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10 November 2016

Mr Peter Youil
Strategic Projects Manager Asia Pacific
Cargill Malt, Cargill Ltd
65 Magill Road,
STEPNEY, SA, 5069

PJRA Reference: Ltr-752.3-001

Dear Peter,

Re: Review of Independent Environmental Audit October 2013 in relation to proposed Modification 4 to Cargill Malt facility at 11 Stonny Batter Road, Minto, NSW

The proposed modification (Modification 4) to operation at Cargill Malt's facility located at 11 Stonny Batter Road, Minto, NSW (the site) will allow for an increase in the volume of barley that may be delivered to the site by road rather than rail transport. The Department of Planning & Environment has asked you to provide information as described below.

A hazard and risk assessment is also required to ensure:

- *The plant design is appropriate to ensure that hazards and risks from grain dust fires and explosions are assessed and necessary safeguards are in place; and*
- *The proposed importing of materials by road will not introduce any new risks associated with grain dust and fire risks. The assessment should detail any additional safeguards to be implemented to minimise or control these risks.*

This letter report is prepared based on information provided in the most recent Independent Environmental Audit Report, from October 2013 (attached) and a site visit by Peter J Ramsay & Associates Pty Ltd (PJRA) performed on 7 November 2016.

Relevant Sections of the Environment Audit Report

5.1 Site Activities

It is relevant to note that the site has been designed to have the capability of accepting delivery of barley from road trucks.

On our recent site visit we were shown that the equipment for barley intake from road trucks is housed within a building and the receival pit is under negative pressure during operation. These are the same conditions under which barley is received from rail containers.

6.2.5 Hazard Identification and Risk Assessment

The site has prepared a hazard identification and risk assessment (HIRA) matrix. The environment audit report did not perform an audit of occupational health and safety although it is noted that the HIRA matrix includes safety risks.

The potential for grain dust fires has been considered through the HIRA matrix. PJRA staff were provided with hazardous area classification diagrams and warned on entering areas of the site classified as hazardous during the site visit.

Should you wish to discuss any matters concerning this letter or the project in general, please contact me on 03 9690 0522.

Yours sincerely,

Nathan Williams
Senior Consultant
Peter J Ramsay & Associates

Attached:
Joe White Maltings Pty Ltd, Independent Environmental Audit, 11 Stonny Batter Road, Minto, New South Wales, October 2013.

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JOE WHITE MALTINGS PTY LTD

INDEPENDENT ENVIRONMENTAL AUDIT

11 Stonny Batter Road, Minto, New South Wales

October 2013

Authors

Primary Author: Dr Julie Moriarty, Senior Consultant

Senior Review: Ms Alison McRae, Associate

Distribution Record

Recipient	Report Status	Date Issued
Mr Miroslav Prazak Joe White Maltings Pty Ltd 11 Stonny Batter Road MINTO NSW 2566	Final	17 October 2013
Peter J Ramsay & Associates Internal Copy	Final	17 October 2013

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USE OF REPORT

The preparation of this report has been undertaken for the purpose of providing the results of an environmental audit of the premises at the Joe White Maltings Pty Ltd facility, 11 Stonny Batter Road, Minto, NSW, and this report cannot be used for any other purpose.

This report is prepared solely for the benefit of Joe White Maltings. This report is provided on the condition that it or any part of it, will not be made available to, or relied upon by any other party for any purpose except with the prior written consent of Peter J Ramsay & Associates Pty Ltd (which consent may or may not be given at its discretion). Peter J Ramsay & Associates Pty Ltd consents to Joe White Maltings Pty Ltd making this report available to other parties for the purpose of showing the scope of, and the recommendations provided in, this report, however those third parties cannot rely on the contents of this report.

DISCLAIMER

This report is provided on the condition that Peter J Ramsay & Associates Pty Ltd disclaims all liability to any person other than Joe White Malting in respect of the actions, errors or omissions of any such person in reliance, whether in whole or in part, upon the contents of this report.

LIMITATIONS

Peter J Ramsay & Associates Pty Ltd has undertaken this audit in accordance with EPA and National guidelines, as well as AS/NZS ISO 19011:2003, *Guidelines for Quality and/or Environmental Management Systems Auditing*. The nature of an assessment is influenced by factors such as professional judgement, selective testing of representative samples from the site and the reliability of the information relating to the site which was obtained by the methodology described in this report. Reasonable care has been taken to verify the accuracy of the data and information available to Peter J Ramsay & Associates Pty Ltd.

Our findings presented in this report are based on the information available to us during this audit, and some of those findings could vary if the information upon which they are based is determined to be false, inaccurate, or incomplete. Peter J Ramsay & Associates Pty Ltd disclaims all liability to any person for events taking place after the time during which the audit was undertaken.

EXECUTIVE SUMMARY

An environmental audit of the facility at 11 Stonny Batter Road, Minto was undertaken for Joe White Maltings Pty Ltd (JWM). The independent environmental audit is a requirement of Schedule 4, Condition 5 of the NSW Department of Planning Project Approval for the site.

The scope of the audit was to assess the environmental performance of the facility with regards to relevant standards, performance measures and statutory requirements, examine the adequacy of the plans, programs and systems in place, and recommends measures to improve the environmental performance of the site. The audit was undertaken in accordance with AS/NZS ISO 19011:2003, *Guidelines for Quality and/or Environmental Management Systems Auditing.*

The JWM facility is a malting facility which produces malt from barley. The site is licensed under Environment Protection Licence (EPL) 20062 to undertake agricultural processing.

The site visit for the environmental audit was undertaken on 30 August 2013. The site operations were reviewed, and environmental management practices at the site were evaluated. Interviews with site personnel were conducted. The site has a safety, health and environment (SHE) management system and has undertaken monitoring for noise emissions, and ambient odour. Nitrogen oxide and sulphur dioxide emissions monitoring from the kiln burner stacks has also been undertaken. Inspections of the site are undertaken on a daily basis.

The results of the audit indicate that the site is in compliance with all licence, project approval (PA) and statutory conditions except for the licence and PA conditions for noise emissions, and the PA condition for preparing an environmental management strategy (EMS) for the site. Since elements required in the EMS are addressed in the site's SHE management system, it is not considered necessary that a separate environmental management strategy be prepared.

Noise surveys in May 2013 at the nearest sensitive receptor, which were undertaken during normal site operations, indicate that the contribution of the JWM operations to the noise environment is above the EPL limits for all monitoring periods. The surveys also indicate that the dominant contribution to the noise environment is traffic noise; however, when no traffic is present, the dominant noise is from the fan at JWM and the heating and ventilation system at Lipa Pharmaceutical (adjacent to JWM).

Since commissioning of the site, there have been no registered complaints. Furthermore, intermittent or impulsive noise sources, which are generally the types of noise that are responsible for sleep disturbances, are not present at the JWM site. A recommendation of the audit is that JWM, together with the noise consultants, further investigate the measured ambient noise levels in order to determine the need to install noise control measures for the fans at the site. This may involve a discussion with the EPA.

LIST OF ABBREVIATIONS

ARI	Average Recurrence Interval
CO_2	Carbon Dioxide
DG	Director General
ECP	Emergency Control Plan
EML	EML Air Pty Ltd
EMP	Environmental Management Plan
EPA	Environment Protection Authority
EPL	Environment Protection Licence
GLC	Ground Level Concentration
HIRA	Hazard Identification and Risk Assessment
JWM	Joe White Maltings Pty Ltd
MSDS	Material Safety Data Sheet
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
PA	Project Approval
PID	Plant Identification Number
PIRMP	Pollution Incidence Response Management Plan
POEO	Protection of the Environment Operations
RCA	RCA Australia
SHE	Safety, Health, Environment
SO_2	Sulphur Dioxide
TN	Total Nitrogen
TP	Total Phosphorous
TSS	Total suspended Solids
TWA	Trade Waste Agreement
WH&S	Work, Health and Safety
WWTP	Waste Water Treatment Plant

1. INTRODUCTION

On 20 August 2013, JWM engaged Peter J Ramsay & Associates to undertake an environmental audit of the JWM facility at 11 Stonny Batter Road, Minto, NSW (the site). The audit was required by Schedule 4, Condition 5 of the PA issued by the Department of Planning for the site in 2009. The audit was performed in accordance with NSW Environment Protection Authority (EPA) and National Guidelines, as well as AS/NZS ISO 19011:2003 Australian/New Zealand Standard, *Guidelines for Quality and/or Environmental Management Systems Auditing*.

The facility is a malting facility that produces malt from raw barley. It holds an Environment Protection Licence (EPL) for the scheduled activity of agricultural processing. The facility received project approval from the Department of Planning in 2009, was constructed in 2010/2011 and began operations in 2012.

2. OBJECTIVES

The objective of the environmental audit, as outlined in Schedule 4 of the Project Approval (PA), is to:

- Assess the environmental performance of the project, and whether it is complying with the relevant standards, performance measures and statutory requirements;
- Review the adequacy of any strategy/plans/programs/system required under the PA; and
- Recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program/system required under this approval.

3. SCOPE

The scope of the Environmental Audit at the JWM site, 11 Stonny Batter Road, Minto, included:

- Review of relevant documentation on the site held by JWM, including the EPL and PA for the site;
- Review of the Viterra Safety, Health, Environment (SHE) Management System;
- Review of procedures, including corrective action, training and contractor management;
- Review of plans, including the Pollution Incident Response Management Plan (PIRMP) and the Emergency Control Plan (ECP);
- Review of the Dangerous Goods Notification and the site manifest;
- Review of the Environmental Management Plan (EMP);
- On-site audit of the facility on 30 August 2013;
- Review of air, odour and noise monitoring reports prepared for the facility;
- Assessment of the compliance of the monitoring data with the regulatory approvals and statutory legislation;
- Review of the stormwater and sewer drainage systems;
- Review of the Stormwater Management Plan;
- Consideration of key environmental issues and the adequacy of the plans and procedures to manage these issues;
- Assessment of the compliance of the site operations with the EPL, PA and statutory requirements; and
- Recommendations of measures or actions to improve the environmental performance of the project.

4. SITE DESCRIPTION

The land subject to this investigation is located south west of the Sydney metropolitan area, in the suburb of Minto. The location of the site is shown in Figure 1.

Key features of the site and adjacent land uses are described in the sections below.

4.1 Site Details

Table 1 Summary of Site Details

Site Address	11 Stonny Batter Road, Mint, NSW
Site Area	Approximately 2.8 hectares
Occupier	Joe White Maltings Pty Ltd
Owner	Joe White Maltings Pty Ltd
Certificates of Title	Lot 201 Plan (DP) 813362.
Local Government Administration	Campbelltown City Council
Zoning	Industrial
Adjacent Land Uses	North: Qube Transportation (container yard) South: Lipa (pharmaceutical company) East: Warehouse West: Container yard and railway siding
Topography	The site and local topography slopes westerly.
Surface Conditions	The facility is sealed with concrete. The concrete surfaces appear to be in good condition.

4.2 Site History

The facility is a new operation, having received planning approval from the Department of Planning in 2009. Prior to this, the site was a warehousing facility. Development of the site took place between 2009 and 2012, when the existing warehouse buildings, structures and surfaces were demolished, and the malting plant was constructed.

Operations at the facility began in 2012. The development of the facility was undertaken when JWM was a subsidiary of Viterra. In August 2013, JWM was sold to Cargill.

4.3 On-Site Buildings and Facilities

A summary of the on-site buildings and facilities is provided in Table 2. A site plan is provided in Figure 2.

Table 2 Summary of Buildings and Facilities Observed On-site

Structures and Surface Conditions	
Buildings and Structures	The buildings on-site comprise an office building, a laboratory and a maintenance shed. The laboratory uses small amounts of chemicals. The maintenance shed has diesel oil and a flammable good store.
Surface Conditions	The hardstand area is concrete, and appears in good condition.
Above Ground Storage Tanks	
Barley Silos	Nine barley silos are present at the site. Four of the silos have a capacity of approximately 800 tonnes per silo, and five of the silos have a capacity of approximately 570 tonnes each.
Steeping Tanks	Six steeping tanks are present and used for hydrating the barley. Capacity is approximately 60 tonnes per tank. They are located within concrete housing.
Germination Tanks	Four germination tanks are present and the capacity is approximately 360 tonnes per tank. Used in the germination process.
Kiln	Capacity is approximately 360 tonnes. Used for drying.
Malt Silos	Capacity is 680 tonnes per silo. Used for storing product.
Mains Water Tank	Capacity is approximately 500 kL. Used in the manufacturing process.
Recycled Water Tank	Capacity is approximately 300 kL. Stores potable standard water from the waste water treatment plant (WWTP) and the reverse osmosis plant that is used for cleaning the germination vessels.
Other Facilities and Installations	
Burner Room	The site has three natural gas burners used to warm air for the kiln drying process. Emissions are discharged through three stacks located west of the burner room.
Waste treatment facilities	The site has a WWTP located near the eastern boundary. The WWTP treats water from the steeping process, as well as kiln condensate, before disposing to sewer.

Stormwater System	The stormwater system has drains across the site, which empty into one of two interceptor pits, at the north western and south western corners of the site. The approximate capacity of each pit is 10 m^3.
Trade Waste Drainage System	Water is reticulated in the trade waste system from the steep house and germination vessels back to the WWTP. After treatment in the WWTP, it is discharged off-site in the south western corner of the facility. Drains in the germination vessels and kiln empty into the trade waste drainage system.
Refrigeration Room	The refrigeration room uses ammonia chillers to cool water. The chilled water is used for extracting heat generated during the germination process.
Centrifuge	A centrifuge is housed just north of the WWTP, and is used to separate sludge from the mixed liquor of the WWTP.
STORAGE AREAS	
Dangerous Goods Storage	A dangerous goods store is located north of the WWTP and is situated outside in a secure caged, bunded area. There is a decontamination shower adjacent to the dangerous goods store. In addition, approximately 410 litres of ethanol is stored in a flammable goods cabinet within the steep-house, anhydrous ammonia is contained within in an enclosed system in the refrigeration plant, and aqueous bisulfite solution is stored in the chemical store.
Chemical Storage	Chemicals are stored in a secure area adjacent to the north-eastern germination tank. The store is bunded.
Flammable Goods Storage	There are five flammable goods cabinets on-site: two in the maintenance building, two near the WWTP and one near the steep house.
Major Waste Storage Areas	Sludge from the WWTP is collected in two hook bins (called isotainer cisterns), adjacent to the WWTP and the dangerous goods store.

5. SITE OPERATIONS

5.1 Site Activities

JWM processes malt from barley, which is then sold to breweries. Barley is delivered to the site at a rate of approximately 5,000 tonnes per fortnight. Delivery is primarily in containers shipped by rail, although the plant has also been designed to take delivery of barley from road trucks.

The containers are forklifted from the rail yard adjacent to the site, and emptied into the barley receival pit, which is an underground pit near the western side of the site. The barley receival pit is at negative pressure and has a dust control system that minimises particulate emissions during unloading. The barley is cleaned and impurities removed, then steeped in steeping tanks for a duration of 12 to 20 hours, where it is aerated. During this time the barley absorbs water, and "respires" to produce carbon dioxide (CO_2).

When the barley is hydrated and begins to show signs of germination, the grain is transferred to one of the four germination vessels where biochemical reactions inside the grain kernel produce enzymes that can convert starches to sugars. The germination process produces heat and CO_2, and takes approximately four days. Due to the heat built up during the process, chilled water from the refrigeration plant is used to cool the germination vessels.

The water from the steeping process is sent to an on-site WWTP, which treats the water for re-use.

From the germination vessels, the grain is sent to a kiln where it is dried and cleaned. Drying halts the germination process. The by-product of the cleaning process is rootlets which are packaged in 60 m^3 tanks and sold as livestock feed. The barley product is stored in silos until collection by rail for transportation. The site ships approximately 8,500 tonnes of malt per month.

The site operates 24 hours per day, seven days per week. Site attendance hours are from 6 am to 6 pm, seven days per week. The plant is operated remotely during unattended periods.

5.2 Licence Conditions

The JWM site is licensed under EPL 20062 for a scheduled activity of agricultural processing in excess of 100,000 tonnes of agricultural produce per year. The license was issued on 8 May 2012, and is kept on-site in the plant manager's file. All conditions on the licence are relevant to the environmental audit. A special condition of the audit required JWM to commission an independent air quality audit. This has been undertaken and was submitted to the EPA on 13 May 2013.

5.3 Project Approval

On 12 May 2009, the Minister for Planning approved the project application for the Minto Malting and Grain Project, under Part 3A of the *Environmental Planning and Assessment Act 1979*. The PA specified administrative and environmental conditions for the project, as well as requiring a statement of commitments from JWM for various aspects of the project. The environmental conditions covered all aspects of environmental impacts, both pre and post commissioning, and also included conditions on reporting and auditing.

5.4 Site Inspection

The site was inspected by Peter J Ramsay & Associates on 30 August 2013. The weather on the day of the visit was warm and dry, with very little wind.

The housekeeping at the site appeared excellent, and the recent construction of the facility was evident in the good condition of the site surfaces and structures. There is an office, laboratory and maintenance shed on-site. The laboratory does mostly instrumental analyses and thus very few chemicals are used.

There are numerous large vessels on site, including germination vessels, a kiln and silos. Three burners powered by natural gas are used to heat air for use in the drying process. A refrigeration room is also on-site. The refrigeration cycle uses ammonia chillers for extracting heat generated during the germination process.

The dangerous goods store to the north of the WWTP was inspected. It is a secure caged area, with material safety data sheets (MSDSs) available. The dangerous goods store comprises chemicals used in the WWTP, including sodium hypochlorite, caustic, ammonia, hydrochloric acid and citric acid in 1,600 litre containers. These containers have secondary containment. The area where trucks deliver dangerous goods is also bunded with permanent concrete bunding.

The WWTP is bunded. Sludge from the WWTP is centrifuged to separate water from the sludge and the sludge is then transferred in a closed system to isotainers. The isotainers are collected by an external waste collector approximately six times per week and on-sold as a soil conditioner to a farming industry. There is a drain in the sludge collection area for collection of any spillage during loading, and this drain empties into the trade waste drainage system, which is then reticulated back to the WWTP.

There are two drainage systems on site: the stormwater drainage system and the trade waste system. The stormwater drainage system discharges off site from two interceptor pits at the north-western and south-western corners of the site. The trade waste discharges to sewer in the south-western corner of the site.

There are two water tanks on site: mains water, used in the manufacturing process, and recycled water. The recycled water is potable standard water from the WWTP, and this is used to clean the germination vessels and kiln. Remaining effluent from the WWTP is discharged continuously to sewer under a trade waste agreement (TWA) with Sydney Water. Samples of effluent discharged to sewer are collected monthly and sent to an external laboratory for testing. The mains and recycled water tanks are not located within the bunded WWTP.

The chemical store was secure and bunded. At the time of inspection, it contained hypochlorite and other cleaning solutions. MSDSs were available in the store.

6. ENVIRONMENTAL MANAGEMENT

6.1 Legislative Requirements, Environmental Permits and Guidelines

Legislative requirements, permits and guidelines used to in the environmental audit to assess compliance, and which apply to the site are shown in Table 3.

Table 3 Relevant Legislation, Permits and Guidelines

Environmental Permits
Environment Protection Licence 20062, issued to Joe White Maltings Pty Ltd, 8 May 2012
Project Approval 08_0157, issued to Joe White Maltings Pty Ltd, 12 May, 2009
Trade Waste Agreement, Sydney Water, 22 August 2013
Legislation/Regulations
Protection of the Environment Operations Act, 1997
Protection of the Environment Operations Regulation, 2009
Protection of the Environment Operations (Clean Air) Regulation, 2010
Protection of the Environment Operations (Waste) Regulation, 2005
Work Health and Safety Act, 2011
Work Health and Safety Regulation, 2011
Guidelines/Standards
AS/NZS 19011:2003: Guidelines for Quality and/or Environmental Management Systems Auditing
AS/NZS 1940-2004: The Storage and Handling of Flammable and Combustible Liquids
NSW EPA (formerly Department of Environment and Climate Change), Storing and Handling of Liquids, May 2007
Work Cover NSW: Storage and Handling of Dangerous, Code of Practice, 2005
NSW Industrial Noise Policy 2000
NSW EPA (formerly Department of Environment and Conservation) Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales, 2005
NSW EPA (formerly Department of Environment, Climate Change and Water) Waste Classification Guidelines, 2009

6.2 Facility Environmental Management

6.2.1 Environmental Management System

At the time of the audit, JWM was no longer a subsidiary of Viterra. However it was still in a transitional arrangement, and operating under the Viterra management systems.

JWM operates its SHE management system out of the Viterra head office in Adelaide. This management system addresses all functions of management, and applies to all sites in Australia. The Viterra corporate safety advisor manages the SHE system in Australia, and also conducts quarterly site audits. The SHE system has been written according to ISO 14001, however it has not yet been accredited.

JWM has a SHE handbook that covers all elements of environmental management. SHE meetings are held monthly. These meeting are recorded, and it is expected that all personnel attend them.

6.2.2 Environmental Management Strategy

A requirement of the PA is to prepare an EMS to be submitted to the Director General (DG) of the Department of Planning prior to commencement of construction. The EMS should identify the relevant statutory obligations that apply to the project, and describe procedures to inform the community about the environmental performance of the project, as well as procedures to deal with any complaints that are received. The roles and responsibilities of all key members of the project should be described.

The elements required in the EMS are addressed in the corporate SHE system. Senior management are responsible for identifying all relevant statutory obligations, and ensuring that JWM is in compliance with its obligations. The environmental performance of the facility is described in the annual returns, and is publically available on the EPA website. Furthermore, if a pollution incident takes place, a requirement of the facility's PIRMP is to notify the neighbouring properties. There is a procedure for logging complaints into the company incident report database. This triggers corrective actions and a response to the complaint is then made by the corporate SHE representative or the plant manager.

6.2.3 Environmental Management Plan

The site has an EMP. It is a high level plan that addresses eight different environmental aspects, and sets targets and actions to achieve environmental goals.

6.2.4 Environmental Policy

JWM has an environmental policy that is reviewed annually by executive management. This policy applies to all company activities, including those undertaken by contractors. It commits JWM to compliance with all environmental laws and permits, and to continually evaluate and improve performance to minimise environmental risk.

6.2.5 Hazard Identification and Risk Assessment

The site has a hazard identification and risk assessment (HIRA) matrix that is reviewed and updated annually. All site personnel are involved in developing the HIRA matrix. The HIRA matrix includes all identified risks at the site, including safety risks as well as environmental risks.

6.2.6 Corrective Actions

The SHE system specifies that monthly site inspections must be undertaken. The plant manager conducts the site inspection with a different member of staff each month, and findings from the inspections are logged into a corrective action software program (Auscar). An Auscar number is then issued for that particular finding, and a person is designated to ensure that the finding is resolved. Once the finding has been resolved, this designated person notifies the business improvement officer (on-site) who then closes the Auscar number on the system.

In the monthly SHE meetings, the open items in the Auscar system are reviewed. If the action items have not been completed, they will be added on as action items for the next SHE monthly meetings.

In quarterly audits, the Viterra corporate safety advisor reviews all the Auscar items (both open and closed) from the previous audit period to verify that all identified findings and associated corrective actions have been addressed. The corporate safety advisor can reopen closed Auscar items if he or she is not satisfied that the finding has been properly resolved. Senior management receive reports from the monthly SHE meetings.

6.2.7 Training

Training is tracked using software (Vetrack) that tracks the training of all personnel on-site. Reports of Vetrack are produced monthly. The relevant training required by each job function is set by the Viterra corporate head office in Adelaide, and it is the responsibility of the business development officer on-site to ensure all training is complete and in accordance with the training requirements.

6.2.8 Site and Plant Maintenance

6.2.8.1 Housekeeping

There are daily hygiene inspections that are signed off upon completion of each designated cleaning task. Inspection checks of the facility are undertaken on a daily basis.

6.2.8.2 Equipment Maintenance

The site has a computer maintenance management system that allows for the automated tracking of plant equipment and maintenance records. Each item of equipment has been assigned a plant identification number (PID), and associated with each PID is a maintenance schedule. Work registers are generated once per week that outline the plant maintenance that needs to be undertaken during that week. The maintenance and reliability manager at the plant is responsible for ensuring that the work registers are completed and up to date.

Any unscheduled work that is required, either as a result of a plant inspection or an equipment malfunction, is also logged on the work register. It is the responsibility of the plant maintenance and reliability manager to ensure that all jobs are completed and closed on the work register. Malfunctioning equipment is repaired immediately.

The integrity of the germination vessels, kiln and silos (floors and welds) are inspected at the end of each production cycle. All vessels are certified with NSW WorkCover until 3 April 2014.

6.2.9 Emergency Response

The site has an ECP and a PIRMP. Evacuation procedures are tested twice per year and there is documentation to support this. The PIRMP is tested twice per year, however, at the time of the audit, it had not yet been tested. In accordance with Clause 361 of the Work Health and Safety (WH&S) Regulations, the NSW Fire and Rescue Service has been provided with a copy of the ECP.

Fire safety checks are conducted monthly by an external contractor.

Spill kits are provided around the site, and all personnel are trained in spill kit response as part of the Malt Chemical Awareness Training. An ammonia spill kit and respirator is provided at the refrigeration plant.

6.2.10 Communication

A sign at the front gate of the site provides a telephone number for the general public to use during plant operating hours. Additionally, Viterra operates a service centre where feedback or complaints can be lodged; the contact details are available on www.viterra.com.au including a phone number and an online notification through ‘Your Opinion Matters’. Any issue submitted via the website is sent to executive and plant management as well as the SHE department. Acknowledgement of a complaint is given within 24 hours, along with a report on the means of addressing and resolving the issue.

In accordance with Clause 98D of the Protection of the Environment Operations (POEO) (General) Regulation, elements of the PIRMP have been made available on a publically accessible website.

The site is a manifest quantity work place. A placard is displayed at the front gate, and a manifest is kept at reception. The content of the manifest is in accordance with the requirements of the WH&S Regulation.

6.2.11 Monitoring and Recording

The EMP does not specify recording of monitoring data, however it does specify that compliance with licence and other regulations be reviewed annually.

Monitoring of nitrogen oxides (NO_x) and sulphur dioxide (SO_2) emissions from the kiln burner stacks, and monitoring of noise and odour at the site boundary, have been undertaken. In accordance with conditions of the EPL and the PA, noise monitoring at the nearest sensitive receptor has also been undertaken.

There is a complaints register maintained at the front desk of the facility, and an on-line copy is also maintained. Complaints are logged in a company incident report database that triggers a corrective action, and a response is then given by the corporate SHE representative or the plant manager.

Monthly monitoring of effluent discharge to sewer is undertaken in accordance with the TWA with Sydney Water. Monitoring records are in compliance with Condition 5 of the EPL.

6.2.12 Reporting

In accordance with licence conditions the site must submit annual returns to the EPA. The annual returns must detail a statement of compliance and a monitoring and complaints summary. Annual returns for the 2012/2013 financial year were filed in May 2013.

In accordance with licence conditions and the facility's PIRMP, the site must notify the EPA and other relevant agencies if a notifiable pollution occurs. At the time of the audit, there had been no notifiable pollution incidences, and so reporting has not been required.

In accordance with Schedule 4, Condition 3 of the PA, any incidents associated with the project must be reported to the DG as soon as practicable, and within seven days of the incident, a detailed written report describing the incident must be submitted to the DG. There is no procedure requiring that the DG be notified should an incident occur. At the time of the audit, there had been no notifiable pollution incidences, and so reporting has not been required.

6.2.13 Contractor Management

All contractors at the site are required to sign in at reception, and to take a contractor management induction. This induction covers required personal protective equipment, permitting, emergency procedures, hazard and incident reporting as well as site risks. The SHE system has a procedure for contractor management.

7. EMISSIONS TO AIR

7.1 On-Site Observations

The site has nine licensed emissions to air discharge points. Often these comprise multiple discharge points. For example, the discharge point (DP1) is comprised of three separate kiln stacks.

The site has three natural gas burners that are used to warm the air for the drying process in the kiln. Emissions from the burners are through the three kiln stacks (DP1) at the western side of the burner building (near the kiln).

The other air emission discharge points are the silos (DP6 and DP7), the filter discharge fans at the malt and barley cleaning plants (DP4 and DP5 respectively), and the barley dust and malt by-product collection tanks (DP2). The collection area for the barley dust and malt by-products is also a licensed discharge point (DP3) and the prograin container grain transfer station has licensed discharge points DP8 and DP9. The major pollutant emitted from these sources (DP2-DP9) is particulate matter.

During the audit, no fugitive particulate emissions were observed, and the unloading and loading areas appeared free of dust. It is noted, however, that no loading or unloading took place during the site inspection, so observations regarding particulate dust generation during the loading and unloading could not be made.

No visible emissions were observed from the kiln dryer stacks. There was a detectable odour from the germination tanks, but it was localised to the germination vessels and could not be detected near the plant boundary.

7.2 Monitoring

In accordance with Schedule 3, Condition 5 of the PA, NOx emissions were monitored at the three kiln stacks. Monitoring was undertaken by EML Air Pty Ltd (EML) in March 2013. SO_2 emissions at the stacks were also measured. Results are summarised in a report entitled Minto Plant - Emission Testing Report, March 2013.

In accordance with Schedule 3, Condition 5 of the PA, baseline odour monitoring was also undertaken at various locations along the boundary of the site. The monitoring was undertaken prior to commencement of operations at the site, and post commissioning, during normal operations of the plant. Specific odour sources were not monitored. Odour monitoring was undertaken by RCA Australia (RCA) in November 2011 (pre commissioning), and in May 2013 (post commissioning), and results summarised in a report entitled *Baseline Monitoring –Joe White Maltings Pty Ltd, Minto, NSW*.

The site has a dust collector monitoring program that requires all dust collectors be monitored for particulate matter discharge. Monitoring and recording is undertaken on a weekly basis. Dust collector readings are in units of pressure, and are a measurement of dust build-up on the filters. A monitor reading that is out of range indicates that the filters need to be replaced.

Ambient dust monitoring has not been undertaken at the site.

7.3 Environmental Control Measures

The site utilizes low NO_x Weishaupt gas burners that have a specially designed combustion chamber with flue gas recirculation, resulting in low NO_x emissions and 100% combustion efficiency.

Discharge points DP2, DP3, DP4, DP5, DP8 and DP9 are each serviced by a filter discharge fan that is monitored weekly to ensure that operation is within the functional range. Discharge points DP6 and DP7 are serviced by silo vents that are also monitored weekly to assess functionality.

The barley receival pit is under negative pressure to minimise particulate being aerosolised during unloading. The particulates are captured by a dust collection system. The malt transfer system has Meekal chutes that reduce nuisance dust during outloading.

Environmental awareness training, which is provided to all site personnel, includes training on minimising dust emissions.

7.4 Environmental Compliance

7.4.1 NO_2 Emissions

NO_x (as nitrogen dioxide (NO_2)) emissions from the EML monitoring data were able to be assessed against the POEO (Clean Air) Regulation, and results are listed in Table 4. Results indicate that emissions are in compliance with regulatory limits.

Table 4 Air Emissions Comparison to Regulatory Limits

Pollutant	Concentration (mg/m^3)	POEO (Clean Air)[1] (mg/m^3)
NOx (as NO_2)	82,110,100[2]	350
SO_2	<5.7	N/A

Note: [1] Group 6 emissions since operation commenced after 1 September 2005.
[2] North, Centre and South Kiln burner exhaust respectively.

In May 2013, EML undertook dispersion modelling in order to predict ambient SO_2 and NO_2 cumulative ground level concentrations (GLCs) resulting from the JWM operations. Predicted GLCs were assessed against the NSW impact assessment criteria specified in the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*. Results indicated that cumulative GLCs were in compliance with the impact assessment criteria. Results are summarised in Table 5.

Table 5 Cumulative Ground Level Concentrations Comparison to Impact Assessment Criteria

Pollutant	Averaging Period	Concentration (mg/m^3)	Impact Assessment Criteria [1] (mg/m^3)
NOx (as NO_2)	1 hour	0.087	0.246
	Annual	0.016	0.062
SO_2	10 minutes	0.046	0.712
	1 hour	0.039	0.570
	24 hours	0.0073	0.228
	Annual	0.0008	0.060

Note: [1]100 percentile concentration at the nearest sensitive receptor (9 Borthwick St, Minto)

7.4.2 Odour

Baseline odour monitoring at the boundary of the site was undertaken by RCA Australia on 10 November 211, prior to JWM commencing operations, and again on 14 May 2013, during normal plant operations. Specific odour sources were not monitored. Results indicated that the odour levels at the site boundary after commencement of operations at the site were not higher than those obtained prior to construction of the facility. The odour monitoring report therefore concluded that the contribution of odours from the JWM facility is insignificant, and the likelihood of any odour complaint occurring at nearby residences as a result of the JWM operations is very unlikely.

7.4.3 Dust

Condition O3 of the EPL, and Schedule 3, Condition 3 of the PA, requires that the site takes all reasonable and feasible measures to minimise dust generated. Control technology is in place to minimize dust emissions. Filtration is used at dust discharge points, negative pressure is used during loading, and Meekal chutes are used during product dispatch.

7.4.4 Independent Air Quality Audit

Condition E1 of the EPL, and Schedule 3, Condition 5 of the PA, specifies that an independent air quality audit must be conducted, and results submitted to the EPA (formerly the Department of the Environment and Climate Change). JWM submitted the results of the NO_x and SO_2 study to the EPA on 13 May 2013. The results of the odour study were submitted to the EPA on 13 May 2013.

8. NOISE EMISSIONS

8.1 On-Site Observations

On the day of the inspection, the facility was quiet, and no significant noise was detected anywhere on-site. It was noted that there have been no noise complaints lodged since the facility began commissioning in 2012.

8.2 Environmental Control Measures

All fans and motors, including the fans at the refrigeration plant, have variable speed drives, thus limiting the speed of the motors and hence the noise generated. Acoustic enclosures have been installed on the blowers at the WWTP and in the steep tanks and by-product tanks. In addition, the high pressure pumps in the steep house area have acoustic enclosures. All motors at the site are totally enclosed fan cooled motors, which help to reduce noise emissions.

Minimising noise emissions is covered in the Environmental Awareness training, which is offered to all site personnel.

8.3 Environmental Compliance

Noise emissions from the site were monitored by RCA Acoustics on 15 and16 May 2013. Monitoring was undertaken at the site boundary to assess compliance with the Industrial Noise Policy, and at the nearest sensitive receptor (9 Borthwick Street, Minto) to assess compliance with the site EPL. Results are summarised in Table 6. Results indicated that the dominant source of noise during all monitoring periods was traffic noise. When no traffic was present, the dominant noise was from the fan at JWM and Lipa Pharmaceutical (adjacent). Results also indicated that background noise accounts for approximately 2 dB(A) of the measured L_{AEq} levels attributable to the JWM and Lipa Pharmaceutical facilities.

As can be seen in Table 6, the noise contribution from JWM is in compliance with the limits recommended in the Industrial Noise Policy over all time periods. However, the noise contribution from JWM at the nearest sensitive receptor (9 Borthwick Street, Minto) is in exceedance of its licence limits over all time periods. It is noted that RCA only reports exceedences during the evening and night time periods.

Noise levels could not be compared against the $L_{A1\ (1\ minute)}$ limit of 50 dB(A) because there is no intermittent or impulsive noise sources at the JWM site.

Table 6 Comparison of Noise Monitoring Results to Regulatory and Licence Limits

Time of Day	Location	JWM Contribution to $L_{Aeq(15\ min)}$	$L_{Aeq(15\ min)}$ Limit	Source of Limit
13:04	Boundary near WWTP	57.4	70	Industrial Noise Policy
13:23	Boundary near Entrance	62.7	70	Industrial Noise Policy
13:45	Eastern Boundary	Not measurable	70	Industrial Noise Policy
14:12	Western Boundary	69.7	70	Industrial Noise Policy
14:37	NW Corner	53.4	70	Industrial Noise Policy
11:45	9 Borthwick St	46.6	45	Site EPL
12:00	9 Borthwick St	46.6	45	Site EPL
20:37	9 Borthwick St	46.6	40	Site EPL
20:52	9 Borthwick St	46.6	40	Site EPL
00:35	9 Borthwick St	46.6	40	Site EPL
00:50	9 Borthwick St	46.6	40	Site EPL

9. WASTE WATER

9.1 On-Site Observations

A WWTP is in operation at the site. Water from the steeping process, as well as kiln condensate, is reticulated to the WWTP, where it is treated using aerobic digestion, a membrane biologic reactor and reverse osmosis. Approximately 75% of waste water generated is available for re-use.

Some of the treated water is stored in the recycled water tank and then used in the cleaning process. The germination vessels have drains that discharge to the sewer reticulation system. Thus, during cleaning, the wastewater is collected and sent back to the WWTP for treatment before being discharged off-site. Since the cleaning is conducted inside the vessels, the wastewater cannot discharge into stormwater. The remaining treated water from the WWTP is disposed to sewer under a TWA with Sydney Water.

The laboratory disposes wort (a mixture of water, hops and barley) to sewer, at less than 5 litres per day.

Sludge from the WWTP is separated from the mixed liquour of the aerobic digestor by a centrifuge. The sludge is sold to Organic Recycling Group, who uses it as a soil conditioner in accordance with a general waste exemption from the EPA.

9.2 Environmental Control Measures

Filters in the WWTP separate particulate debris, which is then collected in small skip bins and on-sold as animal feed.

9.3 Environmental Compliance

Under the TWA with Sydney Water, effluent discharge to sewer is monitored monthly. Sydney Water assess the results of the monthly testing for compliance with the TWA. There have been no non-compliances recorded.

10. WASTE MANAGEMENT

10.1 On-Site Observations

The wastes generated on-site are listed in Table 7.

Table 7 Wastes Generated On-Site

Waste	Storage	Collection	End-use/ Disposal	Comment
Biosolids	Isotainers	External Contractor	Soil conditioner	The biosludge is centrifuged to remove as much water as possible, and is then transferred in a closed system to isotainers. Isotainers have a capacity of approximately 6 tonnes, and are collected approximately six times per week.
Rootlets from Germination Vessels	Skip bins	External Contractor	Animal Feed	These are kept in covered impermeable skip bins.
General Waste	Skip Bins	External Contractor	Disposal	General waste includes general office waste, empty hypochlorite containers from the chemicals store, filter papers from the laboratory, welding rods and grinding discs from the maintenance workshop.
Office Waste	Recycling Bins	External Contractor	Recycled Paper	Office wastes are collected in their own separate bins. There is also a separate bin for secure documents.
Scrap Metal	Skip Bins, Pallets	External Contractor	Metal re-use	Much of the metal is from on-going construction at the site.
E-waste	Office Area	Disposed at Australia Post Special E-waste bins	Recycled	Comprises mostly used toners/cartridges.
Waste Oil and Grease	Maintenance workshop	External Contractor	Recycled	Collected by an external waste contractor.
Barley Dust	Skip Bins	External Contractor	Animal Feed	Particulate collected during cleaning and from dust filters.

10.2 Environmental Control Measures

Waste minimisation is covered in the Environmental Awareness Training which is offered to all site personnel.

10.3 Environmental Compliance

All waste generated on-site is managed in accordance with the waste hierarchy, with disposal only being undertaken if no higher re-use is available. All waste has been classified in accordance with the NSW EPA *Waste Classification Guidelines*, and is disposed/re-used appropriately.

11. STORMWATER MANAGEMENT

11.1 On-Site Observations

The site is completely covered by a concrete surface that appears to be in good condition. The topography of the site slopes towards the west, towards the rear of the site, and two interceptor pits that discharge off-site are located at the north-western and south-western corners of the plant. The grills of the stormwater drains appeared to be clean and free of particulate.

11.2 Environmental Control Measures

The south-western and north-western corners of the site each have an interceptor pit that traps particulate before discharge off-site. The volume of each interceptor pit is approximately 10 m^3.

Daily housekeeping ensures that very little grain particulate is left on the concrete hardstand and emptied into the stormwater system. Stormwater drains are inspected as part of the daily site inspection, and cleaning out of the drains is undertaken on an as-needed basis. An external contractor undertakes a total drain cleaning (including the interceptor pits) on a monthly basis.

The site has a stormwater management plan, and procedures to prevent stormwater contamination are provided to all site personnel in the Environmental Awareness Training.

11.2.1 Stormwater Management Plan

Condition 11 of Schedule 3 of the PA is to develop a stormwater management plan prior to construction of the project. Cardno Grogan Richards prepared the plan that was submitted to the DG.

The stormwater system is designed such that all stormwater on-site is collected in two interceptor pits in the south-western and north-western corners of the site. Internal drainage on-site has the capacity to convey stormwater from 10-year average recurrence interval (ARI) events. Internal drainage also has the capacity to convey external stormwater (stormwater entering the site from adjacent properties) generated in 100-year ARI events.

The plan also considers the quality of the stormwater expected to be discharged from the site. Stormwater flows were modelled using the MUSIC software, and assuming total suspended solids (TSS), total phosphorous (TP) and total nitrogen (TN) removal rates based on manufacturers specifications of the interceptor pits. Six minute rainfall data for a ten year period from 1996 to 2005 were used. Results of the modelling indicated that the interceptor pits met best practice removal rates for TSS but were, however, not best practice for TN and TP.

Campbelltown City Council considered that the stormwater quality was acceptable to be discharged off-site.

The plan also recommends quarterly inspections of the interceptor pits and six monthly cleaning.

11.3 Environmental Compliance

Stormwater discharge to off-site has not been monitored. Since the hardstand area of the site is kept clean, and the stormwater system is separate from the trade waste drainage system, the only contaminant that is likely to enter the stormwater drainage system is grain particulate. However, particulate is captured in the interceptor pits prior to discharge, and therefore it is considered that the likelihood of stormwater contamination is minimal

Inspection and cleaning of the interceptor pits is undertaken more frequently than is recommended in the stormwater management plan.

The Stormwater Management Plan was accepted by the Department of Planning on 27 September 2010, and was considered to have satisfied the requirement of Schedule 3, Condition 11 of the PA.

12. STORAGE

12.1 Dangerous Goods

The dangerous goods store is located north of the WWTP. It is securely caged, with MSDSs available. All dangerous goods are clearly labelled and stored in containers with secondary containment. The secondary containers empty into a sump that is then pumped back into the WWTP. These are open, and can collect rainwater during a rainfall. They are inspected daily for evidence of leaks and rainwater levels, and if there is rainwater contained within them, they are emptied into the sump. The unloading area for the dangerous goods is bunded, thus containing any spills that may occur during unloading. The size of the bunding was considered adequate.

There is an emergency shower located at the dangerous goods store that is tested weekly for functionality. The dangerous goods delivery area is bunded with concrete bunding.

All dangerous goods stored on site have been notified to WorkCover NSW. Contracts of suppliers of dangerous goods are reviewed on a yearly basis, and training on dangerous goods handling is provided in the Malt Chemical Awareness training.

It is understood from JWM that the risks associated with storing incompatible corrosive substances (acids and alkali; ammonia and hypochlorites) in the same store has been fully addressed in a risk assessment, and that the risks are fully controlled.

Table 8 lists the items contained in the dangerous goods store.

Table 8 Contents of Dangerous Goods Store

Dangerous Good	Typical Quantity (L)	Bunded (Y/N)
Sodium Hypochlorite	1,600	Y
Caustic	1,600	Y
Ammonia	1,600	Y
Hydrochloric Acid	1,600	Y
Citric Acid	1,600	Y

12.2 Chemical Storage

The chemical store is a secure, undercover area located adjacent to one of the germination tanks. All chemicals are clearly labelled, and MSDSs for the chemicals are also provided in the store. The store is bunded. The chemical store includes 200 litres of aqueous bisulfites (listed on the dangerous goods notification), and smaller containers of hypochlorite solution and Flocon.

Anhydrous ammonia, which is listed on the dangerous goods notification, is contained in an enclosed system in the refrigeration plant.

12.3 Flammable Goods

There are five flammable goods cabinets on-site: two are located at the maintenance building, two are located near the WWTP and one is located in the steep house. At the WWTP, incompatible goods are segregated into a store for corrosive materials and a store for flammable materials. Gas cylinders for use in plant maintenance are stored securely at the side of the maintenance building.

Ethanol, which is listed on the dangerous goods notification, is stored within the flammable goods cabinet in the steep house.

12.4 Environmental Compliance

All storage is in accordance with the NSW Work Cover *Code of Practice for the Storage and Handling of Dangerous Goods*, the AS/NZ *Standard for The Storage of Handling of Flammable and Combustible Liquids*, and with the NSW WH&S Regulation. Whilst there is storage of incompatible chemicals in the dangerous goods store, JWM has advised that a full risk assessment has been prepared and the risk of storing incompatible chemicals is controlled.

13. ENERGY AND WATER USAGE

13.1 Water Usage

The plant has protocols in place to ensure water usage is minimised: The site has a WWTP which treats the waste water from the production process, enabling approximately 75% of waste water to be re-used. Furthermore, all water used in the cleaning of the plant equipment utilises recycled water from the WWTP. Protocols are in place to minimise water usage. For example, the steep tanks and barley transfer tanks are inspected daily to ensure the correct water coverage, and the moisture content of the germination vessels is monitored, so that if the moisture content is greater than 43% on the final day of germination, the watering process is switched off. Protocols are also in place to fix dripping pipes and taps immediately. Water appliances in the office are all five star rated.

13.2 Energy Usage

The malt division accounts for approximately 88% of all energy usage within the Viterra group of companies. Consequently, energy usage is tracked and benchmarked across all Australian malting facilities. At the Minto facility, electricity usage is very efficient, operating with a 98% power factor. Computer control of all processing operations ensures that machinery only starts when required and is shut down as soon as possible. Furthermore, gas air heaters (Flucorrex A. G., Switzerland) that allow heat recovery through an integrated glass-tube heat exchanger are used, and these result in energy savings of up to 28%,

13.3 Water and Energy Efficiency

Condition 13 of Schedule 3 of the PA requires that JWM implements a water and energy efficiency program that is approved by the DG prior to commencing building works. The water and energy efficiency program must compare the proposed energy and water usage to other existing malting facilities, and set benchmarks for industry best practice. The measures adopted onsite to ensure that the project is water and energy efficient should also be discussed. The program should include a program to monitor and report on the efficiency of the measures implemented, and ensure the project remains energy efficient over time.

13.4 Environmental Compliance

The EPL does not have requirements on water usage.

The PA requires that JWM makes a commitment to installing a WWTP on-site, and to install and maintain a stormwater system that minimises run-off onto adjacent properties. Other commitments required by the PA are to install a rainwater tank for landscape irrigation purposes, and use of water efficient taps in the office building. All of these commitments have been implemented.

An Energy and Water Saving Action Plan was accepted by the Department of Planning on 27 September 2010, and was satisfied that it met the requirements of Schedule 3, Conditions 12 and 13 of the PA.

14. SUMMARY OF REVIEW AND AUDIT FINDINGS

A summary of compliance of site operations with licence conditions and regulations is provided in Table 9.

Table 9 Summary of Compliance Status

Aspect	Source of Compliance Condition	Compliance Status	Auditor Comment
Compliance with EPL			
Pollution of Waters	Condition L1 of EPL	Compliant	The EPL does not have any discharge limits on stormwater, and discharge to stormwater has therefore not been monitored. There are systems and procedures in place to minimise stormwater contamination.
Noise Limits	Condition L2 of EPL	Non-compliant	The JWM contribution to noise emissions was above the licence limits for day and evening periods.
Odour	Condition L3 of EPL	Compliant	Monitoring indicated that there is no significant increase in odour levels pre and post commissioning of the plant.
Competency of Operations	Condition O1 of EPL	Compliant	The site has a comprehensive set of procedures and systems in place, as well as control technology, to ensure that all site activities are carried out in a competent manner and that the risk to the environment is minimised.
Maintenance of Plant and Equipment	Condition O2 of EPL	Compliant	JWM has systems in place to ensure that plant and equipment is maintained and operated in a proper and efficient manner.
Dust	Condition O3 of EPL	Compliant	Dust controls are in place across the site, where grain is being loaded and unloaded. Environmental Awareness training covers dust minimization. Regular site cleaning minimises dust on-site.
Emergency Response	Condition O4 of EPL	Compliant	JWM has an ECP that documents procedures to follow should an emergency take place. The ECP has been provided to NSW Fire and Rescue.
Monitoring Records	Condition M1 of EPL	Compliant	All monitoring records are kept on-site for at least 4 years.
Recording of Pollution Complaints	Condition M2 of EPL	Compliant	A complaints register is maintained on-line and at the front desk. At the time of the audit, no complaints had been received.
Telephone	Condition M3 of EPL	Compliant	There is a phone number advertised at the front entrance of the site, and

Aspect	Source of Compliance Condition	Compliance Status	Auditor Comment
Complaints Line			a telephone line for complaints is posted on the company website.
Annual Return Documents	Condition R1 of EPL	Compliant	An annual return was filed with the EPA on 30 May 2013.
Notification of Environmental Harm	Condition R2 of EPL	Compliant	All relevant contact details are listed in the PIRMP for the site.
Written Report	Condition R3 of EPL	N/A	There have been no requests by the EPA for a written report of the facility.
Copy of Licence at Premises	Condition G1 of EPL	Compliant	A copy of the licence is kept on the plant manager's file.
Independent Air Quality Audit	Condition E1 of EPL	Compliant	The NO_x and SO_2 emissions report was submitted to the EPA on 13 May 2013. The odour report was submitted to the EPA on 13 May 2013.
Compliance with PA			
Odour	Schedule 3, Condition 1	Compliant	Monitoring indicated that there is no significant increase in odour levels pre and post commissioning of the plant
NOx Emissions	Schedule 3, Condition 2	Compliant	Low NO_x gas burners are used.
Dust	Schedule 3, Condition 3	Compliant	Dust controls are in place across the site, where grain is being loaded and unloaded. Environmental Awareness training covers dust minimization. Regular site cleaning minimises dust on-site.
Pre-construction Dust	Schedule 3, Condition 4	Not Applicable	
Independent Air Quality Audit	Schedule 3, Condition 5,6	Compliant	The NO_x and SO_2 emissions report was submitted to the EPA on 13 May 2013. The odour report was submitted to the EPA on 13 May 2013.

Aspect	Source of Compliance Condition	Compliance Status	Auditor Comment
Pollution of Waters	Schedule 3, Condition 7	Compliant	The EPL does not have any discharge limits on stormwater, and discharge to stormwater has therefore not been monitored. There are systems and procedures in place to minimise stormwater contamination.
Wastewater Discharge	Schedule 3, Condition 8	Compliant	All wastewater discharged from the site is discharged to sewer under a TWA from Sydney Water, 22 August 2013.
Bunding	Schedule 3, Condition 9	Compliant	All dangerous goods and chemicals are stored in appropriately bunded areas.
Erosion during Construction	Schedule 3, Condition 10	Not Applicable	
Stormwater Management	Schedule 3, Condition 11	Compliant	A Stormwater Management Plan was prepared and implemented. It was accepted by the DG on 27 September 2010.
Water and Energy Efficiency	Schedule 3, Condition 12	Compliant	In a letter to JWM on 27 September 2010, the Department of Planning stated that this condition had been satisfied.
Water and Energy Efficiency Program	Schedule 3, Condition 13	Compliant	A Water and Energy Efficiency Program was developed for the site, and was accepted by the Department of Planning on 27 September 2010.
Geotechnical	Schedule 3, Condition 14	Not Applicable	
Construction Noise	Schedule 3, Condition 15	Not Applicable	
Operational Noise Limits	Schedule 3, Condition 16	Non-Compliant	The JWM contribution to noise emissions was above the PA limits for day and evening periods.
Noise at Night-time	Schedule 3, Condition 17	Compliant	Site attendance hours are 6am to 6pm. Thus, no loading or unloading of trucks or other vehicles takes place during night time periods.
Waste	Schedule 3, Condition 23	Compliant	Wastes are classified and disposed/re-used in accordance with the Waste Classification Guidelines. Wastes are managed in accordance with

Aspect	Source of Compliance Condition	Compliance Status	Auditor Comment
			the waste hierarchy, where re-use is preferred over disposal.
Visual Amenity	Schedule 3, Conditions 24-27	Not Applicable	
Vermin Control	Schedule 3, Condition 28	Not Applicable	
Environmental Management Strategy	Schedule 4, Conditions 1,2	Non-Compliant	Although an EMS has not been prepared specifically for the DG, the elements required in the EMS are addressed in the corporate SHE system.
Incident Reporting	Schedule 4, Condition 2	Inability to be determined	There have been no incidences since commissioning. However, it is noted that there are no procedures in the ECP or the PIRMP to notify the DG if an incident takes place.
Work-As-Executed Plans	Schedule 4, Condition 4	Not Applicable	
Independent Environmental Audit	Schedule 4, Conditions 5-7	Compliant	Independent Environmental Audit undertaken September 2013.
Compliance with PA(Statement of Commitments):			
Air Quality	Appendix 2, PA	Compliant	Dust is monitored, and control technology is in place to minimise it on-site. Odour monitoring indicates that the contribution to odour off-site is insignificant. Burners use low NOx control technology. Housekeeping is excellent.
Water Management	Appendix 2, PA	Compliant	Recycled water from the WWTP is used in the cleaning process instead of mains water. The site has a stormwater management plan in place that has protocols to minimise stormwater contamination. Protocols are in place to minimise water usage. Rainwater is captured from office building and used for irrigation of plants. The water appliances in the office all have five star rating.
Noise Management	Appendix 2, PA	Non-Compliant	Equipment is maintained to limit noise emissions, and repair of equipment is undertaken immediately. JWM commissioned a noise assessment in

Aspect	Source of Compliance Condition	Compliance Status	Auditor Comment
			May 2013. No mitigation measures have been adopted. The JWM contribution is not in exceedance of the recommended level in the NSW Industrial Noise Policy.
Water and Energy Efficiency	Appendix 2, PA	Compliant	A Water and Energy Efficiency Program was developed for the site, and was accepted by the Department of Planning on 27 September 2010.
Greenhouse Gases	Appendix 2, PA	Compliant	Gas burners are highly efficient, and ammonia chillers are used in the refrigeration process. Heat is captured through an integrated glass tube heat exchanger.
Waste	Appendix 2, PA	Compliant	The WWTP is used to produce potable standard water that is used in the cleaning process. General and office waste is segregated and disposed to the correct bins. Wastes are classified and disposed/re-used appropriately. Sludge from the WWTP is sold to an agricultural company who use it as a soil conditioner under a general waste exemption.
Environmental Monitoring	Appendix 2, PA	Compliant	The site EMP specifies undertaking environmental monitoring in order to assess compliance with the EPL.
Compliance with Regulatory Requirements			
NO_2 Emissions	POEO (Clean Air) Regulation	Compliant	NO_2 emissions are well below the limits set out in the POEO (Clean Air) Regulation for a Class 6 facility.
NO_2 Ground Level Concentrations	NSW EPA Impact Assessment Criteria	Compliant	Cumulative NO_2 ground level concentrations are well below the impact assessment criteria for all averaging period.
SO_2 Ground Level Concentrations	NSW EPA Impact Assessment Criteria	Compliant	Cumulative SO_2 ground level concentrations are well below the impact assessment criteria for all averaging periods.
Noise Emissions	NSW Industrial Noise Policy	Compliant	Noise emissions at the boundary of the site are below the levels recommended in the Industrial Noise Policy.

Aspect	Source of Compliance Condition	Compliance Status	Auditor Comment
Pollution Incident Notification	Clause 98D, POEO Regulation2009	Compliant	The PIRMP is publically available on the Viterra website.

15. CONCLUSIONS AND RECOMMENDATIONS

15.1 Conclusions

The environmental audit has considered all aspects of impacts to the environment from the JWM facility, as well as management systems and control technologies that are in place to minimise these risks. The audit has found that the facility is in compliance with all EPL, PA and regulatory conditions, except for the EPL and PA conditions regarding noise emissions, and the PA condition regarding preparation of an EMS. Although JWM did not prepare an EMS for the facility, all elements required in the EMS are addressed in the corporate SHE management system. Preparing a stand-alone EMS is therefore not considered necessary.

15.2 Recommendations

The following recommendations for measures and actions to achieve compliance with the EPL, PA and statutory requirements and improve the environmental performance of the site are made:

- In order to ensure compliance with Schedule 4, Condition 3 of the PA, include in the incident reporting protocol a requirement to notify the DG as soon as practicable, and within seven days of the incident provide the DG a detailed written report of the incident, including subsequent actions taken in relation to the incident;
- The measured ambient noise levels at the nearest sensitive receptor should be further investigated in order to determine whether there is a need to install noise control measures for the fans at the site. This may involve a discussion with the EPA.

16. REFERENCES

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