

**Ministry of Economic Development Discussion  
Document**

**Better Regulation of the Building Industry in New  
Zealand**

**Submission by the Society of Fire Protection Engineers  
(SFPE) NZ Chapter**

**9<sup>th</sup> April 2003**



## INTRODUCTION

The New Zealand Chapter of the Society of Fire Protection Engineers (SFPE) is very supportive of the Government's aim to improve the controls on the design and construction of buildings and welcomes the opportunity to have an input into the proposed changes.

Under the Building Regulations 1992, the fire safety design of buildings was given substantially more importance than was the case prior to the passing of the Building Act in 1991. As a result, there has been a large increase in the number of people working in this area of the building industry. Our chapter represents a wide cross section of the individuals involved in the design and construction of the fire safety aspects of new and existing buildings. Our membership includes fire safety design engineers, designers of fire protection systems, building inspectors from Territorial Authorities (TAs), building certifiers and members of the Fire Service. With this range we are able to provide input on the fire safety aspect of the building regulations from all sides of the industry.

As well as the points raised in the discussion document, there are two specific areas associated with fire safety of buildings that our membership consider to be potential problems. The first involves the difficulty in ensuring that the fire design prepared by the fire engineer is accurately reflected by the plans that are submitted for building consent. There have been numerous instances where a fire design has been prepared on the basis of plans that have been subsequently amended and submitted for consent approval without being referred back to the fire engineer for review. In some instances the changes can invalidate the fire design and then the process is reliant on the expertise of the building inspector to recognise the errors. Some TAs have instituted a system requiring the plans submitted for consent approval to be signed by the relevant designers such as fire, structural etc. The SFPE endorses this approach and recommends that it be made mandatory throughout the country.

The second area of concern is similar to that highlighted by John Scarry on the structural aspects of construction. In the present construction climate owners and developers are eliminating the input of the fire engineers during construction in order to save cost. This means that the quality and correctness of the fire safety aspects of the construction is dependent upon the technical ability and diligence of the building inspectors. For a basic building, designed in accordance with the acceptable solutions, this may be sufficient although there have been many cases where inspections of "signed off" building have found potentially life threatening defects. For complicated buildings involving alternative solutions it is unreasonable to expect building inspectors to have the knowledge or time to closely inspect the areas of construction that are critical to the fire design of the building. The SFPE considers that for buildings where alternative solutions have been adopted it should be mandatory for the designer to be engaged to undertake construction monitoring. This is already being done by some TAs and should be extended nation-wide.

We would welcome further discussion on the above points as well as any matters raised in the following answers to the questions posed in the discussion document.

## **QUESTION SHEET RESPONSES**

### **Q1 Will our proposals achieve the purposes of a building control system?**

Yes, but it will need action in all of the fields covered in the document in order to be effective. The government will need to make a commitment to provide the funds necessary to implement the changes outlined in the document.

One area not addressed in the proposals that would have a significant effect on the quality of the construction of buildings is a requirement that the designers of a building and its processes be involved in the construction.

### **Q2 Will our proposals achieve these purposes in the most cost effective way?**

Possibly not. The proposals involve creating significant levels of bureaucracy, which will impose additional costs on central government, territorial authorities and building practitioners. These increased costs will inevitably be passed on to the consumer in the form of taxes, rates or increased fees. Efforts will need to be made to minimize compliance costs associated with the new regulations.

### **Q3 Will our proposals continue to allow new and innovative building systems and products to reach consumers?**

Generally yes but the additional costs resulting from the proposals may act as a disincentive to people trying to bring new products into the market. In addition, using Standards NZ to prepare acceptable solutions may restrict the adoption of new building systems and products. The high administration costs imposed by Standards will be a factor in the ease of getting new systems to consumers. Also, Standards' practice of not paying members of committees means that only employees of large organizations who can afford to support their employees' lost time are likely to be on committees. The employers are likely to have a pecuniary interest in the outcome of the standard so the requirements in it may be skewed by the predominance of members with vested interests. This may not be in the best interests of the consumer.

### **EXTENDING THE SCOPE OF THE BUILDING ACT 1991**

**Q4** No Comment

**Q5** No Comment

**Q6** No Comment

**Q7** No Comment

## **BETTER DESIGNS, METHODS AND PRODUCTS**

### **Q8 Are there areas of the Building Code that should be more detailed?**

Yes. A commentary style document giving some insight into the intentions of the Code writers would be very useful. There is often a range of ways Code clauses can be interpreted. At present we have to wait for Determinations or Court rulings, which can be a very costly ambulance at the bottom of the cliff approach. In addition, a recent determination relating to fire safety stated that alternative designs were to be measured against the safety level provided by the Acceptable Solution. At present the Acceptable Solution does not identify or quantify the level of safety achieved by adherence to the Acceptable Solution,

### **Q9 Do you think there is scope to increase the number of Acceptable Solutions? If so, where?**

Yes. In particular the fire safety documents require more than one Acceptable Solution, as is made readily obvious by the number of Alternative Solutions being used. This is a result of aspects of the Acceptable Solutions that are not acceptable to the engineer, building owner or consumer on a wide variety of projects. The consequence being that, each time the matter arises the engineer involved must derive an alternative process, which must be justified and reviewed before being accepted. This loop is constantly repeated by a variety of practitioners at a significant cost to the clients and hence the consumer'.

### **Q10 If there were a greater number of Acceptable Solutions, what impact would this have on you?**

Alternative designs can encompass new technology and new products with ease and in an economic manner that benefits all parties. If a widely used alternative design was accepted as an Acceptable Solution it may provide a more cost effective method that was nationally accepted. It would also remove the probability of alternative designs being flooded with data and statistics to 'assist' the Territorial Authority in approving them at a significant cost to the applicant and the TA.

### **Q11 Do you believe that a greater number of Acceptable Solutions would lead to better buildings?**

Yes, as it would allow true flexibility. An aspect of one Acceptable Solution may not readily fit one particular building or consumer and an 'off the shelf' alternative which had been nationally accepted may be more economic than having to follow the more expensive (in both cost and time) regime of Alternative Solutions and peer reviews. Within the drywall construction book there are two 'acceptable solutions' using timber frame or steel frame that can be swapped with ease and still obtain the same result without any costly processes to be followed.

### **Q12 Do you think the Building Industry Authority (BIA) should have stronger powers to control the products and building methods used in the building industry?**

No, the BIA should be limited to writing the documents and approving the products as the consumer has the responsibility to ensure the product has been properly installed. The problem would seem to be at the next step where the consumer relies on the builder to

install the product correctly and the Territorial Authority to inspect and certify the same. The BIA's powers should be directed at the Territorial Authority to ensure that they as the named party in the Building Act, 1991 are adequately skilled to carry out their prescribed functions. The BIA should use its present power under section 58 of the Act and promote the Accreditation of Building Products and Processes system to a point where it is then made the requirement by the Territorial Authorities. Nobody is using the Accreditation process because, rightly or wrongly, the present process is viewed as being overly bureaucratic and BRANZ approval has become the widely accepted criteria.

**Q13 Under what circumstances, if any, should the BIA be able to ban or restrict use of building methods or products?**

After a reasonable period, say 1 to 2 years, methods and products that are still not accredited should be deemed not to have met the Code criteria. The BIA could also be more proactive in that when notified by a Territorial Authority or other party that a product is failing in service, the BIA should issue a warning notice or caution that the product is causing problems in some applications. The BIA could contract much of this task to BRANZ.

**Q14 Under what circumstances, if any, should the BIA be able to require an Acceptable Solution to be used?**

Never, as this would remove the performance aspect of the Building Code and would also tend to indicate that the performance requirements of the Building Code were not adequately set out in the first place.

**Q15 Will these proposals make it easier or harder to bring good new designs, products and building systems into the market?**

In general it should make it easier as the performance requirements would be clearer and more extensive. The engineer and builder would have more flexibility in the range of product available and therefore be able to provide more innovation in design. The Territorial Authority must have more skilled staff available to carry out their certifying function over a greater range of product, which can be simplified by better definition of a product and its installation criteria.

***Accrediting Inspectors and Certifiers***

**Q16 Do you think the accreditation proposal will improve the quality of inspection services?**

From a fire safety perspective, if the accreditation process concentrates on inspection and certification, such as quality assurance methods, then this will add significant cost without a corresponding improvement in the quality of inspection services. The key to improving standards in fields such as fire engineering, where specialist technical expertise plays an important role, is to be able to control the expertise and competency of inspectors and certifiers. This is especially true for Territorial Authorities outside of the main cities, as they are not exposed to the scale and complexity of projects found routinely in the larger population centres.

**Q17 Do you think the accreditation processes will lead to consistent standards being applied by all Territorial Authorities and building certifiers?**

Any attempt to develop national controls or standards is likely to improve the current situation where expertise and competency are not verified, as long as the accreditation process measures the ability, experience and competence of personnel to carry out the required tasks. Acceptance of alternative solutions for fire safety varies widely, depending on the Territorial Authority and the expertise and competency of their staff. However, true consistency in the standards applied by the Territorial Authorities will only occur when their approach to risk is consistent. For as long as the managements of the various Territorial Authorities and Building Certifiers take different views on risk, the standards applied will vary accordingly.

**Q18 If you don't think these proposals will lead to improved quality and consistency, what do you think would?**

As stated previously, improvements in quality and consistency will only be marginal where new accreditation processes concentrate on the actual technical process of delivering inspection services and not on the expertise and qualifications of the staff themselves.

Improved consistency will occur if the Inspectors and Certifiers better understand their risk and liability (eg. have a better understanding of the need to be satisfied "on reasonable grounds", rather than adopting an expectation of needing to be satisfied beyond all reasonable doubt). This could occur if Inspectors and Certifiers were more accepting of the advice given by independent and suitably qualified professionals acting as peer reviewers.

Improving the quality of inspection services starts with having people appropriately qualified to carry out their task. For example, staff reviewing designs prepared by Professional Engineers should have a similar level of qualification and competence. Requiring a formal accreditation may not be the best solution. There are already ways of determining basic competency hence quality of the service (design/inspection/certification) through schemes such as the Chartered Professional Engineer status and membership of professional bodies. Although these organisations do not necessarily establish specialist expertise in a technical field they at least provide a benchmark which would improve the consistency of inspection services.

***Certifying Products and Processes***

**Q19 Would product certification be useful to you?**

With respect to stand alone products associated with fire safety have generally already been tested and certified by a registered fire testing laboratory as meeting the specific fire requirements and therefore additional certification is not warranted. However with respect to building systems such as GIB<sup>®</sup> Fire Rated Systems the proposed certification would provide benefits to ensure that the completed product is constructed in a way that will meet its requirements.

**Q20 Do you think that more building product certification would lead to better quality design and building?**

Not necessarily as it would probably lead to designers specifying a product without first satisfying themselves that it was actually fit for the intended purpose.



**Q21 Do you think the BIA should be able to require that a certified product must be used where certain risks occur?**

No

**Q22 Do you think the BIA should be able to ban certain products? If so, what criteria should the BIA apply in making these decisions?**

Yes, but only where it can be shown that for the intended use the product does not meet the performance requirements of the Building Code.

### ***Assessing the Benefits and Costs of Controls***

**Q23** No Comment

**Q24** No Comment

## **CAPABLE PEOPLE**

**Q25 Should building practitioners be registered?**

We support the use of competent persons to carry out work on critical aspects of the building process, and registration is considered the best way of assuring a reasonable level of competence by the registration of selected disciplines within the building industry. Registration of selected groups of practitioners is likely to improve the consistency of building practice in compliance with the NZBC.

**Q26 If so which trades or professions should be registered?**

Registration should be applied to aspects of the building that are related to health and safety or are otherwise regarded as critical to compliance with the Building Act such as those listed in section 44. In this regard building practitioners should be accredited by a body experienced and actively involved in that discipline, particularly in the health and safety disciplines such as fire safety engineering

**Q27 What do you think of the registration proposals in this paper?**

In principle, we support the concept of registration of selected disciplines. However, the level at which registration is required must be carefully set. Setting the threshold too low will result in too many practitioners needing to gain registration and the registration becoming a rubber-stamp, fee paying process with little regard to actual competency, as evidenced by the present system for acceptance of IQP's.

We recommend that, in each discipline, a registered practitioner be required to be in charge of and responsible for the various phases of a project, typically but not restricted to design, construction and certification. With one, two or three individuals allowed to take the registered practitioner role for these stages.

However we feel that there may be a need to strengthen objectives in the following areas:  
practice by a building practitioner outside his or her accredited discipline  
maintenance of individual rather than corporate or trust responsibility  
ensuring that adequate warranties and/or insurances are provided.



**Q28 Are there any particular proposals with which you strongly agree or disagree, and why?**

We strongly support the use of outside agencies to undertake the registration process for particular disciplines, rather than relying on one all-encompassing body. Organisations such as SFPE and IPENZ already have membership requirements that are likely to be suitable for recognition as a form of registration.

**Q29 If you are a building practitioner, would you, your colleagues or your employees become registered under the above proposals? If not, why not?**

This response is a collective one on behalf of a technical group within IPENZ, in general we would encourage our membership to become registered practitioners.

**Q30 Do you think registration should be mandatory for work requiring a Building Consent? If not, why not?**

We support the mandatory use of registered practitioners in critical areas of the building process for most work requiring a building consent (eg. where health or life safety issues are altered by the work proposed or where the total value of the work is above a threshold set and adjustable by the TA).

**Q31 Should Territorial Authorities assess the qualifications and skills of unregistered building practitioners?**

For unregistered practitioners working on critical items, there is a need for some assurance that they are competent to carry out the work. However, the Territorial Authorities are unlikely to have the skills necessary to make this assessment. We consider that TAs should be required to accept trade skills qualifications as appropriate from accredited organisations such as NZQA or plumbing/electrical registration boards. In accordance with our recommendation in response to Q 27 the registered practitioner responsibility(ies) should rest with the lead practitioner for that section of the work, and there should not be any need for TA to assess qualifications of other individuals in the work team.

**Q32** No Comment

**Q33** No Comment

**IMPROVING INFORMATION**

**Q34 – Q38** No Comment

## **PUTTING THINGS RIGHT**

### ***Mandatory Building Warranty***

#### **Q39 Would mandatory warranties help clarify responsibilities between building owners and building professionals?**

Mandatory warranties would identify the various areas of responsibility but it will be necessary to determine which building professionals they should apply to. The designer, builder and the inspecting body all have responsibility for ensuring that the building complies with the various requirements of the building code.

It must be decided whether the warranties should only apply to residential buildings such as stand alone houses, terraced houses and multi storey apartment buildings or to all buildings.

Mandatory warranties would only be effective if the entity providing them could be relied on to be in existence for a lengthy period. If a company is set up for only the one project and liquidated upon completion of the building any warranty would be worthless. It must also be decided how the warranty is transferred to subsequent owners. The present practice of a developer having a building constructed and then immediately on-selling it as a whole or split into unit titles would create problems if defects were found some years later.

#### **Q40 If so, what mandatory provisions should be included in a warranty?**

Warranties should cover design, construction methods, quality of construction, materials and products. The warranty should be that the particular aspect complies with the requirements of the building code and will enable the building to be used for the agreed use.

### ***Enhanced Dispute Resolution Procedures***

**Q41** No Comment

**Q42** No Comment

### ***When Building Professionals Fail***

#### **Q 43 Given the Government's intention to legislate for additional measures to deal with company insolvency and phoenix companies, does anything else need to be done to deal with these issues specifically within the building industry?**

The proposals are a good step however another of the potential problems that will need some thought is that of directors who have been 'listed' as no good but start up companies using another persons name but still exercise control of a company themselves.

### ***Insurance, Bonds and Guarantee Funds***

**Q44** No Comment



**Q45** No Comment

## **ENHANCING ENFORCEMENT**

### **Q 46 Would a system of infringement penalties be effective?**

The infringement notice scheme to control non-permitted building work, failing to maintain a building according to the compliance schedule and displaying a building WOF is a good measure to bring building activity under some control.

In the past, some people have undertaken non-permitted work knowing the worst outcome is the TA finding out about the work and getting them to obtain a Building Consent.

The suggestion in the document that the process would be used to 'make an example' of an individual or organisation implies that this would not be used for all cases and that the example would bring others into line.

We believe this approach should be applied to all cases and it is only by doing this consistently that control will eventually be achieved in this area.

### **Q 47 Do you think the BIA should have an enforcement role?**

We believe the BIA's role is to set the frame-work through which the Building Industry operates and provide technical guidance. The enforcement of building requirements in NZ should rightly rest with the TA's. It would not be helpful to have two independent bodies engaged in building controls

The TA's however, do not record and document situations that they have no building consent for and there are a significant number of buildings that have been erected without going through the consent process.

There should be a requirement to undertake surveys of buildings in each TA's area to ensure that all buildings in their respective areas have consent and consequently, the buildings will comply.

Such an activity falls within the scope of activity for a TA but the BIA can audit the process.

It may however, be useful if the BIA undertook reviews from time to time of different building construction activities by forming a task group to check if a currently accepted building practice was now or could lead to problems with buildings in the future. Such a scheme may have identified the leaking building problem before it became a major issue in the country.

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