

Your ref:
Our ref: 12548374

25 November 2021

John Studdert
Manildra Group
PO Box 123
Nowra NSW 2541

Modification 24: Proposed changes to GD8 building

Dear John,

1.1 Introduction

Shoalhaven Starches Pty Ltd (Manildra) propose to undertake further modifications to the existing Shoalhaven Starches Expansion Project Mod 17 (approved), as part of a new Mod 24 submission (“the project”). GHD have been engaged by Manildra to assess the potential for additional air quality impacts associated with these modifications.

This letter has been prepared by GHD to provide a brief summary of the proposed modifications, comparison against the previous air quality assessment and a quantitative discussion of potential air quality impacts associated with these modifications.

This letter should be read in conjunction with the Modification 17 Air Quality Assessment for the project: *Manildra Group Air Quality Assessment Mod 17, 2019* (GHD 2020).

1.2 Proposed changes

Shoalhaven Starches are currently undertaking detailed design for the construction of the GD8 building. As part of the detailed design process, the following amendments (relevant to the air quality assessment) are proposed:

- Separation of GD8 building from the Speciality Products building. Under Mod 17, the GD8 building adjoined the Speciality Products Buildings. The new separation distance between the two buildings is proposed to be 6 metres, with the GD8 building now shifting to the west.
- The existing Maintenance Building is proposed to be demolished.

The above amendments will require approval from the Department of Planning, Industry and Environment as a new Modification Application (Mod 24).

The changes from Mod 17 in the area of interest are attached in Appendix A.

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1.3 Comparison against previous assessment

The Mod 17 Air Quality assessment was submitted on the basis that the GD8 building would be located adjacent to the Speciality Products building. In order to assess the impact of the proposed changes on pollutant dispersion, a sensitivity analysis was undertaken.

This involved re-running the Mod 17 Air Quality odour model with the changed building layouts. The changes to the building layouts are shown in Figure 1. The location of GD8 stack was also slightly adjusted to accommodate the proposed changes to the buildings.



Figure 1 Adjusted building dimensions (red) and existing site buildings (blue)

The predicted odour concentrations from Mod 24 at all sensitive receptors are provided in Table 1 and compared against the results from Mod 17. As per recent EPA advice, for commercial receptors, results are provided assuming 24 hour operations.

The results indicate that the modifications to the building layouts are not predicted to significantly change the mod 17 modelling outcomes. Predicted odour concentrations are within ± 0.2 OU at all sensitive receivers as a result of the modification.

Table 1 Predicted peak (99th percentile, short term averaged) odour impact at nearby receptors

Receptor	Range, m	To nearest odour source	Direction	2009 EA approved 'base case' Odour criterion	Odour impact, OU, 99 th percentile, nose-response time	
					Mod 17	Mod 24
R1 Bomaderry	150	Packing Plant	W	6	4.1	4.1
R2 North Nowra	1300	Factory	SW	3	3.3	3.3
R3 Nowra	700	Factory	S	5	4.8	4.8
R4 Terara	1300	Factory	SE	5	3.9	4.1
C1	45	Factory	N	n/a	14.4	14.3
C2	20	Factory	N	n/a	8.2	8.0
C3	30	Factory	N	n/a	7.8	7.9
C4	75	Factory	NW	n/a	7.3	7.5
C5	125	Factory	NW	n/a	6.6	6.7
C6	30	Factory	NW	n/a	9.1	9.3
C7	55	Factory	NW	n/a	8.4	8.5

Note: Results at non-residential receptors (Receptors C1 to C7) are provided based on 24/7 operations, in line with recent EPA advice.

1.4 Conclusions

The proposed modifications are minor, with no significant changes to the air quality modelling outcomes and results detailed in the Mod 17 air quality assessment. Therefore, Mod 24 is acceptable from an air quality perspective.

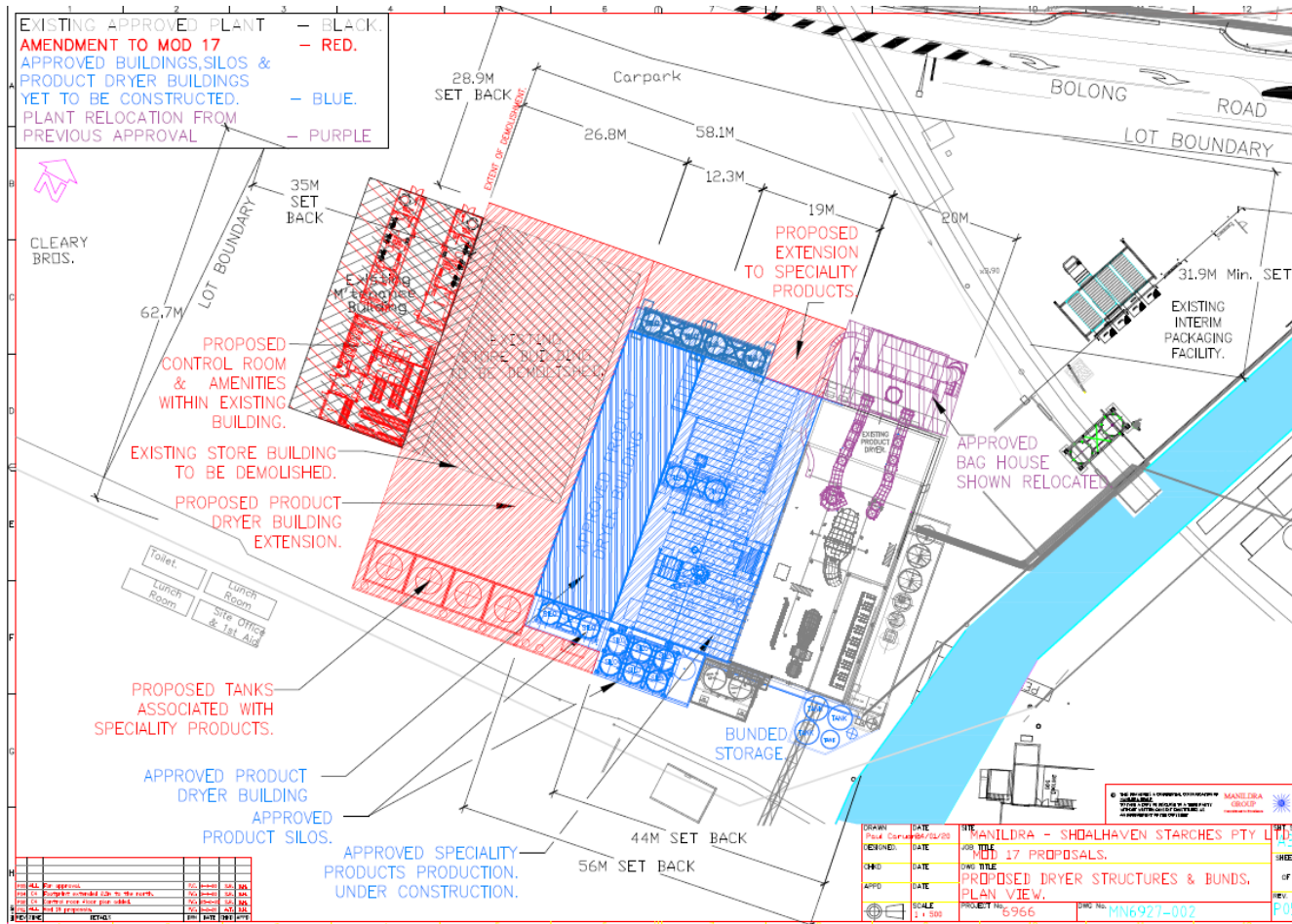
Regards,



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Appendix A – Mod 17 vs. Mod 24 changes



Modification 17

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