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Reference: 1609010e-l2.docx

Attention: Mr John Studdert  
Telephone: 02 4423 8200  
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23 November, 2021

Dear Sue,

**SHOALHAVEN STARCHES - PROPOSED MODIFICATION 11 TO MP 06\_0228 - DDG DRYER #5  
DESIGN NOISE VERIFICATION REPORT**

Shoalhaven Starches received a modified approval MP06\_0228 MOD 11 from the Minister for Planning for the installation of new Dried Distillers Grain (DDG) Dryer at their existing facility on Bolong Road, Bomaderry, NSW.

It was proposed to modify the approval to reduce the number of previously approved new DDG Dryers from six (6) to four (4) and install the four over two stages with one in the first stage and three in the second stage.

One was installed in 2020 (DDG #4) and Shoalhaven Starches is now in the process of a seeking a Construction Certificate for the installation of the next Dryer (DDG #5).

At the time of the modification application, Harwood Acoustics prepared an Environmental Noise Assessment, reference 1609010E-R, dated 27/10/2016 (the NIA).

The NIA assessed noise emission from all noise sources associated with the proposed new DDG Dryers.

The NIA provided noise control recommendations to ensure that the noise design goals, and consequently Environment Protection Licence 883 noise limits, would be met at all receptor locations. The noise control recommendations included advice for both stages 1 and 2.

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 and I am pleased to offer the following comments.



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## 1.0 MODIFIED APPROVAL CONDITIONS

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 Proponent 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.*

## 2.0 PROPOSED DESIGN AND NOISE CONTROL RECOMMENDATIONS

Full details of the proposed modification, predicted noise levels and recommended noise controls can be seen in the NIA. This assessment addresses Stage two of the modification, specifically DDG #5.

Noise control recommendations made in the NIA in relation to DDG #5 include the following:-

- *Source noise levels for all constituent parts in accordance with the manufacturer's sound data as detailed in the NIA,*
- *A further reduction of 6 dB would be required for the Dryer and associated cooling tower\**

*The required reduction may be achieved through a combination of the judicious selection of low noise plant and localised acoustical treatment.*

\* from the 'no noise controls' scenario based on the manufacturer's sound data and free field propagation without additional attenuation from intervening structures.

### **Achieving the Sound Level Design Goals**

In this instance, there will be no cooling tower associated with the installation of DDG #5 and the Dryer equipment will be located within a building structure with openings only to the east. Full details of the structure can be seen in the Manildra Group's building design plan 7529-001 dated 12/08/2021.

In addition, in April 2020 Harwood Acoustics carried out a Design Noise Validation assessment for DDG #4. The measured levels of noise emission from the plant and equipment associated with DDG #4 were lower than the levels assumed in the NIA.

DDG #5 will include the same plant and equipment as DDG #4, other than the cooling tower. I have reviewed the proposed construction details and the noise levels from the plant and equipment associated with the Dryer.

Calculations and predictions show that the level of noise emission from the operation of DDG #5 will be well below the predicted noise levels established in the NIA and consequently below the noise design goals established for this modification, at all receptor locations.

### 3.0 CONCLUSION

We have reviewed the proposed design for the construction of DDG #5 under Stage 2 of Modification 11 at Shoalhaven Starches existing facility on Bolong Road, Bomaderry, NSW.

The proposed noise design goals for DDG #5 will be met to ensure noise limits in the Project Approval MP 06\_0228 are achieved.

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

Yours faithfully



**Matthew Harwood**, MAAS  
Principal Acoustical Consultant