



## Application for a licence amendment

### Division 3, Part V *Environmental Protection Act 1986*

---

<b>Licence number</b>	L8623/2012/1
<b>Licence holder</b>	Unigrain Pty Ltd
<b>ACN</b>	120 061 841
<b>File number</b>	2011/011422-1~2
<b>Premises</b>	Wagin Sheep and Cattle Pellet Facility 31 Steward Road, WAGIN WA 5135 Legal description - Lot 207 on Deposited Plan 405632 Certificate Title Volume 2938 Folio 896
<b>Date of report</b>	12/06/2024
<b>Decision</b>	Licence amendment granted

# 1. Amendment description

This amendment is made according to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the existing licence issued under the EP Act for prescribed premises as set out below. This notice of amendment is hereby given under section 59B(9) of the EP Act.

This amendment is limited to the construction and operation of a new oat flour mill and packaging buildings and the associated infrastructure of the new mill and packaging infrastructure.

In completing the assessment documented in this report, the department has considered and given due regard to its regulatory framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

## 1.1 Purpose and scope of assessment

Unigrain Pty Ltd (licence holder, Unigrain) is seeking approval to construct and operate two buildings consisting of an oat flour mill and a packaging facility, with a proposed grinder/hammer mills and sieving machines. Unigrain will increase incoming mill oats to 175,000 tonnes/year, allowing 30,000 tonnes of oat groats from the existing oat mill to be milled into flour and bran products. Unigrain is also seeking approval to implement noise abatement controls consisting of infrastructure upgrades within the existing facility.

## 1.2 Background

The Wagin Sheep and Cattle Pellet facility is an oat processing facility that consists of oat and flour milling (producing husks, bran and flour) and pellet mill facility, with a current assessed capacity of 150,000 tonnes per year of incoming milled oats and output of 36,000 tonnes per year of animal feed pellets (via pellet mill). The primary purpose of the facility is the de-hulling and further processing of oats (milling and flaking) for human consumption, which in itself would not cause the premises to become prescribed. The production of stock pellet animal feed utilising the bi-product of the oat milling process does cause the premises to become prescribed under Category 23.

The original Licence issued to Morton Seed & Grain Pty Ltd on 26 April 2012 was transferred to Unigrain Pty Ltd on 5 February 2015. The premises is located 1.6 km east of the town of Wagin. The premises is approximately 13.7 ha in size and zoned rural under the Shire of Wagin's Town Planning Scheme No.2. To the north of the premises is a grain feed facility (Grainfeeds Pty Ltd), immediately adjacent to the premises on the north-west, west and south are rural residential properties.

A noise report submitted in January 2019 (*Herring Storer Acoustics 2019, Environmental Noise Risk assessment: Unigrain Wagin January 2019*), indicated that the existing facility exceeded the assigned levels at receptors 1, 2, 3 and 4 (R1 – R4, see Figure 1).

The premises was granted a licence amendment on 13 August 2019 in which the licence holder was required to investigate the risk of non-compliance with the *Environmental Protection Regulations 1997* (Noise Regulations) and detail a plan for future noise emission controls and submit this report by 25 November 2019. The report was received by the department on 10 April 2024.

# 2. Proposed amendment

The licence holder proposes to extend both the flour mill (Flour Mill 2) and packing shed (Packaging Building) to produce 30,000 tonnes per annual period of oat flour and oat bran.

The licence holder currently processes oat groats within its existing operations and with the additional flour mill and packing shed will further refine the oat groats into fine powder. In addition, the existing product packing line (Packaging Building 1) will be replaced and a new one installed.

The proposed enclosed Flour Mill 2 will have a grinding and separation system installed. The grinding system will consist of pneumatic conveying lines, a blower, tubular screw conveyors, hammer mills (x2), radial fan and cyclone separators. The flour separating system will consist of vibro-sieving machines (x10), chain conveyors, dosing weigher, pneumatic conveying lines and a blower.

Two aspiration systems (buhler dust filters) consisting of an airjet-filter, radial fan and aspirating duct will separate the dust from clean air. The cleaned air is discharged through an existing stack on Flour Mill 1 with the dust sent to the pellet mill to be turned to stockfeed.

The enclosed Packaging Buildings (1 and 2) will each consist of a paper bag and a bulk bag packing line. The product is weighed, packed, labelled, fumigated (if required) and transferred to pallets for dispatch.

## 2.1 Consultation

The Shire of Wagin advised that the applicant was issued with a Development Approval (DA1/23-24) issued on 21 September 2023. No record of noise complaints from the premises have been reported to the shire. The following DA conditions are noted with respect to noise emissions:

- Condition 5 – Noise generated by activities on-site, including machinery motors or vehicles shall not exceed the levels as set out under the Environmental (Noise) Regulations 1997.
- Condition 6 - No construction works shall commence prior to 7am and after 1pm on Saturdays or anytime Sunday and public holidays.

## 2.2 Operator history and assessment of operator

A summary of compliance history of the existing licence holder for licence L8623/2012/1 has been outlined in Table 1.

**Table 1: Summary of site inspection findings and operator compliance history.**

Findings
<p><b>31 October 2016, Annual Environmental Review (AER)</b></p> <p>Department of Environmental Conservation (DEC) noted the following environmental concern:</p> <p>That licence condition 4.1.1 has not been completed and reported. This condition required that two stormwater samples were sampled, and the results submitted within the AER. The samples were not provided nor any details of why the samples may have not been taken.</p>
<p><b>5 October 2018, Dust/debris complaint</b></p> <p>Department of Water and Environmental Regulation (DWER) (Pollution Response) received a complaint:</p> <p>A dust/debris complaint was received by an adjacent landholder indicating that grain husks and litter were blown throughout their premises. The issue was resolved through the licence holder covering all husk grain piles that were located outside and the remainder stored inside an enclosed shed.</p>
<p><b>12 February 2024, Application for amendment</b></p> <p>Department of Water and Environmental Regulation (Industry Regulation) note the following:</p> <p>The licence holder has not undertaken and submitted noise investigation, monitoring and reporting required under conditions 2.3.3 and 2.3.4. A report outlining noise mitigation measures was submitted late on 10 April 2024.</p>

### 3. Noise assessment

#### 3.1.1 Operation

SLR Consulting Australia (SLR) was commissioned by Unigrain to carry out an Environmental Noise Impact Assessment (ENIA) for the existing and proposed operational noise levels at four sensitive rural/residential receptors.

The assessment included a noise assessment for assigned noise levels (worst case night time levels) using noise model CONCAWE / SoundPlan to predict noise impacts on sensitive receptors for:

- existing operations,
- proposed expansion flour mill operations
- mitigation works for existing operations and
- mitigated works for proposed flour mill expansion.

The ENIA identified the following noise sources from the existing and proposed flour mill operations.

#### Existing operations

- Pellet mill
- Dust collector on pellet mill
- Oat mill dust collectors

#### Proposed flour mill operations

- Two external roof vent stacks. Noise is associated with centrifugal fans fitted with discharge silencers.
- Five vibro-sieve units (enclosed within building).
- Two hammer mills.
- Two high-pressure fans with intake and discharge ducted to enclosed vessels.

The ENIA-assigned levels included influencing levels based on the proximity of the receivers to industrial and commercial zone areas and tonality. Table 2 outlines the predicted noise levels with influencing factors used within the assessment and the existing and proposed operations with proposed mitigation measures.

**Table 2: Compliance noise assessment for night time period**

Receptors	Predicted Noise levels, dB with tonality and influencing factor (IF)	Noise Regulations Night-time assigned levels LA10 dB	Noise Regulation compliance or exceedance (dB)
<b>Existing operations without mitigation controls, pellet mill operating</b>			
R1	55	41	+14, exceeds
R2	52	41	+11, exceeds
R3	42	39	+3, exceeds
R4	39	35	+4, exceeds
<b>Existing operations with mitigation controls, pellet mill operating</b>			

R1	48	41	+7, exceeds
R2	47	41	+6, exceeds
R3	38	39	+1, exceeds
R4	31	35	-4, complies
<b>Existing and proposed operations with mitigation controls, pellet mill operating</b>			
R1	48	41	+7, exceeds
R2	47	41	+6, exceeds
R3	38	39	+1, exceeds
R4	30	35	-5, complies

The proposed noise mitigation measures consisted of the following:

#### Existing infrastructure

- Enclose the pellet mill with a 6m high acoustic enclosure.
- For the existing oat mill dust collector stack – replace the galvanized sections and stack on the fan discharge with a silencer to a stack height of 5 magl.
- Existing pellet mill dust collector fan – proposed to place an acoustic enclosure around the fan.

#### Proposed oat flour mill

- All equipment located within an enclosed building, incorporating noise mitigation measures for major noise sources.

Unigrain has indicated that the pellet mill is required to operate at night for operational reasons. It is noted that existing operations, the proposed flour mill operations, and the proposed noise mitigation measures to existing and proposed infrastructure indicate that Noise Regulations nighttime noise levels were exceeded at three sensitive receptors from 1 to 7 dB.

### 3.1.2 DWER findings

The department reviewed the methodology of the noise assessment, as presented in the ENIA and concluded it was undertaken to an acceptable level to inform the assessment of the risk of noise emission impacts. The noise assessment program SoundPlan, algorithm CONCAWE, the selection of meteorological conditions, inputs into the model including topography, noise sources and their sound power levels, influencing factors and tonality and worst case night time scenario all appeared reasonable.

The delegated officer determined that noise emissions from the proposed oat flour addition will be significantly lower than the existing operation, and agreed that the proposed oat flour mill addition, which is fully enclosed with various noise mitigation measures, will not significantly contribute to the overall noise emission levels from Unigrain flour mill, and will not significantly add to existing receptors noise emissions.

### 3.1.3 Noise exceedance

The delegated officer notes that the mill has been a noise non-compliant site, due to the proximity of the two neighbouring residences to the west (R1 and R2), and considers the investigation undertaken in the ENIA, produced several viable noise mitigation measures aiming

to achieve the noise compliance for the mill. The delegated officer reviewed all the proposed noise mitigation measures and agreed that they are all effective and practicable and will be conditioned within the proposed amendment for the flour mill expansion. However, the delegated officer considers that noise emissions from the mill may not be practicably mitigated to fully comply with the night-time assigned noise levels at the closest neighbouring residences, due to their proximity.

It is noted, the licence holder has indicated that the existing noise emission levels generated from the mill are considered acceptable to all of the closest residences (see Figure 1). With no complaints registered to the department for licence L8623/2012/2, nor to the Shire of Wagin. This may be regarded as a kind of agreement from the affected residents over noise emissions from the mill. The closest receptors R1 – R4 to the premises are illustrated in Figure 1.

The delegated officer considers that the current close receptors are tolerant of noise levels. However, Unigrain needs to be aware that in any situation when a noise complaint is made by one of the neighbouring residents, then Unigrain will be required to demonstrate noise compliance at the residence of the complainant, or will be subject to enforcement action under the Noise Regulations.

**Figure 1: Unigrain premises and four close receptors (R1 – R4)**



## 4. Risk assessment

The table below describes the risk events associated with the amendments consistent with the *Guidance Statement: Risk Assessments* (DER 2017). The table identifies whether the risk events are acceptable and tolerated, or unacceptable and not tolerated, and the appropriate treatment and degree of regulatory control, where required.

**Table 3: Risk assessment**

Source/ Activities	Risk Event			Consequence rating <sup>1</sup>	Likelihood rating <sup>1</sup>	Risk <sup>1</sup>	Reasoning	Regulatory controls
	Potential emissions	Potential receptors, pathway and impact	Licence holder controls					
<b>PROPOSED AMENDMENT</b>								
<b>Construction</b>								
Construction of building and placement of equipment and associated equipment including vehicle movements (reversing beepers)	Noise	Air/windborne pathway causing impacts to health and amenities of nearby rural residences 100m northwest, 160 m west, 380 m south and urban residential 1.4 km west of the proposed mill.	No controls	Minimal impact to amenity <b>Slight</b>	The risk event could occur at some time. <b>Possible</b>	<b>Low</b> Acceptable, generally not controlled.	The proposal to build two new buildings, the installation of processing equipment inside and noise mitigation upgrades are likely to be of short duration and occur during daylight hours. The delegated officer considered the distance to receptors', existing operations and determined the risk to be low and with any emission to receptors to be of short duration.	No controls
<b>Operational</b>								
Operation of the oat flour mill, including delivery and dispatch of product. Grinding, sieving, packaging, unloading, loading and storage of material  Vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenities of nearby rural residences 100m northwest, 160 m west, 380 m south and urban residential 1.4 km west of the proposed mill.	Two buhler dust filters direct dust to the pellet mill and clean air through the existing cyclone stack. Activities occur within an enclosed building.	Low-level impacts to amenity. <b>Minor</b>	The risk event will probably not occur in most circumstances <b>Unlikely</b>	<b>Medium</b> Acceptable, generally subject to regulatory controls	The proposal to operate a flour mill and packaging facility will occur within enclosed buildings with two Buhler dust filters directing dust to the pellet mill and returning clean air through the existing stack. The delegated officer considered the distance receptors and the licence holder controls and determined the risk to be medium. The delegated officer determined to condition the licence holders' controls to manage the risk.	Licence holder construction and operation controls.
	Noise		New flour mill 2 and packaging shed to be fully enclosed. Flour mill 2 and will have two external roof vent stacks with centrifugal fans fitted with silencers; vibro sieve units self-enclosed; hammer mills enclosed within concrete walls with acoustic barrier doors; internal pressure fans with intake and discharge ducted to enclosed vessels. <u>Existing infrastructure</u> : replace galvanised sections on the 9 magl stack, fit with a silencer and reduce stack to 5 magl, so it is lower than existing buildings. The silencer will have melinex film between the insulation and perforated metal inner facing. Enclose the existing fan associated with pellet mill dust extraction/cyclone within an acoustic enclosure. The pellet mill will be enclosed with a 6m acoustic enclosure (open top) that includes intake and discharge ducting.	Mid-level impact to amenity <b>Moderate</b>	The risk event is expected to occur in most circumstances <b>Almost certain</b>			<b>High</b> Risk event may be tolerated and may be subject to multiple regulatory controls.
	Sediment laden stormwater	Overland runoff potentially causing ecosystem disturbance or impacting surface water quality of Carbakine Creek and seasonal inundated wetland of Coblinine system 750 m and 590 m east of the premises boundary respectively.	Activities occur within an enclosed building. Stormwater is directed to the existing stormwater dams.	Onsite impacts low, offsite local scale impacts minimal. <b>Minor</b>	The risk event may only occur in exceptional circumstances <b>Rare</b>	<b>Low</b> Acceptable, generally not controlled.	The proposal will operate the flour mill and packaging facility within enclosed buildings and direct all stormwater to the existing stormwater dams. The delegated officer considered the distance to the receptor, and the existing controls and determined that the risk of contaminated stormwater impacting surface water bodies was low.	Existing controls

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).

## 5. Decision

The delegated officer has determined the proposal to construct a second flour mill and packing buildings to increase the size of the existing incoming milled oat's maximum production from 150,000 tonnes to 175,000 tonnes is unlikely to result in a material change to the existing overall risk profile of the premises. This determination is based on the following:

- Noise mitigation works for existing noise emission infrastructure will result in a reduction in existing assigned nighttime noise levels at all receptors.
- The proposed flour mill and packaging buildings will be enclosed and contain all proposed manufacturing equipment.
- The proposed oats flour mill addition, as it is fully enclosed with various noise mitigation measures, will not significantly contribute to the overall noise emission levels from the premises, and will not significantly add to receptor emissions.
- Dust emissions from the proposed flour mill will be linked to the existing flour mill dust/air cleaning systems.
- The proposal will not involve changes to existing stormwater management.

The delegated officer determined that the licence holders proposed controls to be sufficient and were conditioned within the licence amendment.

However, the delegated officer regards the granting of the licence amendment does not authorise the licence holder to exceed Noise Regulations. The licence holder is required to implement all the practicable noise mitigation measures to continuously reduce the noise emission levels received at the closest residences. Furthermore, the licence holder should investigate further noise mitigation measures to demonstrate compliance with the Noise Regulations.

### 5.1 Consolidation

As part of this amendment, the delegated officer has consolidated the licence by incorporating changes made under previous amendment notices (expiry date change and removal of Annual Environmental Reporting). No additional assessment has been conducted as part of this consolidation. Decisions relating to the consolidated licence are published in previous amendment notices, and in accordance with section 59(1) of the EP Act, incorporating these changes into a single amended licence is not appealable.

In amending the licence, the delegated officer has also:

- updated the format and appearance of the licence;
- revised condition numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency;
- corrected clerical mistakes, grammatical and unintentional errors, and
- updated Unigrain Pty LTD, registered address as per ASIC Current Company Extract issued on 30 January 2024.

The decision report for the previous licence will remain on the DWER website for future reference and will act as a record of DWER's decision-making.

### 5.2 Licence holder comments on draft decision

The licence holder was provided the draft amended licence and decision report on 28 May 2024 and provided a response on the 6 June 2024. A summary of the comments made by the licence holder following the 21 day comment period is located within Appendix 1.



## 6. Conclusion

Based on this assessment, it has been determined to amend the existing licence, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

### 6.1 Summary of amendments

Table 4 provides a summary of the proposed amendments and will act as a record of implemented changes. All proposed changes have been incorporated into the revised works approval as part of the amendment process.

**Table 4: Amendment summary**

Condition no.	Proposed amendments
Cover page	Restructured to indicate what prescribed activities have been risk assessed. Registered address updated inline with ASIC extract. Category 23 production capacity increased from 150,000 to 175,000 tonnes/year
Introduction	Deleted, consistent with current DWER template. This guidance is now available in DWER's Guide to Licensing (June 2019).
History	Updated, consistent with current DWER template.
Interpretation	Inserted, consistent with current DWER template. Supersedes previous conditions 1.1.1, 1.1.2, 1.1.3, & 1.1.4.
Works Condition 1, 2 & 3, Table 1	New conditions for the construction of the proposed flour mill 2 , packing shed 2 and modifications to existing infrastructure.
Operation Condition 4	New condition to allow new infrastructure to be operated.
Operation Condition 5, Table 2	New table was added to specify operational requirements for the key site infrastructure, including animal and food production and fuel-burning activities. Replaces conditions 1.2.5,1.3.1, 1.4.1, and Schedule 3 Infrastructure.
Emission and discharges, Noise Conditions 6 and 7	Update noise condition replaces conditions 2.3.1 and 2.3.2.
Monitoring -process Condition 8 and Table 3	Update condition replaces condition 3.1.1
Records and reporting	Deleted, redundant conditions 4.1.1 and 4.1.2.
Records and reporting Condition 9	Complaints condition updated to be consistent with the current DWER template, replacing condition 4.1.4
Records and reporting	AACR condition updated consistent with current DWER template, replacing condition 4.1.3.
Records and reporting Condition 11	Annual record-keeping requirements inserted, consistent with current DWER template.
Records and reporting Condition 4.2.1	AER condition removed, as per Amendment Notice issued on 16 May 2022
Definitions Table 4	Definitions deleted: assigned levels, code of practice, environmentally hazardous material, licence and schedules– conditions which contained these references have been removed, consistent with current DWER template, as part of this amendment.  Definitions added: ACN, Annual Compliance Report, Department, emission, EP Act, EP Regulations, licence, magl, monthly period, prescribed premises, suitably qualified technical engineer.
Schedule 1: Premises map, Figure 1	Premises map updated to a more recent aerial photo.
Schedule 1: Site layout map, Figure 2	Site layout map updated to a more recent aerial photo.
Schedule 1 Site layout of	Site layout map updated to a more recent aerial photo outlining the new mill and

milling and animal production area map Figure 3	packaging areas.
Schedule 1: Site layout – manufacturing plant and emission point locations Figure 4	Site layout updated to a more recent and clearer map
Schedule 2 Prescribed premises categories	Deleted and prescribed premises categories are placed on the front page of the licence.
Schedule 3: Infrastructure	Deleted and information placed within Condition 5 Table 2 Infrastructure and equipment requirements.

## References

1. Department of Environment Regulation (DER) 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2019, *Guideline: Decision Making*, Perth, Western Australia.
3. DWER 2019, *Unigrain Pty Ltd, Licence L8623/2012/1 issued on 13 August 2019*, Perth, Western Australia
4. DWER 2019, *Unigrain Pty Ltd, Decision Report L8623/2012/1 issued on 13 August 2019*, Perth, Western Australia
5. SLR 2024, *Unigrain Wagin: Environmental Noise Assessment*, Subiaco, Western Australia.
6. Unigrain Pty Ltd 2024, *Licence amendment application and supporting documents*, Geelong, Victoria.

## Appendix 1 - Summary of licence holder's comments on risk assessment and draft conditions

Document reference	Licence holder comment	DWER response
Condition 1 Table 1 Infrastructure and equipment construction	The licence holder noted that the ENIA indicated that the vibro sieve units are self enclosed. It was a vague term that meant the vibro sieve units are located within an enclosed building, not self enclosed within an enclosed building. Licence holder requested that this is updated in the table.	This has been updated.
Condition 5 Table 2 Infrastructure and equipment requirements	A map of the fly ash storage and point source is provided.	This has been updated.