



Determination 2017/073

Regarding compliance schedule requirements and the classified use of three proposed commercial poultry sheds at 115 Brown Road, Tuakau

Summary

The determination considers whether the correct classified use for the proposed poultry sheds is "industrial" or "outbuilding", and whether the operational systems are specified systems and so a compliance schedule is required. It also discusses whether the requirements for access and facilities for people with disabilities apply to the poultry sheds.

1. The matter to be determined

- 1.1 This is a determination under Part 3 Subpart 1 of the Building Act 2004¹ ("the Act") made under due authorisation by me, Katie Gordon, Manager Determinations, Ministry of Business, Innovation and Employment ("the Ministry"), for and on behalf of the Chief Executive of the Ministry.
- 1.2 The parties to the determination are:
 - the owner of the property, Bromley Park Hatcheries Limited ("the applicant"), acting through an agent
 - Waikato District Council ("the authority"), carrying out its duties as a territorial authority or building consent authority.
- 1.3 I have included CoveKinloch ("the design consultant") and the Poultry Industry Association of New Zealand ("PIANZ") as persons with an interest in this determination.
- 1.4 In this determination, I have referred to the following legislation, the relevant parts of which are included in the Appendix:
 - The Building Act 2004 – references to sections are to sections of the Act.
 - The Building Code (First Schedule, Building Regulations 1992) ("the Building Code") – references to clauses are to clauses of the Building Code.
 - The Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005 ("the Regulations") – references to Schedule 2 are to Schedule 2 of the Regulations.

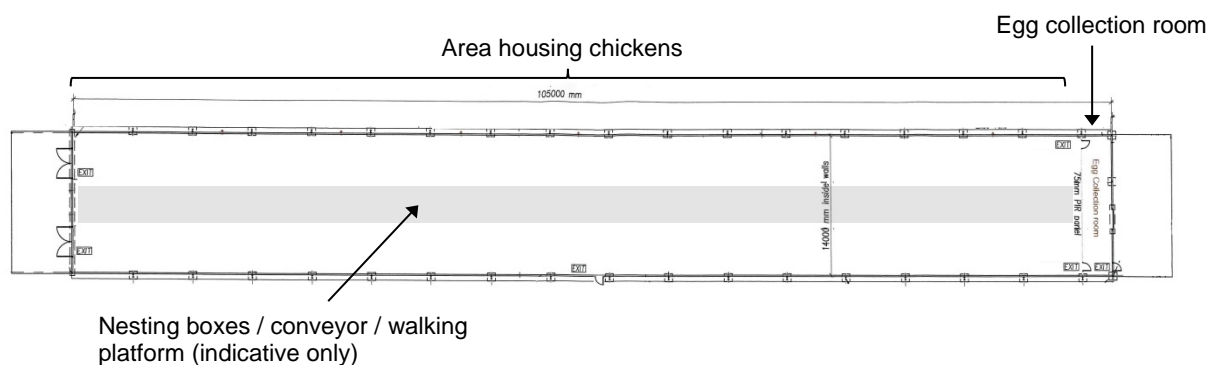
¹ The Building Act, Building Code, compliance documents, past determinations and guidance documents issued by the Ministry are all available at www.building.govt.nz or by contacting the Ministry on 0800 242 243.

- 1.5 This determination arises as the owner is seeking clarification regarding the classified use that applies to the proposed new breeder production buildings (“the poultry sheds”), and whether the provisions of the Act relating to access for people with disabilities, specified systems, and compliance schedules apply to these buildings.
- 1.6 The matter to be determined² is therefore whether the poultry sheds without a compliance schedule and without access for people with disabilities will comply with the Act and its regulations. In order to make this decision I must consider:
- what is the correct classified use for the poultry sheds under Clause A1 of the Building Code and accordingly whether the limits on application³ apply in respect of
 - Clause F6 of the Building Code relating to visibility in escape routes, and
 - Clause D1 of the Building Code relating to access routes for people with disabilities
 - whether the “operational systems” are specified systems as defined in Schedule 1 of the Regulations, and whether the provisions of the Act concerning compliance schedules apply to the poultry sheds. The “operational systems” include emergency lighting, mechanical ventilation and emergency power.
- 1.7 In making this determination I have considered the submissions of the parties and the persons with an interest in the matter. I have not considered any other aspects of the proposed building work outside of the matters set out in paragraph 1.6 above.

2. The buildings and occupancy

- 2.1 The building work considered in this determination consists of three proposed poultry sheds that would expand an existing large scale industrial poultry complex located on a rural site.
- 2.2 The proposed poultry sheds are 14m x 105m and capable of housing in excess of 10,000 chickens in each shed. The internal layout of conveyors, feeders, and compartmental fences etc. can be reconfigured depending on the requirements of operation at the time (chicken rearing or egg production).
- 2.3 The sheds have two distinct areas: the majority being the area housing the chickens and a smaller “egg collection room” which also contains the control panels for the various systems and is used by staff to don and remove personal protective equipment.

Figure 1: Plan with layout for egg production (not to scale)

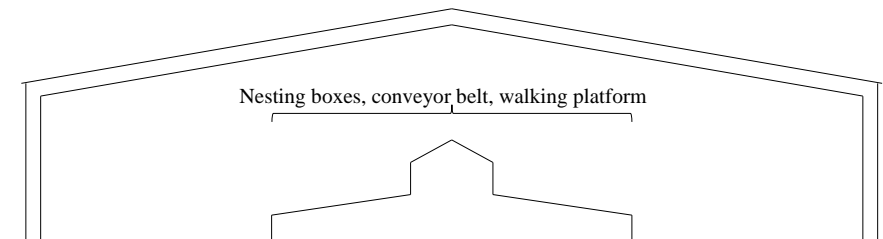


² Under section 177(1)(a) of the current Act

³ The functional requirements under Clauses D1.2.1 and F6.2 do not apply to buildings with a classified use “outbuilding”

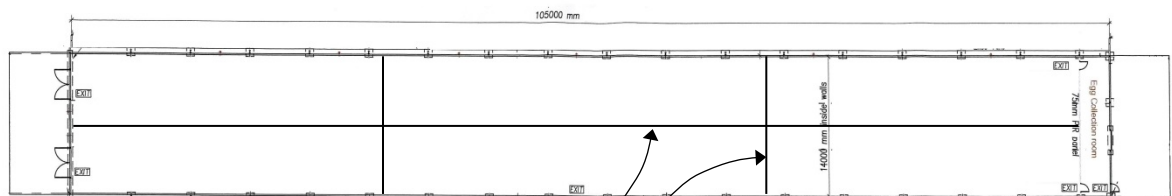
- 2.4 During egg production cycles, the area housing the chickens is largely divided down the centre by nesting boxes (see Figures 1 and 2), with a platform either side for staff to walk on. The remaining floor area occupied by the chickens is covered in wood shavings.

Figure 2: Cross section (not to scale)



- 2.5 When the poultry sheds are used for chicken rearing, the area housing the chickens is divided into compartments or “pens” using hurricane fencing (see Figure 3 below) – typically there are six pens. The fencing has wooden panels at the base to prevent chickens moving from one pen to another, and incorporates gates to allow staff to move from pen to pen including from one side of the shed to the other.

Figure 3: Plan with example of layout for rearing (not to scale)



Example of layout showing fencing of “pens”

- 2.6 Based on the information provided in the submissions and to Ministry officials during the site visit, the intended occupation of the sheds is as follows:

Egg Collection room

- One person occupies the egg collection room during working hours; collecting and cleaning the eggs, and placing them in trays for collection.

Area housing chickens

- One staff member carries out a ‘walk through’ at least once every 24 hours, which is the minimum required to meet the code of welfare for the chickens.
- Staff present as/when necessary for maintenance and repair of equipment.
- Four to six staff present for a full day when the chickens are graded, and again when they are inoculated (both of which occur once during the rearing cycle).
- Once the production cycle is complete (approximately 47 weeks), staff enter the building to carry out cleaning, disinfecting, re-setting of equipment and re-stocking.

3. The background

- 3.1 On 1 March 2017 the authority contacted the Ministry to seek advice on the classified use of the proposed buildings and the requirements relating to specified systems. An officer of the Ministry provided an opinion that the proposed poultry sheds were not outbuildings and would fall under the Risk Group WB⁴, and that if any specified systems were installed in the building a compliance schedule would be required.
- 3.2 It appears that the design consultant also contacted the Ministry for an opinion, specifically in regards to the lighting system and mechanical ventilation. An officer of the Ministry provided their opinion in an email on 23 March 2017 that (in summary) the proposed lighting system would be essentially performing the same function as an emergency system. The officer referred the design consultant to the guidance available from the Ministry in the form of the Compliance Schedule Handbook and suggested a determination be sought if the matter remained unresolved between the parties.
- 3.3 It appears that the authority sought further clarification from the Ministry regarding the requirements relating to specified systems. An officer of the Ministry provided their opinion in an email on 29 March 2017, which said (in summary): the requirements under the Act relating to specified systems applied; the building was not a household unit and there are no exemptions for any other type of building or for the use of the building as proposed; and there are no exemptions if the systems are covered by other legislation.

4. The submissions and the first draft determination

- 4.1 The Ministry received an application for a determination on 13 April 2017. The applicant provided copies of the plans for the proposed poultry sheds and submissions from both the design consultant and PIANZ.
- 4.2 On 21 April 2017 the applicant confirmed they also sought clarification regarding whether access for people with disabilities is required to the proposed poultry sheds. The applicant then provided a submission on 2 May 2017 on this matter.
- 4.3 On 20 April 2017 the authority provided a submission in response to the application for determination, along with copies of relevant correspondence with the Ministry, a document titled 'Air requirement of poultry and poultry shed ventilation design', a fire design report from the design consultant (based on the proposed buildings falling under the Risk Group SH⁵), preliminary drawings showing ventilation, plans and detail drawings.
- 4.4 The authority advised that the building consent had not been released pending resolution of the matters set out in the authority's submission. The authority noted that the buildings 'do not fit easily within the Acceptable Solutions or some aspects of the [Act and its regulations]', and that buildings associated with this type of operation have over the years moved away from natural lighting and ventilation, and fully automated operations such as the one proposed are a relatively recent development.

⁴ "Risk Groups" are a classification used in the Acceptable Solutions for Clause C and are based around the concept of different buildings, or parts of buildings, having a different life safety risk in the event of a fire depending on the activities that will occur within the building or part of the building.

⁵ Each Risk Group has a corresponding Acceptable Solution. Acceptable Solution CAS/1 is for buildings with Sleeping (residential) and Outbuildings which fall within the Risk Group SH.

- 4.5 The authority made a further submission on 4 May 2017 regarding accessibility, noting that it had not been raised in regards to the building consent for the proposed sheds because the number of staff involved in the operation is less than 10, but that the issue may be of interest for other types of consent applications involving production facilities with more than 10 staff. The authority agreed that it would be difficult for a person with an ambulatory disability to work in the buildings. The authority reiterated that the physical obstacles in the building needed to be considered in relation to emergency lighting and whether the lighting was a specified system.
- 4.6 A draft of this determination was issued to the parties and persons with interest on 30 May 2017. The applicant's agent responded on 14 June 2017, providing submissions from: the design consultant (dated 5 June 2017); PIANZ (dated 30 May 2017); and the applicant (undated). The authority made its submission by email on 21 June 2017.
- 4.7 I have provided a summary of the various submissions received in the table below:

Topic	
From	Submission
General	
Design consultant	In the process of obtaining building consents for other similar poultry sheds, two building consent authorities have interpreted the Act and its regulations as requiring: Access for people with disabilities Emergency lighting systems Requirements for compliance schedules relating to: SS4 – Emergency lighting systems SS9 – Mechanical ventilation systems SS14/1 – Emergency power systems SS14/2 Signs for SS1 – SS13, and SS15/4 Signs for communicating information intended to facilitate evacuation SS5/2 – Final exits
Classified use	
PIANZ	The nature of the sheds is similar to a farm outbuilding.
	The draft determination does not address the specialist industry issues for this unique but important industry and the implications would add significant costs to the industry.
	No example has been brought to the attention of PIANZ or EPFNZ ⁶ of any concerns relating to lighting, ventilation, exits, etc.
Design consultant	The classified use is relevant to the compliance requirements and although the design consultant does not dispute the classification or Risk Group, the poultry sheds should be recognised as akin to a "farm outbuilding" which would allow exemption from particular requirements.
	The poultry sheds do not properly fall within the classified use "industrial" because they are not a space 'where people use material or physical effort to: a) extract or convert natural resources, b) produce goods or energy from natural or converted resources,...' etc.
	The poultry sheds can be justified as being a space not for human habitation, and the classified use "outbuilding" is appropriate. If the sheds are classified as "industrial" buildings, then this classification would include the likes of milking sheds, grain silos, or even bulk fuel storage tanks, because people are required to enter these spaces on occasion for the purposes of inspecting, maintenance or cleaning.
	The poultry sheds are importance level 1 buildings, as they are low risk to human life.

⁶ Egg Producers Federation of New Zealand

	The poultry farm as a whole falls under the Risk Group WB (Working Business) under the Acceptable Solutions for Clause C
	The poultry farm has a use category WL (Working Low) ⁷ under Schedule 2 of the Regulations.
	Staff are only required to walk through the sheds a minimum of once daily for the purpose of meeting the requirements of Animal Welfare Legislation.
	It is unclear what the authority means by 'high intensive indoor farming operation' and how the authority reached this definition.
	These facilities have operated for many years without the need for compliance controls.
	While the proposed sheds are not a fully compliant Acceptable Solution, they should be considered as an alternative solution.
	Imposing the regulations for specified systems and compliance schedules on the sheds will have long reaching implications to the industry as a whole and particularly to small independent operators. It will also have ramifications on other agricultural facilities in the wider farming community.
Authority	The poultry sheds are used for the primary activity of indoor farming of poultry; they are not accessory to, ancillary to, nor are they an outbuilding to any other primary activity.
	When the poultry sheds are fully stocked staff are required to enter at various times over a 24 hour period. Staff are also required periodically to de-stock, remove all litter and waste, clean, disinfect, and restock for the next cycle.
	Based on submissions the authority understands that staffing levels and involvement are dependent on the farming operation at the time (breeding, laying and egg collection, cleaning and restocking).
	The poultry sheds are high intensive indoor farming operations (based on the area and number of stock units). It is the authority's view that the poultry sheds fall under the classified use "Industrial".
Applicant	Staff work only 8 hours and one shift a day, which matches with the light program (dark periods are a block of up to 16 hours a day).
	There is no definition for 'high intensive indoor farming' in New Zealand.
Specified systems/compliance schedule (General)	
PIANZ	The Codes of Welfare developed by the National Animal Welfare Advisory Committee ("NAWAC") set Standards for animal welfare and a key feature of meeting those standards includes the design of the sheds and the incorporated equipment.
	The Code of Welfare ⁸ requires a minimum once daily check by a walk through, however the shed systems are computer managed. The Code of Welfare also requires the poultry sheds to have a backup generator in case power is lost. The sheds are also designed to be fire resistant.
	The computerised systems incorporate a high degree of monitoring and control over temperature, feed, water, ventilation, and weighing of the birds. The computer systems are generally accessible in the farm office and even off-site. Many also include cameras that enable a visual check using a mobile phone.
	Company policy, animal welfare legislation and industry practice all ensure that monitoring and maintenance of systems are in place, and PIANZ considers it unnecessary to have additional compliance requirements under the Act relating to lighting, ventilation, power, and exits etc.
Design Consultant	Under the Act, a specified system is a system or feature that is contained within a building for the primary purpose of maintaining health or life safety of building users i.e. fire alarm, sprinkler, mechanical ventilation, etc.
	As these poultry sheds are an intermittently occupied space [as described in the

⁷ Use categories in Schedule 2 of the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005 are relevant to the provisions of the Act relating to a change of use.

⁸ *Animal Welfare (Meat Chickens) Code of Welfare* (26 July 2012) issued under the Animal Welfare Act 1999

	<p>submission] and not for human habitation, there are no requirements to list the associated operational equipment as specified systems under the Act; i.e. they are not present for the purpose of human occupation.</p> <p>Maintenance and reporting is already an ongoing requirement of the management, Ministry for Primary Industries, PIANZ and NAWAC administration.</p>
Authority	<p>Previous advice offered by the Ministry in relation to this proposed building work was that there was no exemption for systems that are in some way covered by other legislation.</p> <p>The following systems would require a compliance schedule:</p> <ul style="list-style-type: none"> • Emergency lighting (SS4) • Mechanical ventilation (SS9) • Emergency power systems (SS14/1)
Specified systems – Mechanical ventilation (Clause G4)	
Design Consultant	<p>In regards to the mechanical ventilation and air conditioning system, the design consultant referred to the Ministry's Compliance Schedule Handbook⁹, and stated that three of the four 'criteria' set out in the scope (refer Appendix A.4) do not apply to the system proposed for the poultry sheds.</p> <p>In regards to the 'criterion' in A.2: the outdoor air is supplied and tempered for the welfare of the chickens, not for a person to reside in the space, and during 'non-chicken' periods all available doors are open and this would provide sufficient ventilation for any staff to be present without the need for mechanical supplement.</p> <p>The ventilation is computer controlled with automated analysis and any malfunction or operation outside of set parameters will trigger an alarm.</p> <p>There would be dramatically less dust present in the sheds than in say a mill.</p> <p>The mechanical system has automatic sensors throughout each shed to check the CO₂ levels and adjusts air inflow accordingly and automatically opens shutters if required to ensure the quality of the air.</p> <p>When staff are present for cleaning after chickens have been removed, all doors and vents are open – this will provide sufficient ventilation during this process.</p> <p>Staff are required to wear appropriate personal protective equipment depending on the task undertaken.</p>
Authority	<p>Ventilation is automatically controlled based on sensors that monitor CO₂, odour (ammonia), air temperature, and humidity etc., based on the requirements relating to welfare of poultry. There is no consideration for airborne particles (dust).</p> <p>The opinion submitted that adequate outside air may be available to people in the building based on the average (tidal) lung volumes of poultry and people has not been verified. If the determination considered this approach acceptable in principle, the authority would require an external review.</p> <p>It is not clear whether the automated ventilation system is operational when staff are working in the buildings, and it appears that the extract fans and inlet vents default to the closed position when not operating.</p> <p>The whole of the floor is covered with sawdust to a depth of 75mm, and the authority is of the view that a considerable amount of dust would be generated. This with the inclusion of defecated waste matter and ammonia would produce a highly irritable environment, particularly during removal/replacement between cycles. Given the environment it would be essential for the mechanical ventilation to be operating – even with all the doors and inlet apertures open there would not be sufficient natural ventilation to conform to G4/AS1. Any mechanical system would be captured by the scope of SS9, A2.1, "outdoor air" of the compliance schedule handbook, and is therefore a specified system requiring a compliance schedule.</p>
Applicant	<p>60-70% of floor surface has a slat system. For the remaining 30-40% of the area the floor covering is kiln-dried, dust extracted clean wood shavings to a maximum of 50mm</p>

⁹ Compliance Schedule Handbook, 1st edition, amendment 3 (Published on 14 February 2014 and available on the Ministry's website)

	depth.
	The temperature of the sheds reduces uric acid breakdown, leading to less ammonia. The computer controlled ventilation has probes for temperature, humidity and CO ₂ . The legal limit for CO ₂ is 5000ppm for a human workplace, and the maximum level for this operation is 3000ppm.
	The air exchange never stops. When the shed is empty all the air inlets and doors are open for cleaning and drying purposes.
Specified systems – Emergency lighting (Clause F6)	
Design consultant	The emergency back-up power generated on site will provide adequate visibility in the event of mains failure and additional emergency lighting is not necessary.
	The lights can be turned on manually if staff are required to enter during a period of darkness.
Authority	The inlet ventilation apertures have “light traps” designed to have maximum “light-tightness”. Artificial lighting is therefore a critical component of production management.
	Without additional doors to reduce the travel distance, emergency lighting is necessary for compliance.
	The applicant maintains that the proposed operational lighting system satisfies the requirements relating to emergency lighting, and there is back-up power generation should there be a power failure – the authority has suggested that this could be presented as the emergency lighting for the purpose of a compliance schedule. However, it isn’t clear whether the operational lighting system meets the performance criteria of the Building Code.
	Visibility in escape routes is a requirement of the Building Code, and therefore a requirement under section 100 of the Act and a compliance schedule requirement.
Applicant	Staff are trained to deal with power outages and are provided with a headlight.
	The generator back-up system comes on in less than 10 seconds and is designed to run the whole of the automated system, including lights, ventilation, and feeding and drinking systems.
Clause C4 & Clause F6	
Authority	The building configuration can be altered depending on the type of product being farmed (e.g. breeder, broiler, laying, rearing etc). In this regard travel distances and times can vary depending on the layout of conveyers, cages, feeders, compartmental fences etc. The obstructions would require adequate light to negotiate.
	The authority has requested clear layouts of the various configurations, though this has not yet been provided.
	If the poultry sheds were classified as an “outbuilding” there would be no limit on travel distances.
	The plans show only one exit door along the length of the building on one side only. If walking in a straight line, such as in an empty building, travel distances would still exceed F6.3.1 and would be marginal under C/AS5.
	“Specified features”, for the purpose of clause F6, would include building elements (such as nesting cages, compartmental fences) and changes in direction. The authority suggests additional exit doors be located along the length of the building on both sides to reduce the travel distances and the issues raised by internal obstructions.
	Clarification is required on the point from which the distance of travel is measured; in this case the machinery/nesting cages are centrally located along the length and the location of the exit door is mid-way on one side only.
Design consultant	All shed layouts are provided as part of the consent application.
	The fire design escape routes shown on the fire safety plans use straight line paths and 90° turns, allowing for any obstructions in the open path.
	There is no greater than 60m to any available exit, as stipulated in the Acceptable

	Solution C/AS5.
Applicant	Configuration of the sheds (equipment layout) can change from batch to batch or even during a batch.
	The applicant provided a description of the types of layout changes necessary for different production types, and queried what the process would be for these types of shed equipment and pen configuration changes.
Accessibility	
Applicant	The nature of the working environment, necessary biosecurity measures, and tasks required of employees precluded people with ambulatory disabilities working in the poultry sheds.
Design consultant	The performance requirements in Clause D1 do not apply to the poultry sheds 'due to the nature of the operation, as they are not applicable under section 118 ... or listed under Schedule 2, and no more than 10 people are employed.'
Authority	While the matter of accessibility had not been raised as an issue in this building consent application, discussion on the application of the requirements relating to accessibility would be of interest for future applications.
	The authority agrees that the proposed layout of the buildings is such that it would be extremely difficult for a person who was not ambulant to work or visit in the buildings.
	Any 'concession' for accessibility for the poultry sheds should not be considered as including any associated administration building(s).

4.8 The site visit and second draft determination

- 4.8.1 At the suggestion of PIANZ, on 12 July 2017 the previous Manager Determinations ("the Manager") carried out a site visit at the property to view the buildings and get a better understanding of their operation and occupancy. The Manager was accompanied by an officer of the Ministry, and present at the visit were representatives of the design consultant, the applicant, the authority, PIANZ, and an equipment supplier.
- 4.8.2 The people present were able to view the three poultry sheds under construction¹⁰, one of which was complete with the equipment in place to go into service for egg production. They were also able to view another existing building on the property to gain a better understanding of the difference in equipment and layout for rearing. During the site visit the applicant clarified issues relating to the operation and occupation of the buildings, and that information has been incorporated into paragraph 2 of this determination.
- 4.8.3 A second draft was then issued to the parties and persons with an interest on 7 August 2017.
- 4.8.4 On 10 August 2017 PIANZ requested an extension of time in which to make a submission on the matter. The submission from PIANZ was received on 4 September 2017 (in summary):
- The scope of the determination does not extend to how the buildings will comply with Clause G4 – Ventilation, and correctly notes that it is for the applicant to provide sufficient information to the authority.
 - The proprietary climate control system is not mechanical ventilation, and the meaning of "mechanical ventilation" must be interpreted in light of the purpose of the Act.

¹⁰ The authority had agreed to issue the building consent on the understanding between the parties that any alterations required as a result of the determination outcome would be addressed in due course either by way of an amendment to the consent or a new building consent.

- The proprietary climate control system does not and is not required to comply with NZS air change standards; these systems do not provide air flow or change systems for the health and well-being of persons that use buildings. PIANZ expressed concern that the determination conflates the control system in this respect.
- PIANZ understands that the doors of the buildings provide sufficient openable space and outdoor airflow to comply with Clause G4.
- PIANZ seeks clarification that the purpose of the lighting in the subject buildings are not emergency lighting, but that it is open to the applicant to provide the lighting as a means of meeting Clause F6, or to propose a different solution to achieve compliance.
- PIANZ maintains that the application of the reasoning in the draft determination regarding the intermittent occupation would place the buildings within the category of “intermittent use” but for the occupation of the egg-room in the subject buildings.

4.8.5 On 8 September 2017, the applicant’s agent advised that it considered the submission from PIANZ as ‘part of the [applicant’s] submission’; no further submission was received.

4.8.6 The authority made a submission on 14 September 2017 (in summary):

- It acknowledged the ventilation system is designed for the needs of the poultry, but considered that the integral mechanical ventilation system could be presented as a means of complying with Clause G4 – this would require formal evaluation and would mean the system would then be a specified system.
- It did not accept that there was sufficient natural ventilation available through doors and inlet apertures to meet the performance requirements of the Building Code; the mechanical fan units have not been considered as they default to closed when inoperative.
- It expressed concern regarding fumes from the use of a tractor inside the building during the cleaning phase.
- It noted that where the building configuration requires the installation of emergency lighting, or lighting that functions as emergency lighting, this would be a specified system.
- It noted that it is critical that the automated systems function in the event of a power failure, and accordingly the back-up generator is then also a specified system as it ensures continuity of lighting.

4.8.7 The design consultant did not make a submission in response to the second draft.

5. Discussion

5.1 The various use categorisations in the regulations

5.1.1 There are a number of different categorisations of buildings used in or for the purpose of the Act, the Regulations and the Building Code that are relevant in establishing regulatory obligations and how a building will comply. Some of these categorisations include:

- Classified uses, such as Housing, Commercial, Industrial, etc. defined in Clause A1 of the Building Code for the purpose of applying the performance requirements of the Building Code.
- The uses set out in Schedule 2 of the Regulations that are relevant to sections 114 and 115 of the Act which concern upgrade work that may be required when the uses of buildings are changed.
- Risk Groups used in the Acceptable Solutions for the C Clauses (C/AS1 to C/AS7) which relate to design features that provide adequate warning, performance of building elements in a fire event, the time taken for people to evacuate safely, and facilitation of firefighting and rescue.

5.1.2 The categories are broadly grouped based on: the activities carried out in the building (or part of the building), the level of occupation, the fire load, and the occupants' ability to respond to a fire event. The principles that underpin these classifications primarily concern the safety of people and the provision of access and amenities.

5.1.3 The table below shows the groups within these categories:

Table 2

Building Code Clause A1 Classified Use	Schedule 2	Risk Groups
<u>Communal non-residential</u> (a meeting place where care and service is provided)	Crowd activities (includes small, large, open, and medium)	Buildings with public access and educational facilities (CA)
<u>Housing</u> (self-care and service) <u>Communal residential</u> (assistance or care is provided)	Sleeping activities (includes care, detention, accommodation, residential, and single home)	Sleeping (residential) and outbuildings (SH), Sleeping (non-institutional) (SM), Buildings where care or detention is provided (SI)
<u>Commercial</u> (goods or services developed/sold/exchanged/stored) <u>Industrial</u> (extract or convert resources, or produce, repair or store goods)	Working, business, storage activities	Buildings used for business, commercial and low level storage (WB), ... for high level storage and other risk purposes (WS)
<u>Ancillary</u> (not for human habitation and exempt from some amenity provisions)	Intermittent activities (spaces for intermittent occupation or providing intermittently used support functions)	
<u>Outbuildings</u> (not intended for human habitation, may be included within each classified use)		Buildings used for vehicle storage and parking (VP)

5.2 The classified use of the poultry sheds

5.2.1 Establishing the correct classified use is central to the dispute between the parties. The applicant in this case is of the view that the proposed poultry sheds, as farm buildings, can be considered as “outbuildings”. The authority maintains the view that the poultry sheds are more correctly classified as “industrial” buildings.

5.2.2 The definitions for each of these classified uses is as follows:

Clause A1 – Classified uses

6.0 Industrial

6.0.1 Applies to a building or use where people use material and physical effort to:

- (a) extract or convert natural resources,
- (b) produce goods or energy from natural or converted resources,
- (c) repair goods, or
- (d) store goods (ensuing from the industrial process).

Examples: an agricultural building, agricultural processing facility, aircraft hanger, factory, power station, sewage treatment works, warehouse or utility.

7.0 Outbuildings

7.0.1 Applies to a building or use which may be included within each classified use but are not intended for human habitation, and are accessory to the principal use of associated buildings. Examples: a carport, farm building, garage, greenhouse, machinery room, private swimming pool, public toilet, or shed.

5.2.3 The classification of the poultry sheds under Clause A1 has the effect of establishing which performance clauses of the Building Code the building must comply with. For example:

- Clause F6.2 relating to visibility of specified features in escape routes does not apply to outbuildings
- Clause H1.2(a) relating to energy efficiency does not apply to outbuildings nor industrial buildings
- Clause G3.3.6, which concerns protection from contamination by vermin and prevention of contamination spreading, applies to industrial buildings whose intended use includes the handling of perishable food, the medical treatment of humans or animals, the slaughter of animals or the reception of dead bodies.

(Refer to Appendix A.5 for a table of clauses and limits on application that apply to outbuildings and industrial buildings)

5.2.4 It is not always obvious which classified use (or other categorisations) a building will come under, as the activities that occur within the building may not neatly fit into those described or given as examples. However, I consider that the principles on which the categorisations have been grouped remains relevant and can be used to establish the various use categories for buildings and in interpreting the examples given for those categories.

5.2.5 The purpose of the Building Act centres on the safety, health, and well-being of people using buildings and ensuring that people can escape from buildings in the event of fire (refer Appendix A.1). While the poultry sheds are primarily occupied by chickens, people are required to be present in the buildings: handling eggs in the egg collection room, monitoring the chickens, repairing and maintaining equipment,

- grading the chickens, carrying out inoculations, and cleaning and preparing the buildings between cycles.
- 5.2.6 The level of occupancy in the poultry sheds varies depending on the production type (rearing or laying) and the stage of the production cycle. It is notable that: during egg production cycles a person is present in the egg collection room daily during working hours; a number of people will be present in the area housing the chickens for an entire day on the days when chickens are being inoculated or graded; and at least once every day one person must carry out a “walk through” in the area the chickens are housed to monitor the health of the chickens and the functioning of the automated systems. I consider that the level of occupancy is more than would be considered “intermittent”, particularly for the production of eggs where a member of staff is always present in the egg collection room during working hours. This is in contrast to buildings classified as “outbuilding” where occupation levels are low in number and occur infrequently or irregularly.
- 5.2.7 In addition, the proposed poultry sheds that are the subject of this determination are not ‘accessory to the principal use of associated buildings’ as would be a garage, carport, shed, or an outbuilding on a farm used for the likes of storage of equipment or materials. The production of eggs and/or poultry is the primary purpose of the farming operation and the proposed poultry sheds are central to that purpose.
- 5.2.8 The correct classified use for the proposed poultry sheds in this case is “industrial”: the buildings are used by people who tend to the poultry and operation of the equipment, and within the buildings material and physical effort is used to produce goods (eggs and/or poultry). At least one person will occupy the building during working hours for egg production cycles, and while people will not occupy the buildings continuously during rearing cycles, this does not in itself preclude the buildings being classified as industrial. The proposed poultry sheds fall within the examples given for an industrial building as an “agricultural building” or “agricultural processing facility”.
- 5.2.9 This approach is supported by the performance requirements as they relate to outbuildings and industrial buildings (refer paragraph 5.2.3). In particular I refer to the clauses concerning food products; these do not apply to outbuildings but are relevant to the proposed poultry sheds where the primary activity is the production of food products. I note further that this aligns with the categorisation of the poultry sheds under Risk Group WB for the purpose of the Acceptable Solutions for the C Clauses of the Building Code, as well as under the uses defined in Schedule 2 of the Regulations.
- 5.2.10 The design consultant has stated that if the poultry sheds are classified as “industrial”, then that classification would also include the likes of milking sheds, grain silos, or even bulk fuel storage tanks because people would be present from time to time for the purpose of inspection, maintenance, cleaning or the like.
- 5.2.11 I do not agree with the design consultant’s view in this matter. It does not follow that because the poultry sheds are classified as industrial buildings that the intermittent occupation of other buildings for the purpose of inspection, maintenance, cleaning or the like means that those would also be classified as industrial. For example public toilets, which are one of the examples in the classified use “outbuilding”, are occupied intermittently by members of the public and are also occupied during cleaning and maintenance. The intermittent and periodic occupation of public toilets does not exclude those buildings from being classified as an

“outbuilding”. In the case of the poultry sheds however I have concluded that the occupancy is more than can be considered intermittent or occasional.

5.3 The specified systems and compliance schedule

- 5.3.1 Section 100 of the Act requires a building that is not used wholly as a single household unit to have a compliance schedule if that building has a specified system, and the compliance schedule must be for all of the specified systems the building has.
- 5.3.2 Section 7 of the Building Act provides the definition for “specified system” as follows:
- specified system—
- (a) means a system or feature that—
- (i) is contained in, or attached to, a building; and
- (ii) contributes to the proper functioning of the building (for example, an automatic sprinkler system); ...
- 5.3.3 Section 4 of the Regulations defines the systems or features prescribed as specified systems for the purposes of the Building Act as those specified in Schedule 1 of the Regulations (refer Appendix A.2). Included in the schedule are:
- 4 Emergency lighting systems.
- 9 Mechanical ventilation or air conditioning systems.
- 14 Emergency power systems for, or signs relating to, a system or feature specified in any of clauses 1 to 13.
- 5.3.4 Put simply, the design consultant suggests that as the proposed poultry sheds are only intermittently occupied by staff and the operational systems are primarily for the purpose of the welfare of the poultry rather than people, the systems should not be subject to the provisions of the Act relating to specified systems.
- 5.3.5 I disagree with the design consultant’s views on this matter. While the buildings are primarily for the housing of poultry, people are also present in the buildings to carry out a variety of tasks associated with the welfare of the poultry and the operation of the facility. Two of the primary purposes of the Act and its regulations are to ensure that those people entering the poultry sheds can do so safely and without endangering their health, and that they can escape from the building in a fire event.
- 5.3.6 The design consultant and PIANZ have also referred to requirements under Codes of Welfare for the management, monitoring and maintenance of the operational systems, and put forward the view that satisfying those requirements should be accepted as meeting the requirements under the Act relating to compliance schedules and building warrant of fitness. Submissions have also referred to the costs likely to be incurred by complying with the requirements for specified systems and compliance schedule.
- 5.3.7 While I acknowledge that the compliance requirements come at a cost, there is no provision in the Act to waive the provisions relating to compliance schedules and building warrant of fitness where the specified systems are subject to other legislation. I note also that the requirements set out in the Codes of Welfare for animals under the Animal Welfare Act do not necessarily cover the requirements under the Act that relate to people in buildings.

- 5.3.8 The mechanical ventilation, emergency lighting, and emergency power are contained in or attached to the building and contribute to the proper functioning of the building and therefore meet the definition of a specified system. Accordingly, I conclude that the proposed poultry sheds require a compliance schedule for all of the specified systems within or attached to the buildings.
- 5.3.9 As I have concluded that the classified use of the proposed poultry sheds is “industrial” it is for the applicant or design consultant to provide sufficient information for the authority to be satisfied on reasonable grounds that the poultry sheds will comply with the relevant clauses of the Building Code. I offer the following comment to the parties to consider and in response to some points raised in the submissions.

Mechanical ventilation

- 5.3.10 PIANZ have put forward the view that the specified proprietary climate control system is not “mechanical ventilation” for the purpose of the Act, noting that it does not provide air flow or change systems ‘for the health and well-being of persons that use buildings’, and PIANZ understood that the doors of the buildings provide sufficient openable space and outdoor airflow to comply with Clause G4.
- 5.3.11 While I acknowledge that the specified climate control system is primarily for the welfare of the chickens, there is an obligation under Clause G4 for the sheds to have ‘adequate ventilation consistent with their maximum occupancy and their intended use’ and there appears to be no other ventilation system proposed in the plans. The authority has accepted the climate control system could be used as a means of achieving compliance with Clause G4, though this would be subject to a formal evaluation.
- 5.3.12 In regards to the use of open doors to provide ventilation, it is my understanding that the doors to the area housing the chickens would only be opened for ventilation during the period of time when the sheds are being cleaned and disinfected; meaning that during the rest of the production cycle the doors cannot be used as a means of providing ventilation to this area. Given that people will be present in this area daily during the production cycle, and people will also be present in the egg collection room, the two areas of the building must be sufficiently ventilated to meet the performance requirements of Clause G4.

Emergency lighting

- 5.3.13 The design consultant has stated that the emergency back-up power generated on site is incorporated in the design primarily for the welfare of the chickens, but that it would provide adequate visibility in the event of mains failure and that in his view additional emergency lighting is not necessary.
- 5.3.14 While the system is primarily in place for the welfare of the chickens, this does not necessarily preclude it from being considered for the purpose of providing emergency lighting required by the Building Code. The means of achieving the performance requirements of the Building Code are for the applicant to propose and the authority to consider.
- 5.3.15 The authority has accepted consideration of the lighting and emergency back-up power system as meeting the requirements relating to emergency lighting. Verification of the emergency back-up power supply to lighting will be required to ensure that it meets the performance requirements of Clause F6.3.2 of the Building

Code, particularly in regards to the time taken for lighting to be restored, and I leave this to the parties to resolve in due course.

5.4 Access and facilities for people with disabilities

5.4.1 While not a matter in dispute between the parties in this instance, clarification has been sought regarding the provision of access and facilities for people with disabilities to the poultry sheds.

5.4.2 Section 118 of the Act provides:

(1) If provision is being made for the construction or alteration of any building to which members of the public are to be admitted, whether for free or on payment of a charge, reasonable and adequate provision by way of access, parking provisions, and sanitary facilities must be made for persons with disabilities who may be expected to—

(a) visit or work in that building; and

(b) carry out normal activities and processes in that building.

2) This section applies, but is not limited, to buildings that are intended to be used for, or associated with, 1 or more of the purposes specified in Schedule 2.

5.4.3 The proposed poultry sheds are new buildings to which staff will be admitted to work and carry out normal activities and processes. Schedule 2 sets out the buildings in respect of which requirements for provision of access and facilities for persons with disabilities apply, and includes:

(y) factories and industrial buildings where more than 10 persons are employed

I read this to mean that section 118 does not apply to industrial buildings where fewer than 10 people are employed. The limits on application for Clause D1.3.2 also state that clause does not apply to industrial buildings where fewer than 10 people are employed.

5.4.4 I have concluded that the proposed poultry sheds have a classified use “industrial”, and as the design consultant has confirmed that no more than 10 people would be employed in the poultry sheds, I conclude that section 118 and Clause D1.3.2 do not apply to the poultry sheds.

5.4.5 The authority has correctly stated that any conclusion reached on the application of the provisions under section 118 of the Act for the proposed poultry sheds should not be applied to other buildings with other uses that form part of the farming operation.

5.5 Other

5.5.1 The authority has requested clarification regarding the point from which the distance of travel is measured, for the purpose of establishing compliance with Clause F6.3.1 and C4. The authority noted that the machinery/nesting cages are located centrally along the length of the building, and along the length of the building there is one exit door on one side only.

5.5.2 The functional requirement of Clause C4 – Movement to a place of safety, provides:

C4.1 *Buildings* must be provided with:

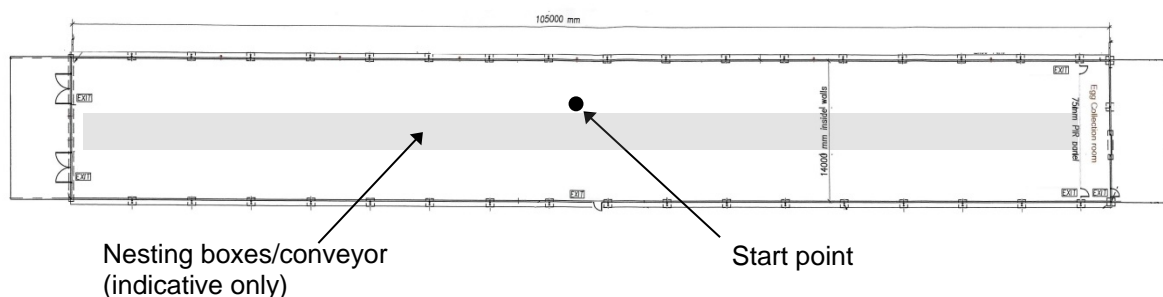
... (b) visibility in *escape routes* complying with clause F6.

- 5.5.3 Clause F6.3.1 requires specified features in escape routes be reasonably visible when the systems for visibility are at their design level. The limits on application to Clause F6.3.1 state:

Performance F6.3.1 does not apply to *specified features* in the initial 20 metres of an *escape route* if the risk of injury, or impediment to movement of people, due to the *specified features* not being visible is low (for example, because people are familiar with the *escape route*, the *escape route* is level, and people do not require assistance to escape).

- 5.5.4 Based on the start points for the measurement of escape route travel distance set out in Appendix D of F6/AS1¹¹ and the travel distances on escape routes set out in Table 3.2 of C/AS5¹², the ‘start point’ for measuring the initial 20 metres of the escape route in the proposed poultry sheds is mid-way along the length on the side of the nesting boxes where the exit doors are at the end of the building (see Figure 4 below). I note also that the nesting boxes, conveyor belts, fencing of the pens etc. will need to be taken into account when establishing the defined escape route.
- 5.5.5 The applicant has confirmed that the configuration of the sheds can change from batch to batch or even during a batch, and has questioned what process is to be used to take account of these changes.
- 5.5.6 The Building Code prescribes functional requirements for buildings and the performance criteria with which buildings must comply in their intended use (see section 16 of the Act). The term “intended use” includes ‘any reasonably foreseeable occasional use that is not incompatible with the intended use’. Accordingly the fire safety design report should address typical variations of the layout for the purpose of the designed escape route and in particular the worst case variation from a fire safety perspective.

Figure 4: Plan showing start point (not to scale)



- 5.5.7 The design consultant has stated that as the poultry shed designs do not fully comply with the Acceptable Solutions the design should be considered as an alternative solution. Acceptable Solutions are not mandatory and it is for the applicant to elect the method by which the design will achieve the performance requirements of the Building Code. The Ministry’s website has further information on providing evidence to support building consent applications for alternative solutions¹³.

¹¹ Acceptable Solution F6/AS1 Visibility in escape routes (amendment 4, effective 1 January 2017)

¹² For buildings that fall within Risk Group WB, the relevant Acceptable Solution is C/AS5: Acceptable Solution for Buildings used for Business, Commercial and Low Level Storage (Risk Group WB) (amendment 3, effective 1 July 2014)

¹³ See <https://www.building.govt.nz/building-code-compliance/how-the-building-code-works/different-ways-to-comply/alternative-solutions/>

6. The decision

6.1 In accordance with section 188 of the Building Act 2004, I hereby determine that:

- the classified use of the proposed poultry sheds is “industrial”, and as no more than 10 people are employed in the sheds, the poultry sheds without access and facilities for people with disabilities will comply with the Building Code in this respect, and
- the mechanical ventilation, emergency lighting, and emergency power generation are specified systems, and accordingly the poultry sheds without a compliance schedule will not comply with the Building Act.

Signed for and on behalf of the Chief Executive of the Ministry of Business, Innovation and Employment on 25 September 2017.

Katie Gordon
Manager Determinations

Appendix A: Building Act, Regulations, and guidance documents

A.1 The relevant sections of the Building Act 2004 discussed in this determination

3 Purposes

This Act has the following purposes:

(a) to provide for the regulation of building work, the establishment of a licensing regime for building practitioners, and the setting of performance standards for buildings to ensure that—

(i) people who use buildings can do so safely and without endangering their health; and

(ii) buildings have attributes that contribute appropriately to the health, physical independence, and well-being of the people who use them; and

(iii) people who use a building can escape from the building if it is on fire; ...

100 Requirement for compliance schedule

(1) A building not used wholly as a single household unit—

(a) requires a compliance schedule if—

(i) it has a specified system; ...; and

(b) requires the schedule for all specified systems it has ...

118 Access and facilities for persons with disabilities to and within buildings

(1) If provision is being made for the construction or alteration of any building to which members of the public are to be admitted, whether for free or on payment of a charge, reasonable and adequate provision by way of access, parking provisions, and sanitary facilities must be made for persons with disabilities who may be expected to—

(a) visit or work in that building; and

(b) carry out normal activities and processes in that building.

(2) This section applies, but is not limited, to buildings that are intended to be used for, or associated with, 1 or more of the purposes specified in Schedule 2.

A.2 The relevant clauses of the *Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations 2005*

Clause 4 Systems or features prescribed as specified systems

The systems or features specified in Schedule 1 are specified systems for the purposes of the Act.

Schedule 1 Specified systems

1 Automatic systems for fire suppression (for example, sprinkler systems).

2 Automatic or manual emergency warning systems for fire or other dangers (other than a warning system for fire that is entirely within a household unit and serves only that unit).

3 Electromagnetic or automatic doors or windows (for example, ones that close on fire alarm activation).

4 Emergency lighting systems.

- 5 Escape route pressurisation systems.
- 6 Riser mains for use by fire services.
- 7 Automatic back-flow preventers connected to a potable water supply.
- 8 Lifts, escalators, travelators, or other systems for moving people or goods within buildings.
- 9 Mechanical ventilation or air conditioning systems.
- 10 Building maintenance units providing access to exterior and interior walls of buildings.
- 11 Laboratory fume cupboards.
- 12 Audio loops or other assistive listening systems.
- 13 Smoke control systems.
- 14 Emergency power systems for, or signs relating to, a system or feature specified in any of clauses 1 to 13.
- 15 Any or all of the following systems and features, so long as they form part of a building's means of escape from fire, and so long as those means also contain any or all of the systems or features specified in clauses 1 to 6, 9, and 13:
 - (a) systems for communicating spoken information intended to facilitate evacuation; and
 - (b) final exits (as defined by clause A2 of the building code); and
 - (c) fire separations (as so defined); and
 - (d) signs for communicating information intended to facilitate evacuation; and
 - (e) smoke separations (as so defined).

A.3 Relevant clauses of the Building Code discussed in this determination

Clause A1 – Classified Use

6.0 Industrial

6.0.1 Applies to a building or use where people use material and physical effort to:

- (a) extract or convert natural resources,
- (b) produce goods or energy from natural or converted resources,
- (c) repair goods, or
- (d) store goods (ensuing from the industrial process).

Examples: an agricultural building, agricultural processing facility, aircraft hanger, factory, power station, sewage treatment works, warehouse or utility.

7.0 Outbuildings

7.0.1 Applies to a building or use which may be included within each classified use but are not intended for human habitation, and are accessory to the principal use of associated buildings. Examples: a carport, farm building, garage, greenhouse, machinery room, private swimming pool, public toilet, or shed.

Clause A2 – Interpretation

specified features, for the purposes of Clause F6, means the following:

- (a) building elements that may act as obstructions:
- (b) safety features required under clauses of this code other than Clause F6 (for example, handrails required under Clause D1):

- (c) changes in direction:
- (d) stairs and ramps:
- (e) escape doors:
- (f) entries to a safe place

Clause C4 – Movement to a place of safety

Functional requirement

C4.1 *Buildings* must be provided with:

...

- (b) visibility in *escape routes* complying with clause F6.

Clause D1 – Access Routes

Objective

D1.1 The objective of this provision is:

- (a) safeguard people from injury during movement into, within and out of buildings,
- (b) safeguard people from injury resulting from the movement of vehicles into, within and out of buildings, and
- (c) ensure that people with disabilities are able to enter and carry out normal activities and functions within buildings.

Limits on application

Objective D1.1(c) shall apply only to those buildings to which section 47A of the Act applies

Clause F6 – Visibility in escape routes

Objective

F6.1 The objective of this provision is to help safeguard people from injury in escape routes during failure of the main lighting.

Functional requirement

F6.2 Specified features in escape routes must be made reasonably visible by lighting systems, other systems, or both, during failure of the main lighting.

Limits on application

Requirement F6.2 does not apply to detached dwellings, household units within multi-unit dwellings, outbuildings, backcountry huts, or ancillary buildings.

Performance

F6.3.1 Specified features in escape routes must, when the systems for visibility are at their design level, be reasonably visible.

Limits on application

Performance F6.3.1 does not apply to specified features in the initial 20 metres of an escape route if the risk of injury, or impediment to movement of people, due to the specified features not being visible is low (for example, because people are familiar with the escape route, the escape route is level, and people do not require assistance to escape).

A.4 Relevant paragraphs from the Ministry's Compliance Schedule Handbook

2.0 Determining and categorising a specified system (SS)

Although the specified systems are listed in the Building (Specified Systems, Change the Use, and Earthquake-prone Buildings) Regulations, there may be situations where it is not clear whether a given system or feature is a specified system.

2.2 Further clarification

In some cases a given system or feature of a building may have aspects or characteristics of several specified systems. While the 'Scope' provided in Part 2 of the Compliance schedule content guidelines aims to assist in making that judgement, it will not always be clear. Paragraph 2.2 (2.2.1 and 2.2.2) aims to assist in making the judgements around appropriately assigning a system or feature, which has aspects or characteristics of several specified systems, to a specified system.

It is important that the owner or owner's agent discuss any uncertainties around inclusion of a system with the building consent authority.

2.2.1 Mechanical ventilation

There are four specified systems that are generally referred to as mechanical ventilation systems. Appropriate categorisation of these is necessary for the compliance schedule. The mechanical ventilation specified systems are described below to assist with the appropriate categorisation of the system or feature in question.

...

Specified system 9 – Mechanical ventilation or air conditioning systems

Mechanical ventilation or air conditioning systems have the primary purpose of ventilating or air conditioning a building in normal circumstances, or have been installed to control dust and hazardous substances.

A mechanical ventilation or air conditioning system may incorporate specialised functions that interface with the emergency warning system in the event of fire. The role of the system in fire mode must be recognised in the compliance schedule and its performance verified.

PART 2: CONTENT GUIDE

1.0 Use of this part

This part contains guidance for each of the specified systems. The information is not detailed in nature or specific to any particular system, but instead provides general guidance relating to three areas, namely 'Scope', 'Inspections' and 'Maintenance'. No information is given in respect of 'Reporting and recording' or 'Responsibility'.

The 'Scope' section provides one means of determining whether a given system or feature is a specified system and gives some examples. The 'Scope' is not exhaustive and considerations should not be limited to this when deciding if a particular system needs to be included on a compliance schedule.

A. Scope

A mechanical ventilation or air conditioning system is required to be listed on a compliance schedule where the system:

A.1. Building Code requirements

A.1.1 Is required to be installed for the purposes of the Building Code.

A.2. Outdoor air

A.2.1 Is used to deliver outdoor air to the occupants of one or more spaces that cannot be provided with adequate outdoor air from natural ventilation.

A.3. Safety

A.3.1 Or part of the system is used to collect potentially harmful material and either capture it (eg, by filtration or absorption) or discharge it to a safe place (this includes associated make-up air systems).

COMMENT:

For inspection and maintenance of laboratory fume cupboards refer to SS 11.

...

A.5 Clauses and limits on application relevant to outbuildings and industrial buildings

Clauses that <i>do not</i> apply to outbuildings:	
C3.4	materials used as internal surface linings
C5.3	providing hard stands for fire service vehicles
C5.8	access for and safety of firefighters in buildings
D1.2.1	reasonable and adequate access to enable safe and easy movement of people
F6.2	visibility of specified features in escape routes
G8.2	relating to adequate artificial lighting to enable safe movement applies to exitways
Clauses that <i>do not</i> apply to outbuildings or industrial buildings where no more than 10 people are employed	
D1.3.2	Access routes with features enabling people with disabilities to approach the building, have access to the internal space and the facilities for personal hygiene
Clauses that <i>do not</i> apply to outbuildings or industrial buildings:	
D1.3.3(h)	size of open risers in stairs
E3.3.1	thermal resistance, ventilation and space temperature of habitable spaces
H1.2(a)	energy efficiency
Clauses that <i>apply</i> to industrial buildings whose intended uses include manufacture, preparation, packaging or storage of food	
G3.2.1	hygienic storage, preparation and cooking of food
G3.3.2(b)	spaces for food preparation and utensil washing
Clauses that <i>apply</i> to industrial buildings whose intended uses include the handling of perishable food	
G3.3.1(a)	refrigeration
G3.3.1(b)	food rinsing, utensil washing and waste water disposal
Clauses that <i>apply</i> to industrial buildings whose intended use includes the handling of perishable food, the medical treatment of humans or animals, the slaughter of animals or the reception of dead bodies	
G3.3.6	protection from contamination by vermin and prevention of contamination spreading