



**Determination of Modification Application  
State Significant Development  
Shoalhaven Starches Ethanol Expansion Project (06\_0228 MOD 16)**

**1. INTRODUCTION**

1. On 29 March 2019, the Independent Planning Commission NSW (the **Commission**) received from the NSW Department of Planning and Environment (the **Department**) a modification application (the **Application**) from Shoalhaven Starches Pty Ltd (the **Applicant**). The Application seeks to modify an existing development consent under section 4.55(2)(a) of the *Environmental Planning and Assessment Act 1979 (EP&A Act)* for the Shoalhaven Starches Ethanol Expansion Project MP\_0228 (the **Project**).
2. The Commission is the consent authority in respect of the Application under section 4.5(a) of the EP&A Act and clause 8A of the *State Environmental Planning Policy (State and Regional Development) Act 2011 (SEPP SRD)* due to reportable donations having been made by the Applicant.
3. Professor Mary O’Kane AC, Chair of Commission, nominated John Hann (Chair) and Russell Miller AM, to constitute the Commission to determine the Application.
4. In January 2009, the then Minister for Planning approved the Project under the now repealed Part 3A of the EP&A Act. The Project was a transitional Part 3A project under Schedule 2 to the *EP&A (Savings, Transitional and Other Provisions) Regulation 2017 (the Regulation)*. On 7 September 2018 an order made by the Minister’s delegate was published in the Gazette declaring the development that was a Part 3A project to be State significant development under clause 6 to Schedule 2 of the Regulation. As a result, the Project is taken to be a State significant development consent under Part 4 of the EP&A Act and may be modified under section 4.55 of the EP&A Act.

**1.1 Modification Application**

*Background*

5. According to the Department’s Modification Assessment Report, dated 26 March 2019 (Department’s **MAR**), the Applicant originally operated its factory and environmental farm on the site under multiple, separate planning approvals issued by Shoalhaven City Council (**Council**) and the Minister for Planning. These approvals were subsequently consolidated in January 2009, by the then Minister for Planning into a single approval with the aim of simplifying regulation and compliance. This original approval of the Project MP06\_0228 approved on 28 January 2009 (**Project Approval**) involved:
  - staged increases of ethanol production from 126 megalitres a year (ML/yr) to 300 ML/yr following successful implementation of mandatory odour controls;
  - implementation of mandatory odour controls including a wastewater treatment plant and biofilter; and
  - installation of additional infrastructure at the dried distillers grain (DDG) plant, ethanol and starch plants, a new packing plant, rail siding and product and wastewater pipelines.

6. To date, there have been fifteen modifications to the Project Approval. All modifications were approved by the former Planning Assessment Commission, as the Delegate for the Minister for Planning, and more recently by the Commission under the Minister’s delegation as former s75W modifications.

*Summary of the Application*

7. The Applicant seeks to modify the Project to install additional infrastructure to increase flour, starch and gluten production and on-site energy generation. A summary of the Application is provided in Table 1 below.

**Table 1** Summary of the Proposed Modification

| Modification Aspects  | Description  |
|---|--|
| New flour mill C<br>(Figure 5)                              | <ul style="list-style-type: none"> <li>• install a third flour mill (C) to increase flour production from 20,000 tonnes per week (tpw) to 25,400 tpw, located in the existing flour mill B building</li> <li>• import an additional 200 tpw of flour to the site from other mills</li> <li>• divert some of the grain used for ethanol production into flour production</li> </ul>   |
| Vent changes to flour mills A and B (Figure 5)              | <ul style="list-style-type: none"> <li>• modify the existing ventilation systems on flour mills A and B from a vacuum to a pressurisation system including fan enclosures on the roof of flour mills A and B</li> </ul>  |
| New gluten dryer 8<br>(Figure 6)                            | <ul style="list-style-type: none"> <li>• install a new gluten dryer within a new building between the existing maintenance building and starch dryer 5. The building would be 26.3 metres (m) high</li> </ul>  |
| Convert gluten dryers 1 and 2 to starch dryers              | <ul style="list-style-type: none"> <li>• convert the existing gluten dryers to starch dryers and change pipework and connections</li> </ul>  |
| Specialty products building and storage silos<br>(Figure 6) | <ul style="list-style-type: none"> <li>• construct a new building (26 m high) to house equipment to produce specialty products from gluten and starch, located adjacent to starch dryer 5 and the new gluten dryer building</li> <li>• construct 15 storage silos on the northern and southern sides of the new specialty products building at 33 m high</li> <li>• construct 10 bunded tanks to store liquid starch on the southern side of the specialty products building</li> </ul>  |
| New sifter  | <ul style="list-style-type: none"> <li>• install a new sifter inside the interim packing plant, extending 15 m above the roof</li> </ul>   |
| Other output increases                                      | <ul style="list-style-type: none"> <li>• increased flour production will result in a corresponding increase in: <ul style="list-style-type: none"> <li>○ dried distillers grain syrup (DDGS) of 1,100 tpw</li> <li>○ wastewater of 13.3 megalitres per week (ML/wk)</li> </ul> </li> </ul>   |
| Cogeneration plant and new boiler 8<br>(Figure 7)           | <ul style="list-style-type: none"> <li>• construct a new coal-fired cogeneration plant (13 m high) to generate an additional 15 megawatts (MW) of power on site, located south of the existing boiler house complex</li> <li>• construct a new coal-fired boiler no. 8 within a building 13 m high, with a stack at 54 m high</li> <li>• relocate existing coal-fired boiler 7 within an extension to the existing boiler house. Relocate the existing boiler 7 stack, at 26.8 m high</li> <li>• install two new silos to store lime for use in the boilers to reduce emissions of sulphur oxides (SOx)</li> </ul> |
| Electrical  | <ul style="list-style-type: none"> <li>• construct an indoor sub-station adjacent to the BOC gas plant on the northern side of Bolong Road</li> <li>• install a second high-voltage switchboard in a second storey extension to the existing switchroom at the factory, increasing the height by 12.5 m</li> </ul>   |

| Modification Aspects                     | Description  |
|--|--|
| Grain intake pit                         | <ul style="list-style-type: none"> <li>construct a second grain intake pit, 3.95 m below ground level, adjacent to the existing pit, to enable a whole rail wagon to be unloaded at once</li> <li>construct a new bucket elevator 43 m high to transfer grain from the pit to the existing storage silos</li> </ul>  |
| Carparking                               | <ul style="list-style-type: none"> <li>relocate 26 car parking spaces on the BOC gas site further east of the existing location, to accommodate the new indoor substation</li> </ul>   |
| Landscaping                              | <ul style="list-style-type: none"> <li>planting on the BOC gas site on the frontage to Bolong Road, to screen the new indoor substation</li> </ul>   |
| Modifications to approved infrastructure | <ul style="list-style-type: none"> <li>install a new baghouse on starch dryer 5, on the northern side of the building at 36 m high</li> <li>minor relocation of infrastructure approved under MOD 12, including the sub-station, cooling towers and emergency ISO tank container storage</li> <li>minor relocation of carparking approved under MOD 3 to accommodate location changes to MOD 12 infrastructure</li> </ul>                                |
| Modifications to existing conditions     | <ul style="list-style-type: none"> <li>remove the requirement to enclose the fermenter tank transfer pumps and molecular sieve pumps and compressors for noise attenuation</li> <li>remove condition 6B that includes specifications for construction of the DDG exhaust stack for odour control</li> </ul>  |
| Modification to include additional lots  | <ul style="list-style-type: none"> <li>include additional land parcels that are not currently included in the land schedule in the development consent. These land parcels are used as part of the factory and environmental farm operations</li> </ul>  |
| Construction period                      | <ul style="list-style-type: none"> <li>12 months</li> </ul>  |
| Employment                               | <ul style="list-style-type: none"> <li>5 operational staff</li> <li>up to 80 construction staff at one time</li> </ul>   |
| Justification                            | <p>The Applicant proposes to increase production of flour, starch and gluten to offset a reduced market demand for fuel-grade ethanol. The modification would enable the Applicant to supply modified gluten and starches to new markets in the food and paper industries. The modification would also enable the Applicant to generate more power on-site using coal, reducing its reliance on natural gas, and subsequently reducing energy costs.</p> |

*Source: Department of Planning and Environment's Modification Assessment*

## 2. THE DEPARTMENT'S ASSESSMENT OF THE APPLICATION

### 2.1 Key steps in Department's assessment of the Application

8. The Department received the Application from the Applicant on 10 September 2018 and it was made publicly available from 24 September 2018 to 08 October 2018, on the Department's website.
9. The Department received submissions from Council, the Environment Protection Authority (EPA), the Office of Environment and Heritage (OEH), Roads and Maritime Services (RMS), the Department of Industry – Lands and Water (DILW) and Fire and Rescue NSW (FRNSW). None of the agencies objected to the Application, but the EPA and the FRNSW provided recommendations on the proposed conditions. The Department did not receive any public submissions during the exhibition period.
10. The Applicant provided a response to submissions (RtS) on three separated occasions, dated 25 September 2018, 12 October 2018 and 16 October 2018, which sought to address the issues

raised by government agencies.

11. The Department's MAR identified air quality and hazards and risk as key issues.
12. The Department stated in its MAR:

*"The Department has assessed the proposed modification in accordance with the relevant requirements of the EP&A Act. On balance, the Department considers the proposed modification is appropriate on the basis that the:*

- *modification is consistent with relevant strategic plans for the Illawarra-Shoalhaven region*
- *modification would result in minimal environmental impact beyond the approved development*
- *air quality would be maintained through implementation of mitigation measures and best management practice for the new boiler, to ensure compliance with more stringent air emission limits*
- *cumulative risk from the additional infrastructure would be acceptable and the overall factory would continue to comply with the NSW land use safety risk criteria*
- *modification would not have adverse impacts on the road network during construction and operation, with intersections and site accesses continuing to operate within acceptable limits*
- *operation of the overall factory, with the new equipment, would meet existing noise limits at residential receivers*
- *additional wastewater generated by the modification can be effectively managed within the existing wastewater treatment plant and irrigation areas*
- *modification would have minimal impact on flooding, visual amenity, riverbank stability, contamination and acid sulphate soils.*

*The Department concludes the proposal is in the public interest and the application is approvable, subject to conditions ..."*

### **3. THE COMMISSION'S MEETINGS AND SITE INSPECTION**

13. As per the Commission's *Site Inspection and Locality Tour Guidelines*, there is no statutory requirement for the Commission to conduct a site and locality inspection when determining an application or carrying out any other of its functions. In deciding whether to undertake a site inspection or locality tour for this Application, the Commission has taken the following matters into account:
  - the physical attributes of the Project site and whether they can be adequately assessed by other means;
  - the physical size of the proposed development;
  - whether the Application involves only administrative changes to a consent;
  - the nature of the likely impacts of the Project (such as visual impacts or other proximity impacts); and
  - the accessibility of the Project site and safety considerations.
14. As discussed in paragraphs 7 and 20, none of the government agencies objected to the Application and no public submissions were received during the exhibition period, discussed in paragraph 9; the Commission did not see it as necessary to meet with the Applicant or undertake a site inspection for this determination.

## 4. THE COMMISSION'S CONSIDERATION

### 4.1. Material considered by the Commission

15. In determining this Application, the Commission has carefully considered the following material (**the Material**):
- Project Approval 06\_0228, dated 28 January 2009;
  - the Director-General's Environmental Assessment Report for the Shoalhaven Starches Expansion Project, dated December 2008 and all associated documents;
  - SSD 06\_0228 Modifications 1-15 ;
  - the proponent's Environmental Assessment (**EA**), Annexures 1-13, dated June 2018 and its RtS documents dated 25 September 2018, 12 October 2018 and 16 October 2018;
  - the Applicant's revised Air Quality Impact Assessment (**AQIA**); dated 13 December 2018.
  - the Department's MAR dated 26 March 2019, and the proposed Modification Instrument (MP 06\_0228 MOD 16);
  - additional information from the Applicant on Greenhouse Gas (**GHG**) emissions, including a report by GHD dated May 2019 and the Applicant's response to further questions from the Commission dated 11 June 2019; and
  - all government agencies submissions made to the Department in respect of the proposed modifications during the public exhibition of the EA and the RtS.

### 4.2. Mandatory Considerations

16. In determining this Application, the Commission has taken into consideration section 4.55(3) of the EP&A Act, which requires that:
- "(3) In determining an application for modification of a consent under this section, the consent authority must take into consideration such of the matters referred to in section 4.15(1) as are of relevance to the development the subject of the application. The consent authority must also take into consideration the reasons given by the consent authority for the grant of the consent that is sought to be modified."*
17. In light of the above, the Commission has also taken into consideration the following relevant mandatory considerations, as provided in section 4.15(1)
- the provisions of all relevant:
    - environmental planning instruments;
    - proposed instruments that are or have been the subject of public consultation under the EP&A Act and that have been notified to the Commission (unless the Secretary has notified the Commission that the making of the proposed instrument has been deferred indefinitely or has not been approved);
    - development control plans;
    - planning agreements that have been entered into under section 7.4 of the EP&A Act, and draft planning agreements that a developer has offered to enter into under section 7.4; and
    - the Regulations (to the extent that they prescribe matters for the purposes of section 4.15(1) of the EP&A Act); that apply to the land to which the modification application relates;
  - the likely impacts of the modification, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality;
  - the suitability of the site for the development;
  - submissions made in accordance with the EP&A Act and Regulations; and
  - the public interest.

### 4.3. Scope of the modification within section 4.55(2) of the EP&A Act

18. The Application was made under section 4.55(2) of the EP&A Act. Section 4.55(2)(a) states:  
*“A consent authority may, on application being made by the proponent or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:  
(a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified.”*

#### **Applicant’s considerations**

19. In relation to whether the Application is substantially the same development as to what was originally approved, the Applicant stated in its EA:

*“Although the amount of flour that will be processed at the Shoalhaven Starches site will increase, the proposed modifications do not seek to increase the amount of raw material (grain) processed but plan to redirect the grain from ethanol production into flour processing. (Flour processing, starch and gluten production and ethanol production are processes which are already approved at the site). As such the proposal will redirect the processing of approved raw material from one process which is approved for the site to another approved process. As such, it is considered that the proposed development is substantially the same as that approved and is development that could be considered “materially the same as that previously approved”. Furthermore, it is considered that the modifications proposed are of the same ‘essence’ as the approved development given that:*

- the proposal maintains the current land use approved at the site and does not seek to alter the over-riding character of development;*
- the proposed built form is substantially the same as that already approved, in that development is to consist of industrial buildings, plant and equipment located within the general confines of the Shoalhaven Starches Factory site;*
- The proposed modifications do not represent a significant expansion of the Shoalhaven Starches’ footprint and the majority of the modifications will be located within the main factory site; and*
- The proposed buildings maintain the same form as that approved with due consideration given in the Modification application to riverbank stability; flood impacts, noise impacts, and air quality.*

*“...The redirection of raw material to an alternate approved production process may not be precisely the same use as that for which consent was originally granted but it still represents development that is substantially the same in so far that both production processes already occur on-site.”*

*“This proposal will not expand the footprint of Shoalhaven Starches factory. All of the proposed modifications (except the new electrical substation) are located within the main Shoalhaven factory site. As such these modifications represent a form of in-fill development. The proposed development will have a limited visual impact. The bulk, character and scale of the structures associated with this modification application will not be dissimilar to that of other industrial type development associated with the existing factory site. Furthermore, the proposed works will be sited within proximity of similar structures of a similar nature. The works will be sited in the midst of the existing factory complex and will be viewed within this context”*

## **Department's assessment**

20. In its assessment, the Department included a section as to how the Application is substantially the same development as what was originally approved. The Department MAR stated:

*"The Department has reviewed the scope of the modification application and is satisfied it would result in minimal environmental impacts, and relates to substantially the same development as the original development on the basis that:*

- *the primary function and purpose of the approved development would not change*
- *the modification is of a scale that warrants the use of section 4.55(2) of the EP&A Act. While the modification would involve numerous items of additional plant, the changes are substantially the same as the existing operation of the Shoalhaven Starches factory*
- *there would be only minor increases in production volumes, as wheat grain used for ethanol would be diverted to flour, starch and gluten production*
- *the modification would not involve any works outside already approved development areas*
- *any potential environmental impacts would be minimal and appropriately managed through the existing or modified conditions of consent.*

*The Department is satisfied the proposed modification is within the scope of section 4.55(2) of the EP&A Act and does not constitute a new development application. Accordingly, the Department considers that the application should be assessed and determined under section 4.55(2) of the EP&A Act rather than requiring a new development application to be lodged."*

## **Commission's finding**

21. The Commission has considered the Material and accepts the Applicant's considerations, discussed in paragraph 19 and accepts the Department's considerations in paragraph 20 and finds that the Application can be determined under s4.55(2) as it is substantially the same development for which consent was originally granted because:
- the bulk, character and scale of the structures associated with the Application will not be dissimilar to those associated with the existing factory site and will not expand the footprint of the Project; as discussed in paragraph 19;
  - the Application does not seek to alter the over-riding character of development; as discussed in paragraph 19;
  - the Application represents a form of in-fill development and would be within the approved development areas; as discussed in paragraphs 19 and 20; and
  - increased production resulting from the proposed modifications in the Application, would be minor; as discussed in paragraph 20.
22. As the Project is one to which Part 4 of the EP&A Act now applies, the Commission has also considered the Application in accordance with the requirements of section 4.55(3) of that Act.

## **4.4. Likely impacts of the proposed modification**

### **4.4.1. Air quality**

23. The Commission has taken into account the Material insofar as it relates to air quality impacts of the Application.

## **Applicant's considerations**

24. As part of its EA, the Applicant provided an air quality impact assessment (**AQIA**) prepared by GHD that assessed the associated off-site odour and air quality impacts.

25. In relation to odour, the Applicant stated in its EA:

*"This report notes that although there may be a marginal increase in odour impacts as a result of the modification overall, the proposal should be acceptable from an air quality perspective. GHD state the odour criteria [Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales] (the Approved Methods) is met at all sensitive receptors and it is considered highly unlikely that the increase in odour would be detected at sensitive receptors. Air quality impacts are predicted by GHD to comply with the criteria at all sensitive receptors. Furthermore, GHD indicate Shoalhaven Starches have implemented reasonable and feasible mitigation measures on site to reduce the potential air quality impacts from the new boiler."*

26. Also, the Applicant stated in its EA in relation to the increased odour emissions:

*"...GHD advise the increase is attributed to the new sources in the southern part of the site and the addition of new buildings.*

*Despite these increases, according to GHD, the results show that the impact assessment odour criteria [the Approved Methods] are achieved at all sensitive receptors."*

27. The Applicant provided further information on 25 September 2018 and a revised AQIA on 13 December 2018 which sought to address the EPA's comments.

#### **Department's assessment**

28. In relation to odour, the Department's MAR stated that:

*"The EPA reviewed the revised AQIA and requested further clarifications. The EPA noted the revised AQIA predicted slight exceedances of the criteria for SO<sub>2</sub> and NO<sub>2</sub> at the nearest commercial receiver and requested the Applicant demonstrate the modification can be designed to comply with the criteria. The Applicant provided a further revision of the AQIA in February 2019 demonstrating the modification would comply with the criteria at all receivers. Correspondence from the EPA in March 2019 confirmed it was satisfied these issues had been adequately addressed or could be addressed through recommended conditions."*

29. As to the predicted particulate matter predictions, the Department MAR stated:

*"...Further analysis showed the background concentrations account for 80% of the concentration, with boiler 8 contributing less than 1% of total emissions. EPA acknowledged the highest particulate contributions are from existing sources not associated with the modified factory."*

*"...EPA recommended the Applicant provide a best management practice report, prior to constructing boiler 8 to benchmark the final design against best practice and demonstrate all reasonable and feasible mitigation measures are included in the final design. The EPA also recommended operational monitoring of NO<sub>x</sub> from all gluten and starch dryers on the site for comparison with predictions. EPA's final advice confirmed its issues had been adequately addressed or can be addressed through the recommended conditions."*

30. In relation to the predicted coal and gas products of combustion from the boilers, the Department's MAR stated:

*"...The air dispersion model predicted emissions of CO, hydrogen fluoride, hydrogen chloride, polycyclic aromatic hydrocarbons (PAHs), VOCs and heavy metals would be below relevant criteria at all residential receivers. The AQIA initially predicted exceedances of the criteria for SO<sub>2</sub> and NO<sub>2</sub> at the nearest commercial receiver."*

...



*“To address the concerns raised by the EPA about compliance with the criteria, the Applicant reviewed the AQIA making two key changes. These included a revision to the stack heights on boilers 2 and 4 ... and increasing the stack height on the proposed boiler 8 from 39m to 54m. These changes were modelled, showing predicted compliance for SO2 and NO2 at all receiver locations. Figure 9 shows the cumulative maximum predicted SO2 concentrations.”*

31. The Department’s MAR concluded on air quality:

*“...the modification can be designed to achieve lower emissions than existing regulatory limits and would not result in off-site air quality or odour impacts at residential or commercial receivers. The Department agrees with the recommendations of the EPA and considers it imperative the new boiler is designed to achieve best management practice for air emissions reductions. The recommended conditions for lower emission limits and best practice management, would ensure the modification maintains the improved air quality outcomes that have been achieved through implementation of the SSEEP.”*

### **Additional information**

32. On 8 April 2019, the Commission requested from the Department an assessment of GHG emissions resulting from the Application, as no assessment of GHG emissions has been provided for the proposed coal-fired cogeneration plant. On 29 May 2019, the Department provided the Shoalhaven Starches Greenhouse Gas Emissions Assessment to the Commission, dated May 2019.
33. On 4 June 2019, the Commission sought information from the Department concerning initiatives to manage emissions as a result from the Application. On 11 June 2019, the Department provided a response from the Proponent.

### **Commission’s findings**

34. The Commission notes that none of the agencies objected to the Application, as discussed in paragraph 8; and that the Department is satisfied that the key issues have been addressed, as discussed in paragraphs 28 - 31.
35. The Commission finds that the air quality impacts identified for the Application and addressed by the Applicant and the Department, are acceptable, because:
- odour resulting from the Application would meet the Approved Methods for odour criteria at all sensitive receptors; and, is considered highly unlikely that the increase in odour would be detected at sensitive receptors, as discussed in paragraph 25;
  - slight exceedances, predicted by the AQIA and identified by the EPA from boiler emissions, the sulphur content of the coal to be used, emissions from the conversion of the gluten dryers to starch dryers and details of all mitigation measures, as discussed in paragraph 28; have been adequately addressed,;
  - EPA’s recommendation for the Applicant to provide a best management report prior to construction of boiler 8, as discussed in paragraph 29, has been included by the Department in the proposed conditions of consent.; and
  - the Proponent has demonstrated that it has plans in place to address the Clean Energy Regulator (CER) requirements in relation to GHG emissions.

#### 4.4.2. Hazards and risks

36. The Commission has taken into account the Material insofar as it relates to hazards and risks of the Application.

##### ***Applicant's considerations***

37. As part of its EA, the Applicant provided a Preliminary Hazard Analysis (**PHA**) prepared by Pinnacle Risk Management (**Pinnacle**) that assessed the potential hazardous events and corresponding risks associated with the Application.
38. The PHA indicated that fatality risk, injury risk, toxic exposure and propagation due to fire and explosion are acceptable. The PHA also indicated that *"Societal risk, area cumulative risk, environmental risk and transport risk is also concluded to be acceptable."*
39. From the above, the Applicant stated in its EA:

*"Pinnacle conclude that societal risk, area cumulative risk and environmental risk are acceptable."*

...

*"The primary reasons for the low risk levels from the modifications according to Pinnacle are that significant levels of impact from potential hazardous events are contained on-site."*

##### ***Department's assessment***

40. In relation to hazards and risk, the Department's MAR stated that the PHA *"...was prepared in accordance with the Department's Hazardous Industry Planning and Advisory Paper (HIPAP) No.6 – Hazard Analysis."*
41. As to the risks, the Department stated in its MAR:

*"The PHA concluded the risks from the modification would comply with the Department's risk criteria for fatality risk, injury risk, toxic exposure and propagation due to fire and explosion. The PHA concluded societal risk, area cumulative risk and environmental risk would be acceptable."*

...

*"The PHA concluded the proposed modification will have negligible impact on the cumulative risk results for the local area, as the significant radiant heat levels and or explosion overpressures are local to the equipment and do not reach other sensitive land uses located off site. The PHA included recommendations for the explosion vents, the bucket elevator and the new switch room."*

42. The Department also stated in its MAR that:

*"The Department reviewed the PHA and noted it demonstrates the risk from the site complies with the criteria adopted in NSW for new developments. The study also provides sufficient information on the safeguards to be implemented to ensure the low levels of risk are maintained. Based on the information provided, and assuming all safeguards are in place and maintained, the Department is satisfied the development does not impose an unacceptable risk to surrounding land uses."*

43. The Department made the following recommendations in its MAR:
- *"...specific control measures are detailed in a Final Hazard Analysis (FHA) for the entire*

site, approved by the Planning Secretary prior to construction. The FHA shall address cumulative and knock-on effects in potential high risk areas of the site.

- ...the Applicant undertake a design review process through a Hazard and Operability Study (HAZOP) for relevant components of the modification, such as the cationic starch process, starch dryer and cooler, gluten dryer, boiler 8 and cogeneration processes.
- ...the Applicant update the existing hazard studies and plans for the factory to include the modification. This includes the Site-Wide Fire Safety Study, Emergency Plan and Safety Management System. The modifications must also be included in subsequent hazard audits of the factory. FRNSW reviewed the modification and recommended a Fire Safety Study be prepared considering the modification in the context of the entire site. With these conditions in place, the Department's assessment concludes the hazards and risks of the modification would be appropriately managed."

### **Commission's findings**

44. The Commission notes that none of the agencies objected to the Application, as discussed in paragraph 8; and that the Department is satisfied that the key issues have been addressed, as discussed in paragraphs 40 - 43.
45. The Commission finds that the hazards and risks identified for the Application and addressed by the Applicant and the Department, are acceptable, because:
  - the Application does not impose an unacceptable societal risk, area cumulative risk and environmental risk or risk to surrounding land uses, as discussed in paragraph 38;
  - the modifications in the Application would comply with the Department's risk criteria for fatality risk, injury risk, toxic exposure and propagation due to fire and explosion; as discussed in paragraph 41; and
  - the Department has in addition included in the proposed conditions of consent, for the Applicant to implement:
    - specific control measures in a Final Hazard Analysis (**FHA**) for the entire site, approved by the Planning Secretary prior to construction; that will address cumulative and knock-on effects in potential high risk areas of the site; as discussed in paragraph 43. This is referred to in Schedule 3 - Condition 36 (c); and
    - the Applicant to update the existing hazard studies and plans for the factory to include the modification of the Application, including the Site-Wide Fire Safety Study, Emergency Plan and Safety Management System; as discussed in paragraph 43. This is also referred to in Schedule 3 - Condition 36 (c).

### **4.5. Objects of the EP&A Act and Public Interest**

46. In determining the public interest merits of the Application, the Commission has had regard to the objects of the EP&A Act.
47. Under section 1.3 of the EP&A Act, the relevant objects applicable to the project are:
  - a) *to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,*
  - b) *to facilitate ecologically sustainable development [ESD] by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,*
  - c) *to promote the orderly and economic use and development of land,*
  - e) *to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,*
  - f) *to promote the sustainable management of built and cultural heritage,*

- g) *promote good design and amenity of the built environment,*
- h) *promote the proper construction and maintenance of buildings, including the protection of health and safety of their occupants,*
- i) *to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State, and*
- j) *to provide increased opportunity for community participation in environmental planning and assessment.*

48. A key relevant object of the EP&A Act to the Application, as outlined in paragraph 47, is the facilitation of ESD. The Commission notes that section 6(2) of the *Protection of the Environment Administration Act 1991* states that ESD requires the effective integration of social, economic and environmental considerations in its decision-making, and that ESD can be achieved through the implementation of:

- a) *the precautionary principle;*
- b) *inter-generational equity;*
- c) *conservation of biological diversity and ecological integrity; and*
- d) *improved valuation, pricing and incentive mechanisms.*

49. The Commission has considered how the Application relates to the objects of the EP&A Act, and finds that the Application is consistent with ESD principles, the objects of the EP&A Act and the public interest, because the Application:

- promotes the orderly and economic use and development of land as it would not involve any works outside already approved development areas and will be within the factory site, as discussed in paragraph 21;
- protects the environment and integrates economic, environmental and social considerations for the decision-making about environmental planning and assessment, as it:
  - can effectively manage additional wastewater within the existing wastewater treatment plant and irrigation areas; as discussed in paragraph 12;
  - would have minimal impact on flooding, visual amenity, riverbank stability, contamination and acid sulphate soils; as discussed in paragraph 12;
  - would not have adverse impacts on the road network; as discussed in paragraph 12;
  - would meet existing noise limits at residential receivers; as discussed in paragraph 12; and
  - it has plans in place to address the CER requirements; as discussed in paragraph 35;
- promotes the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants, as cumulative risk from the additional infrastructure would be acceptable and the overall factory would continue to comply with the NSW land use safety risk criteria; as discussed paragraph 12;
- promotes the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State, as government agencies had been invited to comment and make recommendations on the Application, as discussed in paragraph 9; and
- provides opportunity for community participation in environmental planning and assessment referable to the Project, as the Department publicly exhibited the Application, as discussed in paragraph 8.

## 5. CONCLUSION: THE COMMISSION'S FINDINGS AND DETERMINATION

50. From the reasons above at paragraphs 21, 22, 35, 45, and 49, the Commission has determined to approve the Application, subject to the attached modification instrument.

51. The reasons for the Decision are given in this Statement of Reasons for Decision dated 18 June 2019.



John Hann  
**Member of the Commission (Chair)**



Russel Miller AM  
**Member of the Commission**