

## *Determination 2005/44*

# *Refusal of a code compliance certificate for a building with a “monolithic” cladding system: House 38*

## **1 THE DISPUTE TO BE DETERMINED**

1.1 This is a determination of a dispute referred to the Chief Executive of the Department of Building and Housing (“the Chief Executive”) under section 17 of the Building Act 1991 as amended by section 424 of the Building Act 2004 (“the Act”). The applicant is the owner and the other party is the territorial authority (“the TA”). The application arises from the refusal by the TA to issue a code compliance certificate (“CCC”) for a 6-year old house unless changes are made to its monolithic cladding system.

1.2 My task in this determination is to consider whether I am satisfied on reasonable grounds that the external wall cladding as installed (“the cladding”) on this house complies with the building code (see sections 18 and 20 of the Act). By “external wall cladding as installed” I mean the components of the system (such as the backing sheets, the flashings, the joints and the coatings) as well as the way the components have been installed and work together.

1.3 This determination is made under the Building Act 1991 subject to section 424 of the Building Act 2004. That section came into force (“commenced”) on 30 November 2004, and its relevant provisions are:

“ . . . on and after the commencement of this section,—

“(a) a reference to the Authority in the Building Act 1991 must be read as a reference to the chief executive; and

“(b) the Building Act 1991 must be read with all necessary modifications to enable the chief executive to perform the functions and duties, and exercise the powers, of the Authority . . . ”

It should be noted that the new legislation does not amend the determination process set out under the 1991 Act, other than to transfer the power to make a determination from the Building Industry Authority (“the Authority”) to the Chief Executive.

- 1.4 This determination refers to the former Authority:
- (a) When quoting from documents received in the course of the determination, and
  - (b) When referring to determinations made by the Authority before section 424 came into force.
- 1.5 In making my decision, I have not considered any other aspects of the Act or the building code.
- 1.6 The house itself is described in paragraphs 2.1 to 2.4, and paragraph 9 sets out my decision.

## **2 PROCEDURE**

### **The building**

- 2.1 The building is a two-storey detached house situated on a moderately sloping site in a medium wind zone in terms of NZS 3604: 1999 “Timber framed buildings. The building is of conventional light timber frame construction, on a concrete foundation slab with concrete block retaining walls to two sides at the lower level. The roof is clad with coated metal tiles with the exception of a small barrel roof clad with a liquid-applied fibre-glass-reinforced membrane. There are 580mm wide eaves except to one side and part of another where the fascia board is set off 80mm from the wall face. Much of the upper floor level is cantilevered over the ground floor walls to a varying extent, often by as much as 500mm, expressing the floor level change and providing some “eaves” protection to parts of the lower walls. There is an enclosed balcony to one face of the house and an arched window is constructed above the main entrance, but on the upper level, under the barrel roof feature. The joinery is aluminium.
- 2.2 The designer’s specification required the use of “Treated No 1 Radiata Pine to H1 of T.P.C. Specification e.g. Tanalith or Boron Type treatments” for timber framing purposes. In the absence of any evidence to the contrary in the detailed submission received from the TA. I accept that the house was constructed using timber treated to the equivalent of H 1.2 for framing of the external walls.
- 2.3 The building is clad with what is described as monolithic cladding. The cladding is a particular proprietary product, installed in accordance with the manufacturer’s instructions, which include flashings to heads, jambs, sills, trims and corners. As detailed in that manufacturer's instructions (“the instructions”), it incorporates 40 mm thick expanded polystyrene (EPS) backing sheets fixed through building wrap directly to framing timbers and finished with a proprietary mesh reinforced product plaster system supplied by the manufacturer of the backing sheet system.

- 2.4 The supplier of the cladding system (polystyrene and coating system) issued a guarantee in February 2004. The guarantee states that the date of completion of the cladding system was April 1998.

### Sequence of events

- 2.5 It appears that the TA issued a building consent early in 1998, since the house was apparently built in the period from March to May 1998.
- 2.6 Early in 2004 the owner requested a CCC from the TA. The TA carried out an inspection and subsequently wrote to the owner on 8 March 2004 expressing concern that the house “may not comply with the building code in a number of respects”, and declined to issue a CCC.
- 2.7 The TA issued a notice to rectify (entitled Notice to Rectify Building Work No 1793) and attached it to the letter to the owner dated 8 March 2004.
- 2.8 In its letter to the owner dated 8 March 2004, the TA said, inter alia:

The council cannot be satisfied that the cladding system as installed on the above building meets the Functional Requirements of Clause E2 External Moisture of the Building Code, which states:

**E2.2** *Buildings shall be constructed to provide adequate resistance to penetration by, and the accumulation of, moisture from the outside.*

A Notice to Rectify under section 42 of the Building Act 1991 is attached to this letter. This sets out which aspects of the building work we require to be rectified so that we are able to conclude that your house complies with the Building Act and /or the building code. You will need to apply for a variation to your building consent.

If you wish to dispute the Notice to Rectify, you are entitled to apply to the Building Industry Authority (BIA) for a determination. The BIA will make a determination as to whether or not your house complies with the Building Code and, to the extent it does not, what further works you will be required to undertake.

- 2.9 In the Notice to Rectify the TA required the owner to fix 6 items of non-compliance with” the manufacturer’s specifications”, 4 items of non-compliance with” accepted trade practice”, and 1 item of non-compliance with the “acceptable solutions of the building code”, and required the owner to:
- Provide adequate ventilation to the monolithic cladding and into the wall frame space by means of either a ventilated cavity or alternate approved system, and ensuring all issues relating to the above are resolved at the cladding system as installed on the above building will meet the functional requirements of Clause E2 External Moisture of the New Zealand Building Code.
- 2.10 It appears that some of the faults detected by the TA’s inspection were rectified following receipt of the TA’s letter and Notice to Rectify. No information has been provided on the scope of that work and whether the TA approved or inspected the remedial work.
- 2.11 The owner applied for this determination on 8 May 2004.

### **3 THE SUBMISSIONS**

3.1 The owners provided a covering letter with their application that outlined the events from the issuing of the consent until the application for determination.

3.2 The owner's letter and application was supported by:

- The plans and specifications for the house;
- The plaster system supplier's warranty;
- The plaster system supplier's letter in response to the TA's Notice to Rectify;
- The TA's letter declining to issue a CCC;
- The TA's Notice to Rectify;
- An independent consultant's report on the condition of the house, commissioned by the owner;
- Two reports on the house construction process completed by an architectural student as part of degree studies which document a series of site visits and indicate that generally good building practices were followed by the builder;
- A series of photographs; and
- The TA final inspection report.

3.3 The TA's first submission contained material that related to another house. The owner pointed out the error and the TA then made a new submission that did relate to the appropriate house. In making this determination I have taken care to ensure that only relevant material has been examined. The TA's new submission restated the grounds on which the notice to rectify was issued, explained the TA's current view that a "no risk" approach must be taken when considering compliance with clause E2, and stated the TA's view that "based on what we know today the only way of achieving a no risk type policy is by way of a cavity." The submission also responded to some of the points made in the owner's submission, including the owner's own comments and those contained in the letter from the plaster system supplier and the independent consultant, and commented on the plaster system supplier's warranty.

### **4 THE RELEVANT PROVISIONS OF THE BUILDING CODE**

4.1 The dispute for determination is whether the TA's decision to refuse to issue CCC because it was not satisfied that the cladding complied with clause E2.3.2 of the building code (First Schedule, Building Regulations 1992) is correct. Those provisions of the building code provide:

**Clause B2 DURABILITY**

**B2.3.1**

Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building, if stated, or:

- (a) The life of the building, being not less than 50 years, if:
  - (i) Those building elements (including floors, walls, and fixings) provide structural stability to the building, or
  - (ii) Those building elements are difficult to access or replace, or
  - (iii) Failure of those building elements to comply with the building code would go undetected during both normal use and maintenance of the building.
- (b) 15 years if:
  - (i) Those building elements (including the building envelope, exposed plumbing in the sub floor space, and in-built chimneys and flues) are moderately difficult to access or replace, or
  - (ii) Failure of those building elements to comply with the building code would go undetected during normal use of the building, but would be easily detected during normal maintenance.

**Clause E2—EXTERNAL MOISTURE**

**E2.1**

The objective of this provision is to safeguard people from illness or injury, which could result from external moisture entering the building.

**E2.2**

Buildings shall be constructed to provide adequate resistance to penetration by, and the accumulation of, moisture from the outside.

**E2.3.2**

Roofs and exterior walls shall prevent the penetration of water that could cause undue dampness, or damage to building elements.

4.2 There are no Acceptable Solutions that have been approved under section 49 of the Act that cover this cladding. The cladding is not accredited under section 59 of the Act. I am therefore of the opinion that the cladding system as installed can be considered to be an alternative solution.

4.3 In several previous determinations, the Authority made the following general observations about acceptable solutions and alternative solutions:

- Some acceptable solutions cover the worst case, so that in less extreme cases they may be modified and the resulting alternative solution will still comply with the building code.
- Usually, however, when there is non-compliance with one provision of an acceptable solution, it will be necessary to add some other provision to compensate for that in order to comply with the building code.

## 5 THE EXPERT'S REPORT

5.1 The Authority commissioned an independent expert ("the expert") to inspect and report on the cladding. The expert said there was no visual evidence of cracks in the surface and the paint was free from any shadowing or discolouration. The expert also said that generally the finished surface was of new appearance (despite being six years old) and appeared to be defect free. He noted that there were no control joints evident in the walls, but that according to the manufacturer's specification, the panels in this house did not require them. He noted that though penetrations through the cladding generally appeared to have been adequately fixed and sealed, the fixings for down-pipes did not appear to have been sealed. He removed sections of plaster coating at a randomly selected window and determined that the PVC jamb and sill flashings were in place according to manufacturer's recommendations. The head flashings were evident and invasive testing was not required to confirm their presence. The hand rail fixings to the wall surrounding the deck was found to be defective, with apparent failure of the sealant, and evidence of leaking into the cladding being found in the wall below one such fixing. He also noted that the balcony had been installed with a slight fall to the perimeter drain and that that fall, while less than desirable, was sufficient to prevent ponding on the balcony surface. Although the expert expressed the view that "there is no apparent evidence of performance failure in relation to the requirements of the New Zealand Building Code", he noted that some "lesser aspects of the Installation Specification and good practice have not been met which lead to concern about compliance with B2 over time." These "lesser aspects" are as follows:

- Ground clearance requirements at the entrance and sides of the garage have not been met, but the risk of leaking is mitigated by the shelter afforded by the deck above. A photograph supplied by the owner shows that the paving to the right of the garage door has been lowered to ensure improved ground clearance;
- The balcony handrail fixings are defective, are allowing moisture to enter behind the polystyrene and should be resealed and water-tested;
- The balcony overflow should be enlarged to at least the same diameter as the outlet;
- The 50mm upstand of the deck membrane below the doors onto the deck is only slightly higher than the invert of the overflow from the deck posing a risk of water entry behind the membrane in the event that the outlet becomes blocked. Lowering the invert as part of enlarging the overflow (see above) would reduce the risk;
- The junction of the EIFS cladding and the barrel roof currently relies on a sealant vulnerable to premature failure; and
- The fixings of the down-pipes to the building, which penetrate the cladding, are not sealed against water entry.

5.2 The expert used a non-invasive moisture meter to internal areas that were considered to be high risk for moisture ingress. No moisture was detected in any area.

Consequently no invasive moisture meter readings were taken. The expert did not test for moisture in the balcony balustrade framing adjacent to the failed handrail connection because the moisture in the wall could be observed.

5.3 Copies of the expert's report were provided to each of the parties. The applicant made no comment on the report. The TA made comments as follows:

- The TA stated it is not uncommon for non-invasive moisture meter readings to be low but for invasive testing to show high readings;
- The TA observed that it was difficult to base compliance with the code on the basis of compliance with an independent laboratory product appraisal when neither the appraisal nor the manufacturer's specification had been followed;
- The TA queried whether there were any mitigating features that would stop timber degradation when the building leaks; and
- The TA queried whether, in the light of the expert's report, there were reasonable grounds on which to be satisfied that the building complied with the building code.

## **6 THE HEARING**

6.1 The territorial authority requested a hearing, which was held before a tribunal consisting of the Determination Manager and one Referee acting for and on behalf of the Chief Executive by delegated authority under section 187(2) of the Building Act 2004. At the hearing, the two owners attended, together with an architect commissioned by them, and the territorial authority was represented by two of its officers. Three staff members of the department were also in attendance. The owner produced a written submission for the hearing. The territorial authority and the owner spoke and called evidence at the hearing, and evidence from those present enabled me to amplify or correct various matters of fact that were not adequately identified in the draft.

6.2 The owner described what had ensued between the territorial authority and the owner after the draft determination had been issued. According to the owner, the final conclusion reached by the territorial authority was to entirely re-clad the house together with the provision of a cavity. The owner had commissioned the architect as an independent consultant to examine the house and provide a plan of rectification to carry out the work outlined in the draft determination. The architect inspected the deck timbers after the soffit linings had been removed and found no evidence of water penetration, apart from a small area adjacent to the deck downpipe. An inspection of the handrail fixings showed that they did not penetrate the top of the balustrade. The owner was prepared to carry out the items listed in the determination, and had been advised that if there was concern about durability due to the age of the building, then this could be covered by means of a waiver placed on the code compliance certificate.

- 6.3 The territorial authority stated that it had to act on up-to-date information. However, sometimes there was a delay, as the territorial authority needed time to evaluate new information before changing its procedures. As the house did not comply with the building code, the territorial authority also requires direction from the Department on the scope of work required to resolve the weathertightness problems. If the latter were not forthcoming, the territorial authority would cooperate with the owners to work through the issues. The solution would be to either mitigate the weathertightness risks or to provide early detection. The territorial authority was moving away from a cavity requirement, provided that efficient early warning detectors were installed in lieu. As the cladding had been in place for some time, evidence of past maintenance was an essential requirement. If any agreed rectification work were poorly carried out the territorial authority would have to reject it.

## 7 DISCUSSION

### General

- 7.1 I have considered the submissions of the parties, the expert's report, and the TA's comments on that report, and the other evidence in this matter, including that raised at the hearing. The approach to determining whether building work complies with clause E2.3.2 is to examine the design of the building, the surrounding environment, the design features that are intended to prevent the penetration of water, the cladding system, its installation, and the moisture tolerance of the external framing.

### Weathertightness risk

- 7.2 Recent New Zealand data and experience indicates that the impact of weathertightness problems in monolithic clad houses can be minimised if good and effective design and construction practices are followed.
- 7.3 The installation of exterior cladding to manufacturer's specifications and to accepted good trade practice is an important, but not the only, consideration to ensure good weathertightness performance.
- 7.4 The next priority is to reduce the ability of moisture to get through the cladding by using design measures that minimise the effects of the rain impacting on the walls.
- 7.5 Experience suggests it is important to note that:
- Data shows a strong relationship between the width of the eaves and the incidence of wall leaks. An effective deflection mechanism, such as eaves greater than 600 mm wide, has been shown by Canadian data to manage more than 90% of rain incidence;
  - While most reported leaks are substantially caused by defects in the cladding that require little or no wind pressure differential, I believe that buildings in high and very high wind zones (as defined by NZS 3604) are likely to experience wind pressure differentials and thus a higher risk of water ingress;



- Taller buildings result in an effective increase in the catchment area of the wall. Available data suggests a clear correlation between higher number of storeys and an increased incidence of leaking;
- Complex roofs and overall envelope shapes where the roofs frequently intersect with the walls on upper floors create opportunities for leaks to directly penetrate into the wall; and
- Recent data also shows that decks and balconies that are exposed in plan and/or cantilevered from the external walls are the most frequent location for water leaks.

7.6 Any likely penetration of moisture through the cladding can then be countered by a combination of effective drainage, ventilation of the drainage cavity and moisture tolerance in the external wall framing timber. Desirable characteristics of a wall system are that:

- The structure should allow water that has penetrated the cladding to drain out as quickly as possible. I believe that generally a drainage cavity should be provided behind the outer cladding barrier in monolithic construction;
- The design of the outer walls should allow walls to dry to the outside once moisture penetrates the cladding and the moisture barrier. If walls do not dry, decay fungi can become established in as little as 3 months. Until scientific data on the optimum depth and configuration of the ventilation mechanism in New Zealand conditions is available, I believe that the drainage cavity should be not less than 20 mm deep; and
- The external walls should have some degree of decay resistance or moisture tolerance to allow for situations when moisture circumvents the cladding and moisture barriers and moisture levels in the timber rise to more than 18%.

7.7 In relation to these characteristics, I find that this house:

- In the case of the upper floor has a 580mm eaves overhang to more than half the walls so that there are significant areas of wall that have little effective shielding from rain.
- In the case of the lower floor has shelter from rain, similar to that provided by eaves, for much of the wall area because the upper floor overhangs by varying distances up to 500mm in places.
- Is in a medium wind zone;
- Is constructed to two levels;
- Has an external balcony attached to the external framing, but not built over habitable space. Most of the balcony is cantilevered from the main structure;
- Has two short valley gutters;

- Has one small wall/roof intersection;
- Has face-fixed cladding with no drainage cavity; and
- Has external walls that are constructed from timber treated to the equivalent of H1.2, which provides some initial protection from decay.

### **Weathertightness performance**

- 7.8 I note the TA's comment that the expert has reported finding some areas of non-compliance with the building code, manufacturer's specifications and (best) trade practice. I have previously noted in other determinations that compliance with manufacturer's recommendations or independent appraisal is not a determinant of code compliance. What is important is the performance of this cladding in this particular situation. I find that the cladding, with some exceptions, can be considered to be effective in preventing the ingress of water.
- 7.9 I note the TA's query about the expert's wisdom in relying on non-invasive moisture meter readings, and, in the absence of any indication of moisture, deciding not to carry out invasive moisture meter testing. It is my view that the expert is sufficiently experienced to be able to judge the most likely locations of leaks and to check those with the non-invasive meter. If the expert feels extra investigation is necessary, and particularly if non-invasive testing results indicate some doubt, the expert knows I would expect further, invasive, testing to be carried out. The expert on the particular site must make such judgments based on the circumstances of each case.
- 7.10 I accept the expert's conclusion that control joints are not required in any of the wall panels on this house.
- 7.11 I accept the expert's conclusion that the small ground clearances to the perimeter concrete paving at the front of the garage and at the entrance foyer do not prevent the building from meeting the performance requirements of the building code. I find that the detail in the entrance foyer is acceptable because:
- The area is well sheltered by the porch and therefore the amount of rainwater hitting the cladding will be small; and
  - The floor tiles have been laid to provide a fall away from the entry door which should ensure water does not accumulate at the floor to wall junctions.

I find that the clearances between the cladding and concrete paving at the left hand side of the garage door is acceptable because the deck overhead shields the lower edges of the cladding and the adjacent concrete paving and should prevent the accumulation of water at the junctions between the two. The clearance to the right hand side of the garage door is similarly shielded and I note the careful shaping of the paving to slope towards the adjacent surface water drain.

- 7.12 I note the absence of a head flashing to the garage door opening. While the installation of such a flashing would normally be good practice, in this case I

consider the door head to be so well sheltered by the deck above that a flashing is unnecessary.

- 7.13 The cladding on the column at the outer corner of the entry porch appears to be in very close proximity to the paved ground level. I note the comment from the plaster systems supplier in his letter dated 25 March 2004 that, “The pillar wrapped in (EIFS product name) going into the ground is quite acceptable as the post itself being treated timber could be left exposed to the elements. The (EIFS product name) will not wick water and will not deteriorate below ground and therefore will only help protect the post.” I observe that I have seen no evidence as to the timber treatment of the enclosed timber post but am prepared to accept that it is suitably treated as stated in that letter. Notwithstanding this fact, I consider that a detail that embeds the EIFS cladding into concrete paving requires specific design and do not consider that the use of treated timber is sufficient.
- 7.14 I find that while the building design lacks eaves protection of some walls and lacks a cavity, it has compensating factors that can assist in preventing moisture from entering the building. Notably the cladding has generally been installed well, and in accordance with the manufacturer’s instructions with regard to both the polystyrene substrate and the approved plaster system. Flashings have been installed and there are no defects in the cladding finish. However, I believe there is evidence that moisture is entering the building through the cladding at the junctions of the deck hand rail to the deck balustrade wall.
- 7.15 As the recently approved new E2 /AS1 makes clear, there are circumstances where the combination of risk factors applying to a particular building on a particular site may mean that the building will perform satisfactorily, and therefore be code compliant, without a drained and ventilated wall cavity. It is essential that buildings are considered on a case-by-case basis to ensure that all the circumstances are considered properly.
- 7.16 I note that one of the 4 elevations of this building demonstrates a moderate weathertightness risk rating when assessed using the risk matrix published in the Acceptable Solution E2/AS1. The other 3 elevations demonstrate a low weathertightness risk rating. The matrix is designed for the assessment of buildings at consent stage. At the time a CCC is to be issued the TA has the ability to inspect the building as actually constructed and judge the compliance accordingly.
- 7.17 I have noted the presence of the valley gutter and the upper level enclosed deck. I consider that both details can, unless designed and constructed appropriately, increase the risk of weathertightness failure. I have not been asked to determine the compliance of the valley gutter because it is not part of the wall cladding. Furthermore I note that the TA has approved the gutter details as part of its inspection processes. Nonetheless I must emphasise the risks inherent in the gutter if it is not designed and constructed appropriately.
- 7.18 In the case of the deck the consequence of water entering the construction and causing decay of load-bearing timber members could be the collapse of the deck floor or the deck wall with serious risk of injury to people. The Authority issued a public warning about the dangers presented by balconies that had been affected by

timber decay. I therefore strongly recommend that the TA use the powers available to it under section 124 of the 2004 Act to address the safety hazard presented by the balustrade.

## 8 CONCLUSION

- 8.1 I find the expert's report establishes that, as at the time of this determination, there is evidence of external moisture entering the building. Accordingly I find that the cladding on this particular building does not comply with clause E2.
- 8.2 The building is also required to comply with the durability requirements of clause B2. Clause B2 requires that a building continues to satisfy all the objectives of the building code throughout its effective life, and that includes the requirement for the building to remain weathertight. Because the cladding faults in this building are likely to allow the ingress of moisture in the future, the building does not achieve the durability requirements of clause B2.
- 8.3 I also find that because the faults in this cladding occur in discrete areas, it is able to conclude that rectification of the identified faults is likely to bring the cladding into compliance with the code. Once the cladding faults listed below have been satisfactorily rectified this house should be able to remain weathertight and thus comply with both clause E2 and B2. Those faults are:
- The fixing of the hand rail to the deck wall is not weathertight;
  - The fixings of the down-pipes to the cladding are not sealed against moisture ingress;
  - The seal between the barrel roof and the EIFS fascia above the semi-circular window is not of a durable construction; and
  - The balcony overflow is smaller than the outlet.
- 8.4 I note the importance of the owner's responsibility for ongoing maintenance to the cladding. The code assumes that normal maintenance necessary to ensure the durability of the cladding is carried out, and thus clause B2.3.1 of the building code requires the cladding to be subject to "normal maintenance". That term is not defined, so I take the view that it must be given its ordinary and natural meaning in context. In other words, normal maintenance of the cladding means inspections and activities such as regular cleaning, repainting, replacing sealants, and so on.
- 8.5 It is emphasised that each determination is conducted on a case-by-case basis. The fact that a particular cladding system has been established as being code compliant in relation to a particular building does not necessarily mean that the same cladding system will be code compliant in another situation.
- 8.6 I decline to incorporate any waiver or modification of the building code in its determination.

## **9 THE DECISION**

- 9.1 In accordance with section 20 of the Act, I determine that there is evidence of external moisture entering the building and, therefore, the cladding on this particular building does not comply with clauses B2 & E2. Accordingly, it confirms the TA's decision to refuse to issue the CCC.
- 9.2 I find that because of the compensating factors in this case, the lack of a drained cavity behind the cladding is not, on its own, sufficient grounds to withhold a CCC.
- 9.3 I, therefore, find that once the items of non-compliance that are listed in paragraph 8.3 are rectified to the approval of the TA, together with any other instances of non-compliance that become apparent in the course of rectification, the cladding as installed on the house will comply with the building code, notwithstanding the lack of a drainage cavity. I cannot dictate how the defects are to be remedied and the cladding brought to compliance with the building code. That is a matter for the owner to propose and for the TA to accept or reject, with either of the parties entitled to submit doubts or disputes for another determination.
- 9.4 I emphasise the importance of ensuring, as part of rectification of the deck wall, that the cantilevered timber members supporting the deck are inspected by the TA as a matter of urgency to ensure that no moisture damage has already occurred, and that repairs are made if necessary.
- 9.5 The Notice to Rectify issued by the TA is thus superseded by this decision and is now void.
- 9.6 The cladding has now been in place for 6 years, and its 15-year durability performance requirement will start once the code compliance certificate is issued. Continuing maintenance of the cladding will therefore be required to ensure its continuing building code compliance.

Signed for and on behalf of the Chief Executive of the Department of Building and Housing on 15 April 2005.

John Gardiner  
**Determinations Manager**