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Reference: 1802010e-l.docx

Attention: Mr John Studdert  
Telephone: 02 4423 8200  
Email: John.Studdert@manildra.com.au

16 December, 2021

Dear John,

**SHOALHAVEN STARCHES - MODIFICATIONS 16 & 17 TO PROJECT APPROVAL 06\_0228  
DESIGN NOISE VERIFICATION REPORT – GLUTEN DRYER 8 (GD8)**

In 2009 Shoalhaven Starches received Project Approval from the Minister for Planning for the Shoalhaven Starches Expansion Project (SSEP), reference 06\_0228, at its existing facility on Bolong Road, Bomaderry, NSW.

Subsequent to the initial approval, modified approvals have been granted for various amendments to the Expansion Project. Recently these have included Modifications 16 and 17, being MP06\_0228 MOD 16 and MP06\_0228 MOD 17.

Modification 16 and subsequently Modification 17 have included, among other things, the construction of a Gluten Dryer #8 (referred to henceforth as GD8).

During the preparation of the Modification 16 application Harwood Acoustics Pty. Ltd. prepared an Environmental Noise Impact Assessment to accompany the application, reference 1802010E-R, Rev A dated June 2018 (the Mod 16 NIA).

During the preparation of the Modification 17 application Harwood Acoustics Pty. Ltd. prepared an Environmental Noise Impact Assessment to accompany the application, reference 1909010E-R, Rev A dated June 2020 (the Mod 17 NIA).

With respect to noise control recommendations relating to GD8, the recommendations contained in the Mod 17 NIA supersede any that were made in the Mod 16 NIA, as the Mod 17 NIA was based on the most recent design and proposal of GD8 at the time.

Condition 14M of the modified approval requires that a Noise Design Verification report be prepared prior to the commencement of construction works.

This report provides that assessment, exclusively in relation to GD8 only, and I am pleased to offer the following comments.



Environmental  
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Occupational  
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Architectural  
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Transportation  
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## 1.0 MODIFIED APPROVAL CONDITIONS AND NOISE DESIGN GOALS

### 1.1 Condition of Approval 14 M

The modification to the minister's approval for application MP 06\_0228 MOD 11 states:-

*“Design Noise Verification*

*14M. Prior to the construction of any modifications described in Schedule 2, Condition 2, the Applicant shall prepare a design noise verification report to demonstrate the additional plant and equipment will meet relevant design noise goals to ensure noise from the site does not exceed the noise limits in Condition 12. The noise verification report shall:*

- a) be prepared by an appropriately qualified and experienced noise expert;*
- b) be approved by the Secretary, prior to construction of the modification;*
- c) demonstrate that the location, design and operation of the modification would achieve the noise limits in Condition 12; and*
- d) if necessary, recommend, prioritise and implement measures to improve noise controls on-site to ensure the Project as modified meets the noise limits in Condition 12 and protects off-site receivers from excess noise.*

### 1.2 Noise Design Goals

Full details of Shoalhaven Starches' Environment Protection Licence 883 (EPL) noise limits and the requirements of the Noise Management Plan can be seen in the Mod 17 NIA. Previously the noise design goals for new projects were set at a minimum 10 dB below the EPL noise limits to account for the cumulative affect of multiple new noise sources. Recently, however, due to the number of new modifications and the increase of new and proposed noise sources, the noise design goals have been set to a minimum 15 dB below the EPL noise limits.

The new noise design goals at each receptor location are summarised below.

Operational Phase (Environment Protection Licence noise limits less 10 dB) -

- *23 dBA ( $L_{eq}$ , 15 minute) at locations in Terara on the south side of the Shoalhaven River;*
- *23 dBA ( $L_{eq}$ , 15 minute) at locations in Nowra on the south side of the Shoalhaven River;*
- *27 dBA ( $L_{eq}$ , 15 minute) at locations in Meroo Street, Bomaderry;*
- *25 dBA ( $L_{eq}$ , 15 minute) at other locations in Bomaderry.*

## 2.0 NOISE DESIGN VERIFICATION GD8

Harwood Acoustics Pty Ltd has reviewed the proposed construction methods and materials for the GD8 (and associated Wet End) building. This review is based on:-

- Mechanical services drawings prepared by Vos Group Pty Ltd, for project no. 21.5893, issue A, dated September 2021,
- Building floor plans and elevations prepared by multiCAD Pty Ltd for job no. 916, dated 07/10/2021,
- The two ventilation stacks achieve the noise goal of 80 dBA ( $L_{eq}$ , 15 minute) individually, or the combined equivalent.
- Discussions with Mr Peter O'Neill, Project Manager at Shoalhaven Starches.

Based on the proposed construction of the building and the source noise levels as detailed in the Mod 17 NIA, I am pleased to confirm that the predicted noise levels from GD8 and the Wet End building satisfy the noise design goals at all receptors.

Please do not hesitate to contact the undersigned should you require any further information or clarification.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Matthew Harwood'.

**Matthew Harwood**, MAAS  
Principal Acoustical Consultant

Attachments:-

Important Note

**Important Note**

*All noise predictions for this project are based on the noise level data supplied by either the client or the various manufacturers of plant or equipment, or from direct noise measurements of existing plant and equipment that is deemed to be similar to, and equivalent to, that which is to be installed in this project, as advised by the client. All noise control recommendations are predicated on those source noise levels. Any increase in actual source noise levels as a result of, for example, but not necessarily limited to, alternative or additional equipment, alternative operating conditions or scenarios may result in higher than predicted noise levels at any receptor locations.*

*All products and materials suggested by Harwood Acoustics Pty Ltd are selected for their acoustical properties only. Recommendations made in this report are intended to resolve acoustical problems only, therefore all other properties such as aesthetics, air flows, chemical, corrosion, combustion, construction details, decomposition, expansion, fire rating, fumes, grout or tile cracking, loading, shrinkage, smoke, ventilation etc. are outside Harwood Acoustic's field of expertise and **must** be checked with the supplier or suitably qualified specialist before purchase.*

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