



Earthquake-prone, Dangerous and Insanitary Buildings Policy 2006

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Earthquake-prone buildings (EPB)

Introduction and Background

Section 131 of the Building Act 2004 requires territorial authorities (TA's) to adopt a policy on Dangerous, Insanitary and Earthquake-prone buildings by 31 May 2006.

131 Territorial authority must adopt policy on dangerous, earthquake-prone, and insanitary buildings

- (1) A territorial authority must, within 18 months after the commencement of this section, adopt a policy on dangerous, earthquake-prone, and insanitary buildings within its district.
- (2) The policy must state—
 - (a) the approach that the territorial authority will take in performing its functions under this Part; and
 - (b) the territorial authority's priorities in performing those functions; and
 - (c) how the policy will apply to heritage buildings.

The definition of an earthquake-prone building is set out in section 122 of the Building Act 2004 and in that related regulations that define moderate earthquake¹. This definition covers more buildings and requires a higher level of structural performance of buildings than that required by the Building Act 1991.

122 Meaning of earthquake-prone building

- (1) A building is earthquake prone for the purposes of this Act if, having regard to its condition and to the ground on which it is built, and because of its construction, the building—
 - (a) will have its ultimate capacity exceeded in a moderate earthquake (as defined in the regulations); and
 - (b) would be likely to collapse causing—
 - (i) injury or death to persons in the building or to persons on any other property; or
 - (ii) damage to any other property.
- (2) Subsection (1) does not apply to a building that is used wholly or mainly for residential purposes unless the building—
 - (a) comprises 2 or more storeys; and
 - (b) contains 3 or more household units.

This document sets out the policy adopted by Nelson City Council in accordance with the requirements of the Building Act 2004 by resolution of the Environment Committee at its meeting on 2 May 2006, and confirmed by Council at its meeting of 18 May 2006.

¹ The government has, in regulations, defined a moderate earthquake as 'in relation to a building, an earthquake that would generate shaking at the site of the building that is of the same duration as, but that is one-third as strong as, the earthquake shaking (determined by normal measures of acceleration, velocity and displacement) that would be used to design a new building at that site'.

The policy is required to state:

- the approach that the Nelson City Council will take in performing its functions under the Building Act 2004,
- Nelson City Council's priorities in performing those functions, and
- how the policy will apply to heritage buildings.

In developing and adopting its earthquake-prone buildings policy, Nelson City Council has followed the special consultative procedure set out in section 83 of the Local Government Act 2002.

Nelson City Council has made extensive use of the Department of Building and Housing's guidance document and, for ease of reference, the policy has been set out in the same format as its policy template.

This policy does not apply to ordinary residential homes unless they are two or more storey's and they contain 3 or more household units.

Glossary of Terms

| | |
|---------------|---|
| EPB..... | Earthquake Prone Building |
| LIM..... | Land Information Memorandum |
| PIM | Project Information Memorandum |
| NZSEE | New Zealand Society of Earthquake Engineers |
| NRMP | Nelson Resource Management Plan |
| NZHPT | New Zealand Historic Places Trust |
| NZHPAct | New Zealand Historic Places Act 1993 |
| TA | Territorial Authority |

1 Policy approach

1.1 Policy principles

Provisions of the Building Act in regard to earthquake-prone buildings reflect the Government's broader concern with the life safety of the public in buildings and, more particularly, the need to address life safety in earthquake.

The development of EPB policies is up to each Territorial Authority and this policy has been developed after due consultation with Nelson City Council ratepayers and stake-holders in accordance with section 83 of the Local Government Act 2002.

1.2 Overall approach

Nelson is in a zone of moderately high seismicity. Its buildings comprise a range of types and ages reflecting steady development over the last 100 years, from unreinforced masonry buildings to modern multi-storey steel and concrete buildings.

In spite of the relatively small size and moderately high seismicity of Nelson, Nelson City Council has pursued strengthening unreinforced masonry buildings under the Local Government Act 1974 and the Building Act 1991. It thus has experience of the social and economic implications of implementing earthquake-prone building legislation. The timetables for strengthening under the previous legislation reflected the economic and social constraints and were arrived at after considerable debate by the Council.

Nelson City Council's earthquake-prone building policy under the Building Act 2004 embodies a similar approach and reflects the Council's determination to reduce earthquake risk over time in a way that is acceptable in social and economic terms to its ratepayers.

Nelson City Council will:

- a. review the City's building stock to identify buildings that fall within the scope of potential earthquake-prone buildings under the Building Act 2004
- b. require building owners to assess the performance of those buildings in relation to the new building standard and, in particular, to the standard defined for earthquake-prone buildings
- c. determine from this broad assessment those buildings that are earthquake-prone in terms of the Building Act 2004
- d. contact owners of these buildings and invite them, within a limited time-frame, to meet with and/or obtain further details from the Council on future requirements
- e. give written notices to all owners of earthquake-prone buildings once the deadline for meeting Council has passed and, subject to the results of discussions, to require them to carry out work to reduce or remove the danger or demolish the building within a specified time-frame

- f. allow owners a right of appeal as defined in the Building Act 2004, by applying for a determination under section 177

1.3 Identification of EPB's

Nelson City Council will:

- a. undertake an initial desktop review of Council files to assess which buildings could be earthquake-prone
- b. follow this with a brief inspection of each building where necessary
- c. require these building owners to carry out an initial evaluation of performance in earthquakes by using the NZSEE Initial Evaluation method process
- d. require building owners to do a detailed assessment on buildings identified as earthquake-prone in the initial evaluation, unless otherwise agreed in discussion following the initial evaluation
- e. categorise the earthquake-prone buildings according to the following:
 - 1. Buildings with special post-disaster functions as defined in AS/NZS 1170.0:2002, Importance Level 4.
 - 2. Buildings that contain people in crowds or contents of high value to the community as defined in AS/NZS 1170.0:2002, Importance Level 3.
 - 3. Buildings with a Heritage Classification of A or B under the Council's NRMP or registered under the NZHP Act.
 - 4. Buildings with an Importance Level less than 3 as defined in AS/NZS 1170.0:2002.

1.4 Assessment criteria

For practical purposes, Nelson City Council will define EPBs as those that, when subject to moderate earthquake shaking, do not meet or exceed the criteria for ultimate limit state as defined in the loadings and materials Standards for new buildings.

Nelson City Council will use the NZSEE Recommendations as its preferred basis for defining technical requirements and criteria. These Recommendations are designed to be used in conjunction with AS/NZS 1170 Loadings Standard, NZS 3101 Concrete Structures Standard, NZS3404 Steel Structures Standard and other materials Standards.

The definition of moderate earthquake is subject to continuous review by the Department of Building and Housing. At the date of this policy it is taken to be:

A moderate earthquake is considered to be an earthquake that would generate shaking at the site of the building that is of the same duration as, but that is one-third as strong as, the earthquake shaking (determined by normal measures of acceleration, velocity and displacement) that would be used to design a new building at the site.

1.5 Taking action on earthquake-prone buildings

Nelson City Council will:

- a. advise and liaise with owners of buildings identified as earthquake-prone
- b. require owners to carry out an independent assessment of the structural performance of those buildings identified as earthquake-prone
- c. serve formal notices on owners of earthquake-prone buildings in accordance with the Building Act 2004, requiring them to remove the danger
- d. allow owners to appeal against the classification within 12 months of receipt of notice

1.5.1 Required level of structural improvement

Nelson City Council will require buildings identified as earthquake prone to be strengthened to at least 67 percent of the standard NZS1170.5:2004 Structural Design Actions Part 5:Earthquake Actions – New Zealand. In accordance with the recommendations of the New Zealand Society for Earthquake Engineering, the Council considers this to be an appropriate level for the requirement to reduce or remove the danger.

1.6 Interaction between EPB policy and the Building Act 2004

1.6.1 Section 112: Alterations to existing building

Whenever a Building Consent application is received for significant upgrading or alteration of a building that is or could be earthquake-prone, then, irrespective of the general priorities set by Nelson City Council for dealing with earthquake-prone buildings, the Council will not issue a building consent unless it is satisfied that the building is not earthquake-prone and that the building work will not detrimentally affect the building's compliance with the NZ Building Code.

If the building is shown to be earthquake-prone, then the Council will require that the building be strengthened to the level identified in Section 1.5.1.

1.6.2 Section 115: Change of use

Whenever a Building Consent application is received for change of use of a building that is or could be earthquake-prone, then, irrespective of the general priorities set by Nelson City Council for dealing with earthquake-prone buildings, it will be a requirement of the building consent that the owner make a detailed assessment of the earthquake-prone building in its existing condition.

If the building is shown to be earthquake-prone then the Council will require that the building be strengthened to comply as nearly as is reasonably practicable with every provision of the NZ Building Code that relates to structural performance as is required by section 115(b)(i)(A) of the Building Act 2004. (In this instance the requirement for earthquake-prone buildings would be the same as that for non-earthquake-prone buildings.)

1.7 Dealing with building owners

The steps in the process are outlined in 1.5 above.

- a. Before exercising its powers under section 124, Nelson City Council will seek, within a defined time-frame, to discuss options for action with owners with a view to obtaining from the owner a mutually acceptable approach for dealing with the danger, leading to receipt of a formal proposal from owners for strengthening or removal.
- b. In the event that discussions do not yield a mutually acceptable approach and proposal, Nelson City Council will serve a formal notice, under section 124 of the Building Act 2004, on the owner to strengthen or demolish the building.

1.8 Recording a building's EPB status

Nelson City Council will keep information relating to earthquake-prone buildings on the relevant property file. This information will note the status of requirements for improvement or the results of improvement as applicable.

In addition, the following information will be placed on any LIM or PIM for each earthquake-prone building:

- a. address and legal description of land and building
- b. statement that the building is on the Council's register of earthquake-prone buildings
- c. date by which strengthening or demolition is required (if known)
- d. statement that further details are available from the Council to those who can demonstrate a genuine interest in the property

1.9 Economic impact of policy

No specific analysis for the city of the economic impact of this legislative requirement has been carried out.

An accurate analysis can only be made after the buildings have been evaluated to identify the nature and extent of any strengthening work.

1.10 Access to EPB information

Information concerning the earthquake status of a building will be set out on the relevant LIM.

The Council will keep a record of the NZSEE grade of all buildings assessed.

Nelson City Council will not require earthquake-prone buildings to have an identifying plaque. Having the information available at the council offices is sufficient notice.

The requirements of the Local Government Official Information and Meetings Act 1987, and the Local Government Act 2002 will be met.

2 Priorities

Nelson City Council has prioritised both the identification and the requirement to strengthen or demolish buildings as follows.

Figures in the table indicate the latest date for identification and notification by the Council and the maximum time for strengthening or demolition by the owner. Times required for strengthening or demolition commence on the date of issue of formal notice. Specific times will be assigned for action according to the assessment of structural performance and the nature of concerns.

The priority order is:

Table 1

| Building Category and Action Timeframes | |
|--|--|
| Building Category | Date of Identification and Subsequent Action |
| Importance Level 4 Buildings with special post-disaster functions as defined in AS/NZS 1170.0:2002 | December 2008 (15 Years) |
| Importance Level 3 Buildings that contain people in crowds or contents of high value to the community as defined in AS/NZS 1170.0:2002 | December 2009 (20 years) |
| Heritage Classification A and B Buildings with a Heritage Classification of A or B under the Council's register | December 2010 (25 years) |
| Importance Level of less than 3 Building with an Importance Level of less than 3 as defined in AS/NZS 1170.0.2002 | December 2011 (30 years) |

Once each priority/category of building in Table 1 has been reviewed and the earthquake-prone buildings within it identified, the process of liaising with owners and serving notice on them will commence. Identification of buildings in each category will proceed according to the priorities identified above.

The overall approach and timetable is summarised in the accompanying Outline Implementation Programme.

3 Heritage Buildings

3.1 Special considerations and constraints

It is important that heritage buildings have a good chance of surviving a major earthquake.

However, Nelson City Council does not wish to see the intrinsic heritage values of these buildings adversely affected by structural improvement measures.

Heritage buildings will be assessed in the same way as other potentially earthquake-prone buildings and discussions held with owners and the New Zealand Historic Places Trust to identify a mutually acceptable way forward. Special efforts will be made to meet heritage objectives.

Following this consultation period, notices will be served requiring improvement or demolition within a stated (and preferably agreed) time-frame.

Dangerous or Insanitary Buildings

1.0 Identifying Dangerous or Insanitary Buildings

The Council will:

- a. Respond and investigate all building complaints about dangerous or insanitary buildings.
- b. Identify from these any buildings that may be dangerous or insanitary.
- c. Notify the owners of the building to take appropriate action.
- d. Consult with the Medical Officer of Health as required. (This is especially the case if occupants are considered neglected or infirm.
- e. Liaise with the NZ Fire Service when appropriate in accordance with section 121(2) of the Building Act 2004.

1.1 Assessment Criteria

Assessment will be made in accordance with the Building Act 2004 Sections 121 or 123 and the NZ Building Code. Assessment will include:

- a. If the building is occupied
- b. The building use
- c. If the building is likely to cause injury or death to people
- d. If conditions present a danger to the health of occupants
- e. Potential for damage to other property
- f. Whether a fire hazard exists

Where a building is occupied an assessment of insanitary conditions will include a review of:

- a. The adequacy of sanitary facilities for the use. NZ Building Code G1, Personal Hygiene
- b. The adequacy of potable water, NZBC G12 Water Supplies
- c. The extent of separation of kitchen from other sanitary facilities
- d. Evidence of moisture penetration, NZBC E2 External Moisture
- e. Defects in cladding to roof
- f. Construction materials
- g. If the building is offensive or likely to be injurious to health because of how it is situated or constructed or whether or not it is in a state of disrepair

1.2 Taking action on insanitary buildings

The Council will:

- a. Notify the owner of the building of the assessment findings
- b. Attach a notice to the building requiring rectifying work to be carried out within a time stated to be not less than 10 working days
- c. Give copies of the notice to the owners, occupiers and every person who has an interest in the land, and if the building is a heritage building, to the New Zealand Historic Places Trust

- d. Contact the owner at the expiry of the time period set down in the notice so that access to the building can be gained to assess compliance with the notice
- e. Determine if enforcement action should be pursued under the Building Act if the requirements of the notice are not met.

If immediate action is required, the Council will:

- a. Cause action to be taken under Section 129 of the Building Act 2004, to fix the insanitary conditions
- b. Take action to recover all costs from the owner
- c. Inform the owner that the amount recoverable by the Council will become a charge on the land on which the building is situated.

If owners dispute the Council's actions, they can seek a Determination from the Department of Building and Housing. That decision can be subject to appeal at the District Court.

1.3 Taking action on dangerous buildings

The assessment of whether or not a building is considered to be a dangerous building will include a review of:

- a. If the building is occupied
- b. The building use and occupancy
- c. If the building is likely to cause injury or death to people
- d. If the building is likely to cause damage to other property
- e. Whether a fire hazard exists

The Council will:

- a. Notify the owner of the building of the assessment findings
- b. Attach a notice to the building requiring rectifying work to be carried out within a time stated to be not less than 10 working days
- c. Give copies of the notice to the owners, occupiers and every person who has an interest in the land, and if the building is a heritage building, to the New Zealand Historic Places Trust
- d. Contact the owner at the expiry of the time period set down in the notice so that access to the building can be gained to assess compliance with the notice
- e. Determine if enforcement action should be pursued under the Building Act if the requirements of the notice are not met.

If immediate action is required, the Council will:

- a. Cause action to be taken under section 129 of the Building Act 2004 to fix the dangerous conditions
- b. Take action to recover all costs from the owner
- c. Inform the owner that the amount recoverable by the Council will become a charge on the land on which the building is situated.

If owners dispute the Council's actions, they can seek a Determination from the Department of Building and Housing. That decision can be subject to appeal at the District Court.

1.4 Record-keeping

Any building identified as dangerous or insanitary will have a note placed on the property file. That note will be uplifted once the issues conditions have been addressed.

LIM's and PIM's will note that the building is dangerous or insanitary, and include

- a. Copy of the notice
- b. Any report on how the matter is to be rectified

1.5 Access to Information

Information concerning the dangerous or insanitary status of a building will be set out in the relevant LIM. The requirement of the Local Government Official Information and Meetings Act 1987, and Local Government Act 2002 will be met.

1.6 Economic Impact of the Policy

The Council receives very few complaints about dangerous or insanitary buildings. At this level, and having in mind not all complaints are upheld, the economic impact of the policy is considered to be negligible, but no specific assessment has been carried out.

1.7 Heritage Buildings

Heritage buildings will have to comply with this policy.

1.8 Priorities

Priorities will be assigned by risk. Generally, because of the life safety issues involved, a high priority is assigned to the matter.

Priority will be given where immediate action is required to remove and fix dangerous conditions.

Where immediate action is not required, Council action will be subject to the timeframe set in any notice.

Earthquake Prone Buildings Policy: Outline Implementation Programme

| Activity | YEAR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|----------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|--|
| | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | | |
| Category (a) buildings | Review | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Discuss | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Serve notices | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Action to improve/demolish | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Category (b) buildings | Review | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Discuss | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Serve notices | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Action to improve/demolish | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Category (c) buildings | Review | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Discuss | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Serve notices | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Action to improve/demolish | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Category (d) buildings | Review | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Discuss | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Serve notices | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Action to improve/demolish | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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