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6 November, 2020

Mr. Chris Ritchie
Director – Industry Assessments
Department of Planning, Industry & Environment
Locked Bag 5022
PARRAMATTA NSW 2124

Dear Chris

**RE: SHOALHAVEN STARCHES EXPANSION PROJECT
MODIFICATION NO. 19 (MOD 19)
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION**

I refer to the Department's letter dated 22nd October 2020 in which it sought further information in relation to the above Modification Application. The Manildra Group have engaged our firm to respond to the Departments letter on their behalf. This submission has been prepared to respond to the matters raised in the Department's letter.

Air Quality

1. *The Statement of Environmental Effects (SEE) notes the PM10 and PM2.5 24 hour criteria are exceeded at a commercial receptor which is attributed to high background concentrations. The Department requests more information be provided on the background particulate matter concentration sources recorded in the assessment. The Applicant should identify if background sources are attributed to site operations and any measures being undertaken to manage or mitigate high background particulate matter concentrations.*
2. *The SEE identified increases in predicted odour levels at commercial receptors due to higher quarterly sampling results attributed mainly to the site's boiler house. The Department requests the Applicant provide further details on the cause of higher quarterly sampling results of odour levels and the measures being implemented to manage or mitigate odour levels.*

Response

GHD who prepared the Air Quality Impact Assessment that supported the original Modification Application have been engaged by the Manildra Group to prepare a response to these issues. GHD's response is attached to this submission.

Substation Relocation

3. *The modification application includes the requested relocation of an approved electrical substation due to construction constraints at the approved location. The Department requests further information on the aforementioned construction constraints and further justification for the electrical substation relocation.*

Response

Under Mod 16 the main electrical substation was to be constructed above an existing electrical substation. As outlined in the documentation that supported Mod 16 the then existing main 11kV switchboard had a capacity of 50 MVA. Under Mod 16 the power supply to the site needed to be increased above this capacity. Under Mod 16 it was proposed to install a second main HV switchboard in a new switch room to be located above the existing main switch room to provide increased electrical power capacity.

However following subsequent structural engineering investigation and design it has been identified that the existing substation structure is not adequate to support the additional loads that will be created by the proposed new substation that was to be located above it as proposed under Mod 16.

Investigations have been undertaken to ascertain the ability to erect new support columns to enable the substation station to be located above the existing substation as originally approved. However it is not possible to gain access to the eastern side of the existing substation to enable the installation of new piered footings. In this regard piered footings were considered necessary due to the general ground conditions in this part of the site which raise settlement issues if pad footings are utilised.

There is an existing operating sub-station to the east of this part of the site which contains a 33 KV Transmission line. Access to this area would be limited by a narrow walkway. Given the need to provide piered footings, a piling rig would need to be used. A piling rig however could not be sited within this area due to overhead power lines and the operating transmission lines. There are simply too many constraints in this area to locate the piling rig to enable the construction of these footings.

As a result of these constraints it is now proposed under Mod 19, to construct the new electrical substation above the existing packing plant. Under this option new footings are able to be erected within the existing packing shed which provides greater flexibility and accessibility for construction when compared to the original location above the existing substation approved under Mod 16. The location proposed under Mod 19 is simply not subject to the same construction constraints as that faced by the approved location under Mod 16.

Visual Impact

4. *The SEE identifies the proposed new distillery columns will have a maximum building height of 54 metres (m) but would not exceed the existing tallest site infrastructure. However, the SEE identifies the tallest existing site infrastructure to be the boiler house stack at 53.7 m, being less than the proposed new distillery column. The Department requests further clarification on the maximum height of existing site structures. If the proposed new distillery column is higher than all existing site infrastructure, further justification is required for the proposed height and the associated visual impacts arising from the modification.*

Response

Attached to this submission is a revised drawing number MN6963-000 detailing the Reduced Levels (RLs) by survey of the heights of existing development across the Shoalhaven Starches site and including the structures associated with Mod 19. This revised drawing assumes a ground level RL of 4.0 m.

This diagrams shows that the proposed new distillery columns associated with Mod 19 will have a maximum RL height above ground level of 58.22 m.

The lightning rod associated with the Mod 19 will have a height of 60.62 m. It should be noted however that the lightning rod comprises a thin rod with a small ball at its peak. Such is a relatively minor structure that will be barely visible amongst the bulk and scale of the prevailing development of the site and is therefore not considered further in this submission.

The tallest structure presently located on the Shoalhaven Starches site is the exhaust stack associated with the Boiler House which rises up to an RL of 57.84 metres. The distillery column structure associated with Mod 19 will therefore have a height above this existing tallest structure by only 0.38 m and represents an increase in height of the boiler house stack of only 0.65%.

The increased height of these distillery columns arises as a direct correlation with the function of the column to process higher grade ethanol however from a lower quality feedstock.

The existing beverage grade distillery columns process “industrial” grade ethanol into the higher quality beverage grade ethanol.

The distillery columns proposed under Mod 19 however will process raw ‘beer’ from the fermenters. This raw beer at only 7% to 12% alcohol will be directly processed to the higher quality beverage grade ethanol. This differs from the existing beverage grade ethanol plant where higher quality industrial grade ethanol feedstock is processed to the higher beverage grade ethanol. As a result a larger column is required as proposed under the Mod 19 to provide the additional processing volume and equipment to enable this increased processing capability.

Furthermore, the height of the column cannot be reduced by for instance increasing its diameter to retain its volume, for the simple reason that such a structure could not be transported to the site. A column structure with a larger diameter could not for instance be transported under road bridges along the transport route to the site.

It should be noted that there are other structures rising to RLs around 50 m including the exhaust stack for the DDG Pellet Plant (54.3 m), Crane (51.07 m), No. 6 Dryer (46.72 m) and the other boiler houses exhaust stacks (43.12 to 44.64 m).

It is clearly evident from the attached drawing that there a number of structures within the Shoalhaven Starches site which have heights of a similar magnitude to that now proposed by the distillery columns for Mod 19.

An exceedance of 0.38 m will be barely perceptible when consideration is given the bulk , scale and height of other buildings and structures located across the Shoalhaven Starches site. This structure, with such a minor increased height when compared to other structures of the site, will not sit visibly proud of other structures on the site.

Such a relatively minor increase in height needs to be considered in context of the numerous buildings and structures that are located across the site that are of a considerably greater bulk and scale when compared to the distillery columns; and the numerous other tall structures that are located throughout the site. The distillery columns are essentially tall thin vessels with supporting structures. They are not large bulky buildings like the Flour Mill, Product Dryer and

DDG Pellet Plant buildings which are far bulkier structures and have a considerably greater visual impact when compared to the whilst taller, but far less bulky distillery column.

Under these circumstances it is not considered that the proposed distillery column associated with Mod 19 will have an adverse visual impact within the broader landscape despite its height slightly exceeding the height of other structures on the site by only 0.38 m. Whilst this structure might be slightly taller than other structures, it will not have the visual bulk that other structures within the site have and will therefore not necessarily be as visually dominant within the broader landscape when compared to some of these building on the site.

General

The employment generation numbers and capital investment value (CIV) related to the modification works must be provided.

Response

As detailed in the Modification Application form that accompanied this application:

- The modification proposal will generate employment for an additional 2 operational positions.
- The modification proposal will generate employment for up to 65 construction positions.
- The modification proposal has a capital investment value of \$ 48 million.

I trust the above information is of assistance to the Department's consideration of this Modification Application.

If you require any further clarification in connection with this matter please do not hesitate to contact me.

Yours faithfully



Stephen Richardson
COWMAN STODDART PTY LTD

Enc.