

Building A Food Resilient Future Webinar

Compiled **BCA**-related Q&A

Q1: Does racking systems used for growing vegetables require submission to BCA?

- Racks used solely for growing of agricultural products do not require submission if the racking system do not form part of the building structural system or do not have platforms or staircases attached to it that the occupants could step on.

[If the racking system is not permanently affixed to the building structure, the system is considered an equipment or furniture of sort, and in such case, any platform or staircase or other means of access that are attached to the system will not be regulated by BCA]

Q2: For building works at HDB carparks, are my building works considered to be insignificant building works if we are not doing any structural works?

- Submission to BCA is not required if the works falls under First Schedule of the Building Control Regulations. But to be sure, please send the details of the proposed works to BCA for evaluation.

Q3: What is the height to use for 1.5x setback clearance if my greenhouse side wall height is 6m, while the roof apex is 8m?

- The height should be based on the highest height of the building. In this case, the height should be based on 8m.

Q4: Can BCA waive the Greenmark requirements for farms?

- It would be a requirement for farm structures with GFA \geq 2000 sqm to meet the minimum environmental sustainability (MES) standard which cover efficient use of resources. In contrast, Green Mark certification is voluntary.

In general, farms should have no issue in meeting the Minimum Environmental Sustainability standard and hence, there may not be a need for waiver. If there are issues meeting the minimum requirement due to limited work scope, the QP can submit his request for modification along with salient project details and score to BCA for

consideration. BCA will be pleased to meet up with the QP to discuss in more details if needed.

Q5: For projects where the proposed greenhouses qualify under BCA's First Schedule, are the areas covered under First schedule to be considered in the evaluation whether BIM submission is required? Likewise, for 'B' score?

- BIM submission is not required if the proposal consists solely of insignificant building works which do not require submission to BCA. Likewise, for B-Score. But to be sure, we will be pleased to meet up with the QP to discuss in more details if needed.

Q6: Do we still need to provide Lightning protection system at the top of the proposed greenhouse if there are already other LPS nearby, e.g. at the top of MSCP?

- The QP(Electrical) is to assess and ensure that the lightning protection system in place for all proposed/new works complies to *SS 555: 2018 Code of Practice for Protection against Lightning*. They will be required to submit the Certificate of Design & Supervision of Lightning Protection System.

Q7: Can BCA consider waiving the 12m control for ventilation openings if the space is already cross-ventilated?

- We will review waiver applications on a case-to-case basis. QPs are advised to provide a comprehensive account of the mitigating measure(s) for our review.

Compiled **SCDF**-related Q&A

Q1: I observe from the images that are shown that there is a use of tall racks of tiered vertical crops within an indoor space, presumably to increase production yield. Would there be any FSSD guidelines for sprinkler provisions especially for the different tiers of the racks? It doesn't seem commercially viable to have to provide at every tier as it can be costly for the client.

- Sprinkler system is required for building with habitable height exceeding 24m or the compartment size exceeded 8000m² and 30000m³ (refer to SCDF circular on the effective date of implementation of the revised fire safety requirements for farm structure). The design of Sprinkler system shall be in accordance with CP 52.

Q2: For existing farms under submission stage, can we adopt the new fire requirements for farms, as presented today by Maj Swee Lian today, though it will only be released in Dec 2020

- The new revised requirements will only be applicable to plans submitted to SCDF after the effective date stipulated in the circular.

Q3: For a multi storey farm that exceeds 10m, does the relaxation on OL and travel distance still be considered?

- The revised fire safety requirements is only applicable to farm structure that meet all the 4 criteria mentioned in the presentation slides. One of the criteria is that the habitable height of farm structure shall not be more than 10m. Hence the relaxation of OL and travel distance is not applicable to multi storey farm exceeding 10m.

Compiled **PUB**-related Q&A

Q1: The rainwater harvesting system is already storing water, which will result in lesser discharge to the public drains. Why is detention system still required?

- Detention tank and rainwater harvesting tank serve different purpose; the first being to temporarily detain runoff and discharge at a controlled rate so as not to overwhelm our public drains; the second being to store rainwater within the premises for non-potable use. In addition, the detention tank is required to be emptied within 4 hours so that the detention volume is available for the next storm event.

Q2: For the harvesting tank, if the client can do a control system to keep the detention volume, available, can that be considered to make the space planning and construction cost more efficient?

- A harvesting tank with control system to keep the required detention volume available can be considered so long as the following conditions can be fulfilled:
 - a) The required detention volume shall be always available; and
 - b) The required detention volume shall be restored within 4 hours after a rain event.The QP shall submit details and calculations to demonstrate that the above conditions can be fulfilled.

Q3: In what scenario is water treatment pond not required for a farm development?

- A treatment pond is one type of runoff treatment systems that is mainly required for farms with open-to-sky farming area such as conventional vegetable farms and nurseries. If all the pollutive areas in the farms, such as the farming area and storage area for farming materials like fertilisers, are sheltered and kerbed up, there will not be a need for a treatment pond. This is because the shelters and kerbs will eliminate the risk of stormwater ingress and generation of nutrient-rich runoff into PUB's storm drain. Also, if water within an open farm is re-circulated and used within a close-looped system without any need for discharge into the public storm drain under all circumstances, there will also not be a need for a treatment pond. Besides treatment ponds, alternative proposals designed and endorsed by a Qualified Person (QP)

to meet the discharge water quality requirements can be submitted for PUB's approval. The discharge from any agricultural sites in water catchment areas into the drainage system shall comply with Allowable Limits for Trade Effluent Discharge to Controlled Watercourses under the EPMA (Trade Effluent) Regulations and PUB's discharge water quality requirements of Total Nitrogen ≤ 10 mg/L, Total Phosphorus ≤ 0.65 mg/L, Total Organic Carbon ≤ 20 mg/L and Ammonia ≤ 1 mg/L for water catchment areas.