who would conduct the audit. If it was an FPA Australia member, hesitant, but if it was done by independent auditing, absolutely.**
- *Is there anything else you would expect from a quality assurance audit?*
no
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
No, again only by another auditor, the standards they are held to are much higher and stricter, and they have their own auditing procedure
- *Do you have any other comments or questions?*
none

Phone Interview Report

Company Membership: Corporate Member

Date: April 13, 2004

Time: 1:05-1:15 pm

Interviewer: Todd Sullivan

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Consultant
- *What type of business regulations and/or codes do you need to maintain compliance with?*
BAC, Safety Acts, Australian Standards
- *How do you ensure that you are compliant?*
Self-auditing, I train the people below me to perform self-audits.
- *What is done about a consumer's complaint? (System or common sense)*
No complaints
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
Wouldn't attend.

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
Wouldn't agree, we are too small of a company for it.
- *Is there anything else you would expect from a quality assurance audit?*
No
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
Yes on other contractors that are used as representatives, such as the one in South Australia, which does the majority of criminal activities.
- *Do you have any other comments or questions?*
Haven't been a member long enough, only been one for 3-4 weeks.

Phone Interview Report

Company Membership: Corporate

Date: April 14, 2004

Time: 4:41

Interviewer: Adam Daniels

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Contractor
- *What type of business regulations and/or codes do you need to maintain compliance with?*
FPA Australia Code of Practice, BCA (national Australian Fire Code)
- *How do you ensure that you are compliant?*
Just do the work properly the first time, no active compliant measures taken. Just check and recheck work
- *What is done about a consumer's complaint? (System or common sense)*
Worst case the consumer can report to the building commission of Victoria and complain
Otherwise deal it case by case.
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
Yes would be willing to participate in it

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?* **YES**
- *Is there anything else you would expect from a quality assurance audit?*
More checks on individuals with less experience, perhaps new starting individuals in the field. Someone with more experience expects simply to check up on less frequently
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
Yes it's a good idea. He has been told that you need to do continuing professional development, and a technical audit is certainly one way to do it
- *Do you have any other comments or questions?*
none

Phone Interview Report

Company Membership: Gold

Date: 15.04.04

Time: 2:13-2:25

Interviewer: Ryan Casey

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Contractor – Fire Door Installation
- *What type of business regulations and/or codes do you need to maintain compliance with?*
BCA, Standards Australia
- *How do you ensure that you are compliant?*
Staying informed of the most current regulations → member of committee in Standards Australia
- *What is done about a consumer's complaint? (System or common sense)*
Common sense
- Follow up questions...
 - *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
No, too time-consuming

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
No, would need more information before agreeing to anything
- *Is there anything else you would expect from a quality assurance audit?*
No
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
Possibly, if it would help level the playing field
- *Do you have any other comments or questions?*
The auditing system needs to be common sense. Also, there must be a benefit to it!

Phone Interview Report

Company Membership: Corporate Member

Date: April 16, 2004

Time: 11:00 am – 11:15

Interviewer: Todd Sullivan

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Contractor
- *What type of business regulations and/or codes do you need to maintain compliance with?*
BAC, Australian Standards, ASI 1530
- *How do you ensure that you are compliant?*
Go to sites daily to perform visual inspections.
- *What is done about a consumer's complaint? (System or common sense)*
Go back and check work again.
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
No

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
No, we already have procedures in place, and the manufacturers test the products we install for quality. Also we are a very small company and it wouldn't help us.
- *Is there anything else you would expect from a quality assurance audit?*
Supply test certificates.
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
Yes, too many cowboys doing poor work.
- *Do you have any other comments or questions?*
No.

Phone Interview Report

Company Membership: Silver

Date: 15.04.04

Time: 3:01-3:10pm

Interviewer: Ryan Casey

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Contractor → sprinkler supply
- *What type of business regulations and/or codes do you need to maintain compliance with?*
None that aware of
- *How do you ensure that you are compliant?*
Common sense
- *What is done about a consumer's complaint? (System or common sense)*
System → complaint recorded in records and addressed accordingly
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
Yes

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
Yes; a uniform regulatory method is necessary since each state within Australia has its own regulations. Right now, many dishonest or unqualified "plumbers" working in this industry. Should stress that fire protection is a life industry.
- *Is there anything else you would expect from a quality assurance audit?*
No
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
Yes; necessary to catch sloppiness in current work of many contractors
- *Do you have any other comments or questions?*
Auditing system must provide tangible benefit!

Phone Interview Report

Company Membership: Corporate Member

Date: April 14, 2004

Time: 10:55 – 11:05 am

Interviewer: Todd Sullivan

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Consultant
- *What type of business regulations and/or codes do you need to maintain compliance with?*
BAC, NFPA, Australian Standards
- *How do you ensure that you are compliant?*
No formal system, we use the manuals and posted updates, rely on FPAA for updates.
- *What is done about a consumer's compliant? (System or common sense)*
Common sense approach, consumers don't hesitate to let us know
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
Yes, definitely only would depend on location, would need to be in the state.

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
Yes
- *Is there anything else you would expect from a quality assurance audit?*
Feedback on ways to improve service
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
Yes, there wouldn't be any problems with that.
- *Do you have any other comments or questions?*
None

Phone Interview Report

Company Membership: Corporate Member

Date: April 14, 2004

Time: 11:15-11:25 am

Interviewer: Todd Sullivan

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Consultant
- *What type of business regulations and/or codes do you need to maintain compliance with?*
Australian Standards, FPA Code of Practice
- *How do you ensure that you are compliant?*
Built into policies to follow the standards.
- *What is done about a consumer's compliant? (System or common sense)*
Formal system with steps to follow, but usually ends up with one person since we are a small company.
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
Would depend on the location of program and relation of program to my business.

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
Yeah possibly, I'd have a few more questions and would need more details before I totally agreed.
- *Is there anything else you would expect from a quality assurance audit?*
No
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
No wouldn't apply to my business.
- *Do you have any other comments or questions?*
None

Phone Interview Report

Company Membership: Silver

Date: 16.04.04

Time: 11:14-11:22am

Interviewer: Ryan Casey

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Contractor
- *What type of business regulations and/or codes do you need to maintain compliance with?*
BCA, Standards Australia
- *How do you ensure that you are compliant?*
Use of third party auditor – Linked Business Concepts – which is a web-based company that can perform compliance audits
- *What is done about a consumer's complaint? (System or common sense)*
Auditing company makes it easy to address concerns by highlighting specific fault
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
Yes

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
No, currently happy with Linked Business Concepts as ensuring compliance.
- *Is there anything else you would expect from a quality assurance audit?*
No
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
Possibly, if it would help reduce poor workplace practice in the event that proposed system fails...
- *Do you have any other comments or questions?*
Would like to be kept up to date on legislative changes that are in progress. FPA Australia should be more proactive in delivering this information.

Phone Interview Report

Company Membership: Gold

Date: 15.04.04

Time: 11:15-11:30am

Interviewer: Ryan Casey

Questions:

- *Contractor (active services)? Consultant (passive services)?*
Contractor – emergency lighting manufacturer
- *What type of business regulations and/or codes do you need to maintain compliance with?*
Australian Standards, BAC
- *How do you ensure that you are compliant?*
Third party inspection and certification – clients require this!
- *What is done about a consumer's complaint? (System or common sense)*
System: first the consumer is provided information on the manufacturing process, if there is still a problem they can contact the company via a service number. Also, there are complaint service groups in most states.
- Follow up questions...
 - o *If you don't have any program to ensure code compliance would you be willing to participate in a half-day or less Code awareness seminar if the FPA Australia offered one?*
No – it is currently irrelevant to type of business work performed

Proposed System:

- *For our proposed system, would you agree to adhere to this auditing procedure?*
Yes
- *Is there anything else you would expect from a quality assurance audit?*
No
- *Would you want the FPA Australia to one day perform a more technical auditing procedure?*
Yes, if proposed auditing system reveals widespread non-compliance
- *Do you have any other comments or questions?*
Need a benefit from auditing system to make it worthwhile!

Appendix I - Corporate Membership Client Interviews

Corporate Membership Client Interview Summaries

Interview of Corporate Gold Member Client

Date: March 23, 2004

Location: Crown Casino
8 Whiteman St.
Southbank, Victoria 3006, Australia

Time: 11:40 am – 12:15 pm

Interviewers: Ryan Casey, Todd Sullivan

Interviewees: Rodney Sinclair, Manager of Fire and Safety Systems

Summary:

Interview was conducted to find out if Crown Casino as a consumer knew about the FPA Australia Code of Practice. If so, do they bias their business towards FPA Australia Code-complaint companies? We were also given a tour of the casino's fire system.

Minutes:

- Introduction:
 - o Provided Mr. Sinclair with a brief description of our relationship with the FPA Australia and the overall project at hand.
 - o Explained how we were referred to them by Entire Fire Protection, and explained why we were meeting with them even though they are not FPA Australia members.

- Conducting the Interview:
 - o Are you aware of the FPA Australia Code of Practice?
 - Mr. Sinclair did not have any prior knowledge about the FPA Australia Code of Practice.
 - o After a brief explanation about the Code of Practice. Does the Code of Practice sound like anything Crown Casino would ask their contractors to be compliant with?
 - Mr. Sinclair explained that it did but he would need a more in depth explanation of the Code and how it was monitored.
 - o Right now the Code of Practice doesn't have an effective auditing system, for you to put any faith into it would it need an effective auditing system?
 - Mr. Sinclair told us that it would definitely need an effective auditing system for him to bias business towards it, without it there is nothing supporting claims of high integrity and quality.
 - o What are some of the things you look for in a contractor?
 - Mr. Sinclair told us they check into past work, recommendations, and past personal experience with the contractors. Also due to the size of the casino a contractor would have to be a larger company not a one or tow man operation.
 - o What do you think would be the best way to market the Code of Practice to consumers, such as the Crown Casino?

- Mr. Sinclair suggested using advertisements in reputable fire safety journals
 - Would the FPA Australia Code of Practice being approved by a higher standards organization (i.e. ACCC or SAA) make Crown Casino more inclined to do business with code complaint companies?
- Mr. Sinclair said it would because this act as support to the value of the Code.

Conclusion:

This interview in some ways went the way we expected to; in regards that Crown Casino had never heard of the FPA Australia Code of Practice. This interview helped by giving us an idea on the best way to market the Code of Practice to consumers, which would increase the benefit to contractors and other FPA Australia members.

Interview of Corporate Member Client

Date: April 23, 2004

Location: Department of Human Services
120 Spencer St.
Melbourne, Victoria 3000, Australia

Time: 10:00 am – 11:00 am

Interviewers: Adam Daniels, Todd Sullivan

Interviewees: Hon Wong - Fire Services Manager and Richard Pocklington – Manager
COMAC services

Intorduction:

- Introduced ourselves and explained relationship with FPA Australia.
- Gave a brief overview of our project and why we were meeting with him.

Minutes:

- General Questions:
 - **Are you aware of the FPA Australia and its Code of Practice?**
 - Mr. Wong was aware of both the FPA Australia and its Code of Practice.
 - **Why Does DHS only use Code compliant companies?**
 - Mr. Wong explained that since DHS is a government organization it could not endorse or condone any association.
 - **How did you become aware of the Code of Practice?**
 - Mr. Wong stated companies we were using that performed work we liked were Code compliant.
 - **Are there any things you think the Code of Practice needs to be improved on?**
 - The Code needs a training program to help standardize it, maybe something offered through a university.
 - Existing members should take a refresher course
 - An audit program to check into compliance and keep standardization.
 - Need procedures on control wiring
 - Register of membership
 - Would be easier to find Code-compliant companies
 - Should have company, and employees of the company with their qualifications
 - Updated every 6 months
 - Try to get the Code accredited by a higher organization.
 - **Does DHS have an auditing procedure to check on contractors?**
 - Contractors must fill out logbook that is kept onsite.
 - If an inspection is missed DHS sends a reminder email.
 - **What methods do you think will help increase client awareness of the FPA Australia Code of Practice?**

- Seminars for the clients discussing the benefits and improved technical services.

Conclusion:

Mr. Wong and Mr. Pocklington helped to give us some ideas on how to market the Code of Practice and the membership to clients.

Interview of Corporate Gold Member Client

Date: March 24, 2004

Location: Lincolne Scott
121 King Street
Melbourne, Victoria 3000, Australia

Time: 8:40 am – 9:00 am

Interviewers: Adam Daniels, Todd Sullivan

Interviewees: Andrew Oxley, Consulting Engineer; Marcello Arbaci, Consulting Engineer

Summary:

Interview was conducted to find out if Lincolne Scott as a consulting firm knew about the FPA Australia Code of Practice. If so, do they bias their business towards FPA Australia Code complaint companies?

Minutes:

- Introduction:
 - o Provided Mr. Oxley and Mr. Arbaci with a brief description of our relationship with the FPA Australia and the overall project at hand.
 - o Explained how we were referred to them by Entire Fire Protection, and explained why we were meeting with them even though they are not FPA Australia members.

- Conducting the Interview:
 - o Are you aware of the FPA Australia Code of Practice?
 - Neither Mr. Oxley nor Mr. Arbaci had any prior knowledge about the FPA Australia Code of Practice.
 - o After a brief explanation about the Code of Practice. Does the Code of Practice sound like anything Lincolne Scott would ask their contractors to be compliant with?
 - Mr. Oxley explained that it did but we need to be first reviewed by the company as a whole, not just by one person.
 - o Right now the Code of Practice doesn't have an effective auditing system, for you to put any faith into it would it need an effective auditing system?
 - Mr. Oxley told us that it would definitely need an effective auditing system for them to tender work based on compliancy to the code, just as he would expect with any other code of practice.
 - o What are some of the things you look for in a contractor?
 - Mr. Oxley told us they check into past work, recommendations, and past personal experience with the contractors.
 - o What do you think would be the best way to market the Code of Practice to consultants and architects?
 - Mr. Oxley suggested a road show, of having small half day seminars at a consulting or architect firm explaining the Code of Practice. This would allow companies to see what code complaint means and how compliancy is monitored.

Mr. Arbaci suggested along with that we could try to promote it in fire protection magazines and journals.

- Would the FPA Australia Code of Practice being approved by a higher standards organization (i.e. ACCC or SAA) make Lincolne Scott more inclined to do business with code complaint companies?
- Mr. Oxley so it definitely would, because it would act as a reinsurance that the code was useful and was being audited for compliance. He also suggested looking into the approval of the Society of Fire Safety.
- Does Lincolne Scott have an internal auditing system for the codes and regulations it must follow?
- Mr. Oxley told us they draw up our blue prints to specific qualifications, perform periodic inspections during the building process, witness the test commissioning, and provide safety inspection reports throughout the project.
- Do you have any say in the contractor that gets the job?
- Generally we are asked to tender a list of contractors, or suggest a specific one, but the ultimate say goes to the building owner.

Conclusion:

This interview in some ways went the way we expected to; in regards that Lincolne Scott had never heard of the FPA Australia Code of Practice. This interview helped to give us a few ideas on the best way to market the Code of Practice to consultants and architects, which would increase the benefit to contractors and other FPA Australia members. We also were able to create further interest in the Code of Practice by making Lincolne Scott aware of it.

Interview of Corporate Gold Member Client

Date: March 30, 2004

Location: Entire Fire Protection
67 – 69 Thistlewaite St.
South Melbourne
Victoria 3205
Australia

Time: 9:45 am – 10:15 am

Interviewers: Ryan Casey, Adam Daniels, Todd Sullivan

Interviewees: Russell Lightfoot, Manager, Toyota Australia Asset Protection; Peter Aumann, Fire Alarms Manager, Entire Fire Protection

Summary:

Interview was conducted according to an agenda to determine a client's (Mr. Lightfoot) awareness of the FPA Australia and its Code of Practice. We also got feedback on one of our proposed auditing systems. Mr. Aumann sat in as a representative of Entire Fire Protection, but did not offer any comments.

Minutes:

- Introduction:
 - o Provided Mr. Russell and Mr. Aumann a brief description of our relationship with the FPA Australia and the overall project at hand.
 - o Explained our challenge; namely, to remedy the lack of Code implementation and recognition within the FPA Australia membership

- General Questions:
 - o **Are you aware of the FPA Australia and its Code of Practice?**
 - Mr. Russell, though aware of the FPA Australia, did not know of the existence of its Code of Practice.
 - Suggested that as a professional code it should be more reputable
 - Mr. Russell is more interested in looking at the quality and scope of previous work performed by a company rather than its code of practice
 - o **Do you have an internal monitoring system currently?**
 - Mr. Russell stated that the Toyota engineers create the plans and then he is responsible for checking for fire safety
 - An internal monitoring department of 4 fire officers ensures compliance within the company plant
 - As for outside monitoring, insurance representatives ensure compliance on a regular basis. In addition, Entire Fire Protection also checks up on compliance on a regular basis to conform to Standards Australia code (ex: fire alarms on a monthly basis, sprinklers on an annual basis, etc.)

- Proposed Auditing System:

- **Here is a draft of one of our proposed modeling systems (see Appendix L)**
 - (After a quick review, Mr. Russell continued to give comments) The biggest problem he sees with such a system for the FPA Australia is time constraints.
 - Might be a good idea to link up with another organization to deal with lack of time. One example would be the General Electric Global Asset Protection Service(GE GAPS)
- **How expensive is it to hire such a company to perform an audit?**
 - For four days of intensive plant compliance inspection by GE GAPS, it cost around AU \$30,000
- **How about the use of a journal or magazine as a method of increasing client awareness of the FPA Australia Code of Practice?**
 - Sure, but make sure to use a widely recognized and distributed journal for best results. Might be easier for FPA Australia to increase circulation of its own journal and advertise there. Another option is using the NFPA journal...
 - Insurance companies should be contacted to promote FPA Australia Code-compliant members to potential clients
 - Mr. Russell provided us with contact information for people within GE GAPS (Terry Behan) and an insurance company (Jerry Robertson).
 - Terry Behan – GE GAPS – (02) 9394-2800
 - Jerry Robertson – AON Risk Services – 9211-3342

Conclusion:

Mr. Russell provided a wealth of feedback on both what clients of fire protection companies look for and on our proposed auditing system. He offered to meet with us at a later time for further questions and encouraged us to tour the fire safety systems of the Melbourne Toyota plant sometime.

Appendix J – Professional Auditors Interview

Professional Auditors Interview Agenda

Date:

Location:

Time:

Interviewers:

Interviewee:

Introduction:

- Introduce ourselves and briefly explain purpose of our project.
- Explain we are testing our proposed auditing system.
- Also looking to see what professional auditing companies or organizations do.

Auditing Systems:

- 1) An FPA Australia auditor checks up on $\approx 20\%$ of corporate membership annually, resulting in each company being audited at least once every five years. Auditor ensures compliance with FPA Australia Code of Practice through review of company documents, policies, etc, which demonstrate compliance with other codes and regulations. Auditor may also check into past work history to ensure consumers are satisfied with auditee's work.
- 2) Third-Party independent auditor made requirement for FPA Australia corporate membership. This auditor would likely be in the form of an internet-based audit company that would ensure that servicing and maintenance of buildings occurred according to government and industry regulations.

Questions:

- Does our auditing procedure sound feasible?
- Is there anything else that should be included in a quality assurance audit?
- What does your company use for its auditing procedure?
- How much does employing your procedure roughly cost?

Any other questions/comments

Professional Auditors Interview Summaries

Interview Summary of Verified

Date: April 06, 2004

Location: Verified

Unit 3/21 Howleys Rd.

Notting Hill, Vic 3146, Australia

Time: 10:00 am – 10:30 am

Interviewers: Ryan Casey and Todd Sullivan

Interviewee: Glenn Talbot

Introduction:

- Introduced ourselves and explained our connection with FPA Australia
- Gave a brief overview of our project and what goals we have for it.

Minutes:

- We explained our proposed auditing system that we have so far.
- Mr. Talbot explained that the fire protection companies in Australia were partly disjointed, due to small one or two man operations lowering integrity.
- Mr. Talbot then showed us the auditing system his company has developed
 - o System uses forms adapted from SAI forms for contractors to use to conduct standard inspections/audits.
 - o Contractor completes inspection with Verified forms and then mails the form in a pre-postage paid envelope to Verified.
 - o Verified scans the forms into its database, which is compiled by the building audited.
 - o A copy is then e-mailed to the building owner, and also a report is e-mailed to them annually.
 - o Program to ensure that building owners get the service they are paying for.
- Every building must be signed off on each year, and many contractors not performing services they guaranteed, hence why Verified was developed.
- Other independent auditors use different methods.
 - o Some use PDA's but with so many different fire systems and different companies using different PDA's hard to compile information.
 - o All auditors must use a logbook and leave a paper copy for the building owner, under BAC regulations, but hard to keep track of all paper forms.
- Mr. Talbot said that for the FPA Australia to accept a company's auditing system the system would have to have the following qualifications.
 - o Independent, outside company must perform the audit to ensure integrity.
 - o Verification, must have actual proof and documentation of past audits.
 - o Compliance, must be willing to adhere to audit regulations.

Conclusion:

- Mr. Talbot supplied us with a more in depth look at a fire protection auditing system that works well and is very efficient. The system Verified uses wouldn't be anymore of a hassle to a contractors since they already use SAI forms and logbooks. Building owners are also more protected by being able to easily make sure the correct audits are being performed on a regular basis, which makes it easier for them to sign off on their building each year. With the information gained today we have new ideas of what an independent auditing company should supply to be able to conduct effective audits which the FPA Australia can use to show code compliance.

Phone Interview Summary of Paint Industry

Date: April 13, 2004

Location: Conducted over phone

Time: 12:00 pm – 12:15 pm

Interviewers: Todd Sullivan

Interviewee: Ken Lofhelm

Introduction:

- Introduced myself and explained relationship with FPA Australia and WPI
- Gave a brief overview of our project

Minutes:

- Does the paint industry have a code of practice?
 - o Yes, but it is voluntary to follow the code of practice.
- If the paint manufacturer agrees to adhere to the code of practice is there an auditing or monitoring system to ensure compliance?
 - o Yes there is a set system that is followed for performing audits.
- How does the system work?
 - o The system looks at the technical side of the paint manufacturers production. The auditor gets the formulas from the paint manufacturers, and compares this to the actual formula in the paint can. If there is a large discrepancy it is looked into, for reasoning. If a large discrepancy is found then the accreditation is revoked.

Conclusion:

- Was helpful to learn of another auditing system, but this procedure is still too technical for the FPA Australia to implement.

Interview Summary of Linked Business Concepts (LBC)

Date: April 20, 2004

Location: FPA Australia

13 Ellingworth Parade

Box Hill, Vic 3128, Australia

Time: 1:00 pm – 2:00 pm

Interviewers: Ryan Casey, Adam Daniels, Todd Sullivan

Interviewee: Roland Storti

Introduction:

- Introduced ourselves and explained relationship with FPA Australia.
- Gave a brief overview of our project and why we were meeting with him.

Minutes:

- Mr. Storti gave us a brief background of Linked Business Concepts
 - o Web-based audit company used to verify work performed by contractors in a variety of industries, including fire protection
 - o Developed in March of 2000
 - o Received its first clients in August of 2001
 - o Used by all the schools in Victoria (1630 schools) and many shopping centres.
- Mr. Storti gave us a presentation on how his business works as a third party auditor
 - o The contractor is sent a reminder fax for the next inspection.
 - o The system can be updated by contractor inspecting building via PDA, internet, facsimile, or mail.
 - The fax method has a cover sheet with a barcode on it to be used to send a copy of their inspection to LBC – no human interaction from contractor to LBC system. Contractor uses same form as usual to perform inspection.
 - When LBC receives the fax, the barcode is processed according to contractor and building and creates a PDF of the inspection sheet.
 - The PDF is e-mailed to the building owner and service provider for their records.
 - o If the fax method is not used, internet form automatically uploaded to LBC system.
 - o If an inspection is not performed, a reminder e-mail is sent to the service provider and building owner.
 - o If inspections are neglected for a longer period of time, e-mails can be sent up management hierarchy for notification.
- Advantages of LBC
 - o The system can be developed to meet needs of variety of associations and companies.
 - o Online database available 24/7

- Building owners and contractors can view past or present inspection schedules.
 - Real time updates drastically reduce feedback time.
 - Contractors can look at individual employee performance.
 - Any PDA or laptop with internet access can be used to access system and update.
- Capable of performing risk assessment/audit of building.
- End of year report compiled for building owner-containing form 15 (building safety sign-off sheet).
- Contractors can continue to use their standard log books
- System being pitched by LBC to insurance companies in effort to reduce premiums
- Costs
 - Based on a per transaction fee (transaction = 1 inspection of site, regardless of size)
 - With more transactions the price decreases
 - Ranges from \$2.00 up to \$11.00 per transaction.
 - For risk assessment/audit fee is \$25.00 to \$50.00

Summary:

- This system we gave us a much more detailed look at how third party auditors work. The contractors would be able to greatly benefit from this system since they can prove to their clients that they are performing the services agreed to. They also may be subject to reduced insurance premiums. Consultants could use this system to monitor contractors working beneath them to ensure the work is being done properly.

Professional Auditor Interview

Date: April 21, 2004

Location: Australian Competition & Consumer Commission (ACCC)
360 Elizabeth St. – 35th Floor
Melbourne, Victoria 3001, Australia

Time: 10:00am – 10:45 am

Interviewers: Ryan Casey, Adam Daniels, Todd Sullivan

Interviewee: Konrad Chmielewaki

Introduction:

- Mr. Chmielewski introduced himself and explained how he was a practicing lawyer, who reviews industry codes of practice. He has developed a packet called the *Guidelines for developing and endorsing effective voluntary industry codes*.
- Mr. Chmielewski already had a general idea of the FPA Australia, and their voluntary Code of Practice. He was not familiar however with our project, and we went on to explain to him that we were taking a first step approach to try to improve implementation.

Minutes:

- Mr. Chmielewski distributed his packet of guidelines, and went into explanation of them.
 - o First set up clear objectives.
 - Decide what this Code of Practice is trying to accomplish.
 - Establish, and review the Code of Practice.
 - Make sure it's applicable to the whole of the membership.
 - o Develop a mechanism for revision.
 - 3 year review of independent source
 - 1 year review internally
 - o Create some incentive for the stake holders
 - List these benefits clearly for stake holders, this is what they want to see how will it pay off for them
 - o Set up an administrative system (auditing)...how to monitor compliance
 - o Set up a dispute resolution mechanism.
 - Should be able to attend to the associations needs in a timely and efficient fashion.
 - o How can you measure success?
 - Reduce in complaints
 - Improved business practices
 - Improved industry and consumer awareness
- We went over the section dealing with Code essentials –key indicators.
 - o Covered ways to make sure a code of practice is working.
- Mr. Chmielewski informed us he was working on a document relaying the benefits of a code of practice being endorsed by the ACCC.
- Mr. Chmielewski asked us to send him an email including:
 - o FPA Australia Code of Practice

- Copy of our survey we conducted
 - Questions or areas we would like more information
- Mr. Chmielewski agreed to review all of this and meet with us again on Tuesday April 27, 2004, to give us further feedback.

Conclusion:

- Although the information that Mr. Chmielewski provided us with does not directly apply to our main project goal of creating an auditing system. Some of the information provided will help to improve the implementation level throughout the corporate membership. The rest of the information will be greatly useful to the FPA Australia if they chose to pursue getting the Code of Practice accredited by the ACCC.

Appendix K: Australian Consumer and Competition Commission

The following contains information on the ACCC and its history, functions and goals. Gaining an understanding of the ACCC provides a backdrop for the main focus of this project. With the approval of the ACCC we hope to give the FPAA Code of Practice widespread credibility to help promote fire safety within the community.

Trade Practices Act of 1974 (TPA)

The ACCC was established by the Trade Practices Act of 1974. The TPA was designed to, “enhance the promotion of competition and fair trading and provision through consumer protection” (ACCC, Jan 2004, ACCC and the Trade Practices Act). It covers product safety, market practices, and industry codes.

Background

The Australian Consumer and Competition Commission (ACCC) is classified as an independent Commonwealth statutory authority. Formed in 1995, the organization is the sole Australian agency dealing with business competition matters. Most notably, the ACCC enforces the Trade Practices Act (TPA) of 1974.

The ACCC consists of a chairman, Chief Executive Officer, five full-time members, four associate commissioners and eight ex-officio commissioners. Being appointed to any of these positions requires the participation of State, Territory and Commonwealth

governments. The organization maintains two national centers of operation, one in Canberra and another in Melbourne. The remaining offices are spread out in each capital city and Townsville (ACCC, Jan 2004).

Decision-Making

The ACCC decision-making body is referred to as ‘the Commission’ and meets regularly to discuss and take action on matters investigated by the ACCC. These meetings are chaired by the chairperson and must include at least two of the five full-time members. Separately, each of the full-time members heads a specialized committee responsible for discussing issues in its respective field. They are the Enforcement, Mergers, Energy, Telecommunications, and Transport Committees. These committees meet weekly or as needed to make recommendations to the Commission (ACCC, Jan 2004).

Purpose

According to the roles and activities section of the ACCC website,

The ACCC promotes competition and fair trade in the marketplace to benefit consumers, business and the community. It also regulates national infrastructure services. Its primary responsibility is to ensure that individuals and businesses comply with the Commonwealth competition, fair trading and consumer protection laws.

The ACCC also becomes involved in business conduct and transactions during dispute resolution. In circumstances when the ACCC believes a section of the TPA has been violated, it will conduct an investigation to collect the necessary information. The following questions, as listed on the enforcement priorities section of the ACCC website, serve as a guideline for the types of issues the ACCC concerns itself with:

- Was there an apparent blatant disregard of the law?
- Does the party of concern have a history of previous contraventions of the law, including contraventions that occur overseas?
 - What is the significance of public detriment and/or number of complaints?
 - What is the potential for action to have a worthwhile educative or deterrent effect?
- Does the matter involve a significant new market issue?
- Will the likely outcome justify the use of resources?

In cases where the ACCC decides to take action, a wide variety of tools are available. They range from informal notices to criminal proceedings. An informal letter is used for mild offenses, usually seeking assurance from the person or organization in question that the breach of law will be rectified. A formal letter is used for more serious violations or when an organization fails to reply to a previous informal letter. This form of warning outlines the possible consequences of not adhering to the ACCC's wishes. In the event an issue needs to be addressed on a more legal level, but both parties agree to not involve court proceedings, the Commission may engage in direct negotiations. Mediation by neutral third parties may also occur at this stage of the conflict resolution (ACCC, Jan 2004).

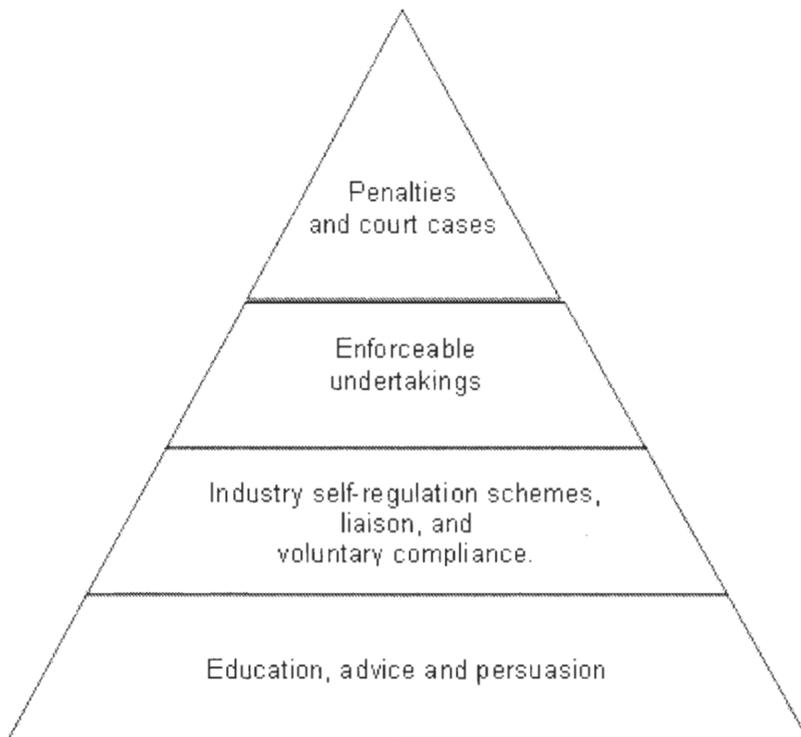


Figure 12: ACCC Conflict Resolution Steps. The ACCC prefers to educate and advise people about their obligations under the Act, and to resolve possible contraventions of the Act agreeably. Court action is considered by the ACCC as a last resort for obtaining compliance (ACCC, 2004, enforcement priorities).

In the event the ACCC is unable to resolve a matter out of court, it can institute proceedings seeking injunctions, refunds, declarations, or other remedies. Before this step, however, the ACCC generally encourages all consumer-related industries and organizations to adopt some form of self-regulation. These regulations, specified by the TPA, can be either voluntary or involuntary, and serve to apply ACCC standards to business conduct (ACCC, Jan 2004).

Appealing decisions

A company or individual may appeal an ACCC decision through the Australian Competition Tribunal. This route is taken when appealing a grant for immunity from the Trade Practices Act of 1974 or during arbitration decisions in cases involving access to essential facilities (ACCC, Jan 2004).

Appendix L – Technical Auditing Procedure

With the FPA Australia having an eclectic membership creating one general auditing system would cause a lot of it to be non-applicable to certain members. For this reason we are proposing an auditing system set up with different methods for different companies.

Architects and Consultants

With the FPA Australia Code of Practice deals with many technical aspects of fire protection engineering this process will help ensure they are being followed. To make sure that the designs meet all of the standards listed in the Code of Practice, a blue print or design schematic must be submitted to the FPA Australia for review. A certified Fire Protection engineer will conduct the review of the given design. The consultant firm would not need to wait for FPA Australia approval of the design before work could start, but if FPA Australia finds any discrepancies between the Code of Practice and the design the necessary changes must be fixed. FPA Australia may also inspect the progress of the work to make sure it follows the given design. Once again a certified fire protection engineer, who would follow the procedure given for on site inspections, would conduct this inspection.

Contractors

The actual installation of fire protection systems is a crucial process to ensure safety. A mistake made during this process can result in being costly in terms of greater damage to the building or even the death of someone if a fire does break out. Onsite inspections will need to be conducted in order to make sure compliance with the Code of Practice is being followed. An onsite inspection will be conducted in the manner listed below.

Onsite Inspections

Onsite inspections will be scheduled ahead of time to make sure a certified auditor is prepared and that the company is available. This will cause both the FPA Australia and the auditee to save time and money in the long run. To prepare for the inspection an auditor will be chosen by the FPA Australia director. The auditor will be a certified fire protection engineer as well as certified to conduct audits and will have the attributes listed below:

The ability to act objectively and independently.

The ability to analyse information and to express findings clearly, concisely, and in a timely manner.

Experience in, and knowledge of, the voluntary consensus standards system including FPA Australia criteria for accreditation, due process and consensus.

General knowledge of auditing principles and methods obtained through any combination of experience, education or FPA Australia training.

The auditor may be employed full time by the FPA Australia or just sub-contracted on a need basis. At any time the auditor can be removed from the case by the director, an example of when this may be if the auditor has or develops a bias during the process.

The auditor will schedule the time for the inspection with the company at least a week in advance, at which time the auditor will be able to obtain any background information needed on the company. This may involve what type of fire protection engineering they are involved in and what annex of the Code of Practice do they follow. This will give the auditor time to review this annex before the actual inspection. The day before the auditor will call the company to confirm the appointment and clear up any questions either may have.

During the inspection auditor will use a standardized auditing form, which will be used for all inspections. This form will help to guarantee there is no bias during the inspections and everyone is given a fair audit. The auditor will check into all the procedures that follow under the FPA Australia Code of Practice. The inspection will last as long the auditor thinks is needed to do a thorough inspection

Once the inspection has been finished the auditor will then compile a report. The report will consist of a brief description of the annex or annexes from the Code of Practice that pertained this company's inspection, the auditor's findings, suggestions on how to fix any problems found, and a the form used during the audit. The report will be mailed back to the company and a conference call between the company and auditor will take place to make sure the report is understood. The company will have three business days to file a reply, which must contain how they will fix any problems and a timetable for when they will be fixed. Both the auditor's and the company's report will be submitted to the FPA Australia Director, so he can either close the case or suggest another future audit.

Appendix M – Interview with Konrad Chmielewski

Professional Auditor Interview

Date: April 28, 2004

Location: Australian Competition & Consumer Commission (ACCC)
360 Elizabeth St. – 35th Floor
Melbourne, Victoria 3001, Australia

Time: 10:00am – 11:15 am

Interviewers: Todd Sullivan

Interviewee: Konrad Chmielewski, National Director - Industry Codes

Introduction:

- We supplied Mr. Chmielewski with a list of issues we had identified with the FPA Australia Code of Practice.
 - o Applicability to all corporate members (consultants)
 - o Complaint procedure
 - o Revision mechanism
- Mr. Chmielewski had reviewed the Code, and gave us his personal suggestions that are not in conjunction with the ACCC on how to address these concerns.

Minutes:

- Mr. Chmielewski first addressed the applicability issue
 - o Consultants and contractors should first be clearly defined
 - Define what aspects of the fire industry each deal with
 - Define each one's responsibilities (framework)
 - o Consultants may need own section of Code of Practice
 - Dealing with audits/inspections they perform
 - Design aspects they must follow
- Mr. Chmielewski then addressed the complaint procedure issue
 - o Current process
 - The procedure now in place more or less says, do as you want as long as you do not get caught, you are fine (do what you want as long as no complaints).
 - No real consequences, just to need to address complaint with consumer and more or less apologize.
 - o What the current system needs.
 - First what counts as a complaint must be defined
 - Consumer should first address complaints directly to member, as in to give chance for restoration.
 - Members must have clear guidelines of compliance.
 - Consumers must have access to complain easily
 - Awareness of complaint process
 - Web or fax submission available
 - All Complaints must be recorded/logged, preferably in a database.
 - Complaints must be addressed in a timely manner.

- Should be addressed by an appointed board, preferably independent of members.
- Consequences need to be set up to create deterrence.
 - Consequences must be clearly defined before hand.
 - Restoration of complaint
 - Revocation of membership
 - Added to registry of non-compliant members for consumers' reference
- Annual report of all complaints and consequences made for reference.
 - How many complaints were received
 - What type of complaints were received
 - Give members better idea of issues in the industry and how they were solved
- Complaints and consequences of specific incidents made known to entire membership as an example.
- Mr. Chmielewski also supplied us with the book, *Benchmarks for Industry-Based Consumer Dispute Resolution Schemes*
- Mr. Chmielewski then addressed the revision mechanism issue
 - Currently the system is very vague and therefore not meeting needs
 - Always on going process, should always be collecting data.
 - Code should be reviewed/audited
 - Code should be reviewed internally once a year at least
 - Code should be reviewed externally once every three years, for a different perspective
 - Reviews should address what is working and what is not working in the Code
 - Help to maintain applicability, keeps Code from becoming obsolete.
 - Audits performed on members are a good way to obtain an idea of the status of the Code.
 - Complaints or non-compliance in audit handled same as complaints from consumers.
 - Need to apply consequences not just write them.
 - Members in past have been non-compliant, but no consequence.
 - All ISO 9000 standards require independent audit anyways
 - Clear auditing procedure
- Mr. Chmielewski then addressed other issues he saw in the Code
 - Code of Practice is very important since it deals with public safety and is definitely needed.
 - Need to clarify in the Code how it applies to other standards
 - This will easily show companies it applies to them
 - Which standards, need to list them, maybe even how apply
 - Voluntary Code may not be good enough may need legislation

- Example: Plumbers and electricians must get all work in each building inspected after its been performed.
- Objectives need to be tightened up to follow overall objective: Safety of fire protection.
 - Need to define what is meant by assets
 - Should expand on best practice, what is it?
 - Satisfactory is vague and contradictory to best
 - Statutory requirements should be outlined
 - Objective g needs to be better clarified
- Section 4.0 Contract Administration
 - Vague, not always clear in meanings
 - Technical meanings should be defined
- Section 5.0 Benchmarks
 - Define each one
 - Projected completed in timely manner? Is this objective or must it be stipulated in contract
 - Value of money?
 - Training/research development – statement not benchmark
 - Benchmark should a template can be measured against
- Section 6.0 Conduct of Tender
 - Ambiguous
 - What other legal arrangements
 - Last line states that tenderer should know?
 - 6.5 says may change to should, as in required
 - Could a non-signature tender get copy of the Code
- Section 7.0
 - Need to define what regulatory authorities
 - Can be dangerous for FPA Australia to allow use of logo without knowing if compliant
 - Non-compliance typically found out after the fact, or too late.

Summary:

- Mr. Chmielewski gave us many possible ideas on how to resolve our concerns with the Code of Practice. While doing so Mr. Chmielewski also reviewed the code and gave us some areas where he felt it needed strengthening, once again these are only his opinions are not revisions or mean accreditation by the ACCC. Many of these areas dealt with the wording or phrasing of statements, as Mr. Chmielewski is a practicing lawyer and sees the legal aspect. It would be helpful to have the Code of Practice reviewed by some one in the fire protection industry to get an industry point of view.