NCIA 2018 Independent Environmental Audit

National Ceramics Industry Australia

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NCIA 2018 Independent Environmental Audit

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Document history and status

Revision	Date	Description	By	Review	Approved
01	08/01/19	Draft for internal review	C Scholefield, K Collings, M Davies, B Ison and L Spencer	A Bowden	K Collings
02	10/01/18	Draft for NCIA accuracy review	K Collings	A Bowden	K Collings
03	31/01/19	Final Draft	K Collings and Luke Spencer	A Bowden	K Collings

Certification

Independent Audit Declaration Form

Project Name	National Ceramic Industries Australia Tile Manufacturing Facility Expansion Project
Consent Number	09_0006
Description of Project	National Ceramic Industries Australia Tile Manufacturing Facility
Project Address	175 Racecourse Road, Rutherford NSW 2320
Proponent	National Ceramic Industries Australia
Title of Audit	Independent Environmental Audit of NCIA 2018
Date	31/01/2019

I certify that I have undertaken the independent audit and prepared the contents of the attached independent audit report and to the best of my knowledge:

- the audit has been undertaken in accordance with relevant condition(s) of consent and the Independent Audit Post Approval Requirements (Department 2018);
- the findings of the audit are reported truthfully, accurately and completely;
- I have exercised due diligence and professional judgement in conducting the audit;
- I have acted professionally, objectively and in an unbiased manner;
- I am not related to any proponent, owner or operator of the project neither as an employer, business partner, employee, or by sharing a common employer, having a contractual arrangement outside the audit, or by relationship as spouse, partner, sibling, parent, or child;
- I do not have any pecuniary interest in the audited project, including where there is a reasonable likelihood or expectation of financial gain or loss to me or spouse, partner, sibling, parent, or child;
- neither I nor my employer have provided consultancy services for the audited project that were subject to this audit except as otherwise declared to the Department prior to the audit; and
- I have not accepted, nor intend to accept any inducement, commission, gift or any other benefit (apart from payment for auditing services) from any proponent, owner or operator of the project, their employees or any interested party. I have not knowingly allowed, nor intend to allow my colleagues to do so.

Note.

a) *Under section 10.6 of the Environmental Planning and Assessment Act 1979 a person must not include false or misleading information (or provide information for inclusion in) in a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is false or misleading in a material respect. The proponent of an approved project must not fail to include information in (or provide information for inclusion in) a report of monitoring data or an audit report produced to the Minister in connection with an audit if the person knows that the information is materially relevant to the monitoring or audit. The maximum penalty is, in the case of a corporation, $1 million and for an individual, $250,000; and*

b) *The Crimes Act 1900 contains other offences relating to false and misleading information: section 307B (giving false or misleading information – maximum penalty 2 years imprisonment or 200 penalty units, or both).*

Name of Auditor	Kim Collings
Signature	
Qualification	Environmental Compliance Auditor (ISO14001:2015) through Exemplar Global Certificate # 13995
Company	Jacobs Group (Australia) Pty Ltd
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Contents

Glossary

Term	Meaning
AEMR	Annual Environmental Management Report
C	Condition
DP&E	NSW Department of Planning and Environment
EA	Environmental Assessment
EPA	Environment Protection Authority
EPL	Environment Protection Licence
IEA	Independent Environmental Audit
NCIA	National Ceramics Industries Australia
OEH	NSW Office of Environment and Heritage
OEMP	Operational Environmental Management Plan
PA	Project Approval
POEO Act	Protection of the Environment Operations Act 1997
PIRMP	Pollution Incident Response Management Plan
SoC	Statement of Commitment

1. Introduction

1.1 Background

National Ceramics Industry Australia Pty Ltd (NCIA) have requested Kim Collings from Jacobs Group (Australia) Pty Ltd (Jacobs) provide an Independent Environmental Audit (IEA) of the NCIA ceramic tile factory at Rutherford, NSW. The tile factory consists of a 6.4 million m^2 per annum ceramic tile manufacturing operation. The facility was commissioned in 2004.

The audit is of the National Ceramic Industries Australia Tile Manufacturing Facility Extension Project Approval 09_0006 that was approved in January 2012 and modified in 2014. The application was supported by an Environmental Impact Statement titled National Ceramic Industries Australia Extension – Environmental Assessment, dated 5 July 2010 (AECOM), including the associated response to submissions dated 2 November 2010. An IEA was completed in 2015 by Graham A Brown & Associates.

1.2 Audit team

This IEA was conducted by the following Jacobs personnel:

- Kim Collings – Lead Auditor. Kim has over 20 years of experience in a variety of environmental disciplines. She is an accredited Environmental Auditor with Exemplar Global (No. 13995) and is a DP&E approved auditor. Kim has been the lead auditor and audit reviewer for numerous compliance, system and due diligence audits in the mining, power, transmission, food, wine, road and industrial sectors. In her capacity as an auditor she has been responsible for developing audit protocols, co-ordinating audit teams, training auditors and reporting audit results to clients via presentations and written reports.
- Matt Davies – Air Quality specialist. Matt is a Technical Director at Jacobs and Practice Leader – Air Quality and Energy /Greenhouse Gas Emissions with over 23 years' experience in air quality and GHG assessment including monitoring, modelling and emissions abatement. He has undertaken many air quality, greenhouse and noise impact assessments for environmental studies associated with industry. Matt is an experienced Expert Witness and is currently appointed by the CER as an NGER Auditor Inspector.
- Ben Ison – Noise and Vibration specialist. Ben is an Environmental Scientist within the Acoustics Group at Jacob's Newcastle Office with 17 years' experience as an environmental professional and 12 years' experience in the assessment of environmental noise and vibration issues. He has broad experience in the establishment and management of complex monitoring programs and. Ben has experience in the assessment and management of rail, construction, water and mining related noise issues.
- Aaron Bowden – Project Direction and Audit Peer Review. Aaron is an expert advisor with over 16 years' experience in strategic land use planning, development contributions planning, due diligence, site selection/options assessment, design development, business case development, and approvals management.

1.3 Audit objectives

The IEA objectives for the site are defined to satisfy the requirements of the legislation and the statutory instruments relevant to the tile factory. The documents and requirements include:

- Project Approval – 09_0006 that was approved in 2012, modified to Mod 2 in 2014.
- Documents required by the conditions in the consents including environmental management plans etc.
- Reports, particularly any annual reviews, noise reports, air quality reports and other relevant reports completed during the audit period.
- National Ceramic Industries Australia Extension – Environmental Assessment, dated 5 July 2010 and associated response to submissions.
- Monitoring results and trends.

- Community complaints and trends.
- Any regulatory actions and reported environmental incidents during the audit period.
- Any requirements identified in feedback from the consultation required for the audit.

This IEA also addresses the specific requirements of PA 09_0006 for the Expansion of Tile factory, Schedule 4, Conditions 61, 62 and 63:

INDEPENDENT ENVIRONMENTAL AUDIT

61. Every 3 years from the date of this approval, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:

a) be conducted by a suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Secretary;

b) be undertaken in consultation with the OEH and Council;

c) include an assessment of the noise and air quality performance of the project;

d) assess the environmental performance of the project and undertake any works necessary to determine whether it is complying with the relevant standards, performance measures, and statutory requirements;

e) review the adequacy of any strategy/plan/program required under this approval; and, if necessary,

f) recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.

62. Within 6 weeks of completing this audit, or as otherwise directed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the report.

63. Within 3 months of submitting an audit report to the Director-General, the Proponent shall review and if necessary revise the strategy/plans/programs and undertake additional mitigation measures as required under this approval to the satisfaction of the Director-General.

1.4 Audit scope

The following audit scope was prepared to satisfy the requirements of PA 09_0006 as modified.

1.4.1 Site

The site is located at Rutherford, a suburb on the western side of Maitland, NSW. The audit extended beyond the nominated site boundaries to include monitoring locations.

1.4.2 Organisation

For the purposes of the audit, the organisation audited was the tile factory, specifically the organisational units and personnel within NCIA who have management functions or responsibility for the operation/maintenance of the plant and operations at the facility.

1.4.3 Activities

The audit focused specifically on the documents detailed in the audit objectives (refer to Section 1.3) and the environmental management of the facility, operational activities in general, the interaction of suppliers with the site (where appropriate) and interaction with the sites' neighbours and the community at large including the agencies/regulators.

Specific audit tasks included the development of an audit protocol, site inspections, personnel interviews and document review, as well as preparation of this audit report. These tasks have been described in more detail in Section 2 below.

1.4.4 Audit criteria

The criteria for assessment of environmental compliance at the site include:

- Development approval, PA 09_0006 dated 19 January 2012.
- Appendix 1 of the project approval:
  - The Environmental Assessment (EA) Statement of Commitments (SoC).
- PA 09_0006 Mod 2 dated 17 December 2014.
- Other relevant approvals.
- Environment Protection Licence (EPL) 11956.
- All other regulatory reporting required by the consent as modified
- The status of implementation of previous Independent Audit findings, recommendations and actions.

Other criteria may be identified as relevant in the desktop review that will be conducted prior to the site visit portion of the audit.

1.5 Audit Period

The audit period is from the time of the previous audit in 2015 to the day of site visit for this audit in 2018 (10 December 2018).

2. Audit Methodology

2.1 Selection and endorsement of audit team

The audit team were endorsed by the Department of Planning and Environment (DP&E) on 19 November 2018. A copy of the endorsement is provided in Appendix B.

2.2 Independent audit scope development

The scope of the IEA was developed primarily based on the Conditions of Approval PA 09_0006.

2.3 Compliance evaluation

The findings of this IEA are based on verifiable evidence collected from the following sources:

- A background review of all available relevant documentation.
- Monitoring data collected in accordance with regulatory requirements.
- Information provided during the site visit on 10 December 2018.

These documents provided evidence used to verify compliance with each requirement, as documented in the Independent Audit Table (Appendix A). The evaluation of post approval documents (namely the Operational Environmental Management Plan (OEMP)) considered whether the plan had been developed in accordance with the conditions of consent and the EPL, and whether the content was adequate. Furthermore, the implementation of the OEMP was evaluated. The adequacy of the OEMP was determined on the basis of whether there are any non-compliances resulting from implementation of the plan, and whether there are any opportunities for improvement.

2.4 Site inspection

A one-day site visit was carried out by the lead auditor to inspect site documentation, interview personnel and review the physical aspects of the site environmental management and implementation of the documents reviewed. The site visit was conducted on 10 December 2018. There was no restricted access that limited the ability to adequately carry out the audit as scoped.

2.5 Site interviews

Whilst on site for the inspection, the Lead Auditor conducted interviews with NCIA staff. Interviewees included:

- Managing Director.
- Administration and Finance Manager.
- Factory Manager.

2.6 Consultation

The lead auditor, in consultation with NCIA, corresponded with the appropriate stakeholders as required by the NSW Department of Planning and Environment Independent Audit Post Approval Requirements, June 2018:

- Department of Planning and Environment.
- Office of Environment and Heritage.
- Environment Protection Authority.
- Maitland City Council.
- Hunter Water.

Consultation consisted of an email followed by a phone call where there was no response to the initial correspondence. Section 3.9 provides the consultation outcomes.

2.7 Compliance status descriptors

The compliance status of each compliance requirement in the audit table (refer to Appendix A) was determined using the relevant descriptors from the Independent Audit Post Approval Requirements (DP&E 2018) as presented in Table 2.1.

Table 2.1: Compliance status descriptors

Status	Description
Compliant	The auditor has collected sufficient verifiable evidence to demonstrate that all elements of the requirement have been complied with within the scope of the audit.
Not compliant	The auditor has determined that one or more specific elements of the conditions or requirements have not been complied with within the scope of the audit.
Not triggered	A requirement has an activation or timing trigger that has not been met at the time when the audit is undertaken, therefore an assessment of compliance is not relevant.

In addition to the compliance status descriptors, observations and notes are included, including identifying any opportunities for improvement, in relation to any compliance requirement or any other aspect of the development.

3. Audit Findings

3.1 Approval and document list

The following documents were reviewed for compliance in this IEA. There were other site documents reviewed by the audit team as evidence or supporting information that are not listed here.

Approval documents audited:

- Project Approval (PA 09_0006), National Ceramic Industries Australia Tile Manufacturing Facility Expansion Project dated 19 January 2010 and as modified 17 December 2014.
- EPL 11956.

Documents that were developed to support the approvals that were reviewed:

- Annual Environmental Management Report 2016.
- Annual Environmental Management Report 2017.
- Annual Environmental Management Report 2018.
- Operation Environmental Management Plan (Rev 5, 2018).
- Ambient monitoring reports December 2017 to November 2018.
- 2015 Independent Environmental Audit Recommendations (Brown 2015).
- The National Ceramic Industries Australia Expansion – Environmental Assessment, AECOM 2010.

3.2 Compliance performance

A total of Project Approval conditions, EIS commitments and 2015 IER recommendations were assessed as part of this audit. 13 issues were identified as Not compliant, 88 as Compliant and 58 as Not triggered.

3.3 Summary of agency notices, orders, penalty notices or prosecutions

NCIA received a Show Cause Notice from DP&E (correspondence dated 3 February 2017) about one exceedance of the 24-hour PM_{10} criterion and one exceedance of the fluoride load limit as reported in the 2015-2016 AEMR. DP&E indicated that a number of breaches of the Project Approval may have occurred as a result of these exceedances and failure to report these as incidents.

NCIA provided a response to DP&E (AECOM, dated 17 February 2017) which outlined why these exceedances were not considered to have caused or to be likely to cause material harm to the environment and were therefore not considered to be reportable incidents. As NCIA did not consider that these exceedances caused or would cause material harm to the environment, they were not reported as incidents in accordance with Schedule 4 Condition 58 of the Project Approval. The exceedances were duly disclosed and reported in the AEMR for that reporting period (and to the NSW EPA through the Annual Return for that period).

DP&E accepted these representations and no further enforcement actions were taken. No breach of the conditions of consent was recorded.

As agreed through further discussions with DP&E, NCIA now reports all exceedances of performance criteria to the DP&E compliance team upon receipt of verified laboratory analysis.

NCIA received a Show Cause Notice via email on 8 June 2018 from the NSW EPA regarding alleged breaches of the *Protection of the Environment Operations Act 1997* (POEO Act). The Show Cause Notice identified three matters that required a response from NCIA:

1) *The EPA is of the opinion that NCIA has allegedly breached Section 66(6) of the POEO Act for not publishing monitoring data on its website, as well as potentially breaching Section 66(4) for providing*

potential false and/or misleading information in the Annual Return, when indicating in the 2016-2017 Annual Return that monitoring data was published online as required.

2) *NCIA has indicated that it has not complied with condition L2.1 of the licence by exceeding the Fluoride load limit of 1850kg by 561kg at EPA Point 15. The EPA is of the opinion that NCIA has allegedly breached Section 64(1) of the POEO Act which states:*

3) *If any condition of a licence is contravened by any person, each holder of the licence is guilty of an offence.*

4) *NCIA has indicated that is has not complied with condition L3.1/L3.4 of the licence by exceeding the Hydrogen Fluoride concentration limit of 5 mg/m3 by 4.7mg/m3 at EPA Point 15. The EPA is of the opinion that NCIA has allegedly breached Section 64(1) of the POEO Act. NCIA responded on 28 June 2018. The response outlined NCIA's prior knowledge of the issues and awareness of their reporting criteria and addressed each of the three matters. Improvements and management measures to prevent further issues occurring were also identified.*

On the 2 August 2018, NCIA received a Penalty Notice Advice from the EPA in regard to the Show Cause notice. The EPA issued NCIA with two Penalty Notices and two Official Cautions for allegedly failing to comply with various provisions of the POEO Act and the conditions of the EPL, which is an alleged breach of Section 64(1) of the POEO Act.

3.4 Non-compliances

Each non-compliance was caused by an action, omission or event. These constitute the issues that the site needs to address to achieve compliance. For this reason, the issues are extracted from the Not compliant items detailed in Appendix A, so they will be more readily addressed by NCIA.

3.5 Previous audit recommendations

The previous IEA was carried out in 2015 by Graham A Brown and Associates. A total of 138 compliance requirements were audited, of which NCIA achieved an overall compliance rate of 72%. The audit identified 19 non-compliances and five administrative non-compliances. The auditors made recommendations against each non-compliance, as well as recommendations where compliance was achieved but an improvement in performance could be made.

These recommendations have been reviewed as part of this IEA, to determine whether they had now been completed. An assessment of compliance for all recommendations in the 2015 IEA (Graham A Brown and Associates) is provided in the Independent Audit Table in Appendix A. In total, 18 recommendations were made in the previous IEA, of which 12 were completed, 5 not completed and 1 not triggered. Outstanding actions from the previous audit are provided in Table 3.1.

Table 3.1: Recommendations from the 2015 Independent Environmental Audit

Recommendation	Notes from this audit	Completed
2.14.1. NCIA must pay to Council an annual contribution of 4.1 cents per kilometre per tonne of product (adjusted for inflation) trucked from the site along Racecourse Road to its intersection with the New England Highway from the date of DA 09_0006 (19 January 2012).	NCIA have paid annual contributions to council during the audit period. Refer to Conditions of Approval 14 in Appendix A for details. Sighted correspondence from NCIA to Council, invoice from Council and bank record of payment.	Completed
3.15.1. It is recommended that future AEMRs include the necessary inferred compliance calculations (that is, comparison between in stack concentrations and modelled in-stack emissions rates in 2010 EIS).	A comparison of the in-stack concentrations and modelled in-stack emissions rates in 2010 EIS is provided in the AEMRs: • 2016 AEMR, Table 14	Completed

Recommendation	Notes from this audit	Completed
	• 2017 AEMR, Table 14 • 2018 AEMR, Table 5-2.	
3.16.1. (Repeat of L2.2.1) Future AEMRs should include verification that the actual load of an assessable pollutant has been calculated in accordance with the relevant load calculation protocol, which should be referenced. Table 13 in the AEMRs should be changed to show the correct Project Approval Limits for sulfur oxides and nitrogen oxides.	Relevant load calculation protocols applicable are cited in Section 5.4 of the 2016, 2017 and 2018 AEMRs, although the approach applied (i.e. source monitoring - periodic monitoring) is not explicitly stated. It is recommended that future AEMRs include reference to the specific load calculation methodology (including input data) from within the Load Calculation Protocol for ceramics production that has been applied.	Completed
3.17.1. It is recommended that when the OEMP is replaced by an Environmental Management Strategy (prior to the commencement of any construction works) as required by Schedule 4 Condition 57 of this Approval, wording in a “Transport Code of Conduct” or similar section includes a requirement for all loads of bulk granular material delivered to the site to be covered in accordance with the “Load Restraint Guide”.	The OEMP has not yet been superseded by an Environmental Management Strategy as no additional stages of the project have commenced during this audit period. To be completed prior to the commencement of any further stage construction works.	Not triggered
3.18.1 The terminology in the NCIA Emissions Testing Reports in future should refer to EPL 3, not EPL 2, and the second listing of EPL 10 in Table 4 should reference EPL 12 Spray Dryer (SD1).	Table 18 of AEMR 2016 advises that these changes were made in the 2016/2017 emissions testing report.	Completed
3.28.1 NCIA should attempt to locate the Stage 1 Noise Validation Report.	The NCIA Managing Director indicated that they have tried to locate the Stage 1 Noise Validation Report following the 2015 IER. This report was unable to be located.	Not completed
3.32.1 NCIA should either review the construction contract for the facility to assess if lighting was required to be installed in accordance with AS 4282:1997; or if this information is not available or is inconclusive, commission a qualified lighting expert to undertake a survey or audit of the outdoor lighting against AS 4282:1997 to verify its compliance.	No documentation could be provided to verify that lighting complies with the latest Australian Standards. Lighting on site appears to be mounted and directed to not cause a nuisance off site. This was not confirmed during the site visit. The Managing Director indicated that no complaints about lighting have been received during the audit period.	Not completed
3.37.1 NCIA should prepare a written instruction that is issued to each contract driver that no vehicles associated with the project are parked on the public road system at any stage, or that vehicles queue on the public road network. This could be done through the Transport Code of Conduct in Section 9 of the OEMP which should be	Section 8 of the OEMP (Transport Code of Conduct) now includes a statement that ‘No vehicles associated with the operation of the facility are to park or queue on the public road network (Rutherford Road and Kyle Avenue)	Completed

Recommendation	Notes from this audit	Completed
revised to reflect current site requirements and be provided to all employees, contractors and contract drivers.		
3.37.2 A traffic risk assessment should be conducted on site to determine if, and if so where, direction line marking and signage should be provided on site to direct heavy vehicles, staff and visitors to the relevant parking areas, loading docks and exits to ensure safe traffic flow.	Signage, maps, mirrors, and line marking installed following the 2015 IER. Traffic management as part of the OEMP updated to reflect changes. SafeWork reviewed in July 2018, sighted email from SafeWork dated 11/7/18.	Completed
3.38.1 To comply with this condition, NCIA must provide markings in accordance with Australian Standard AS2890.1:2004.	Designated car parking spaces were marked out after the 2015 IER. This was sighted during the site visit. Unable to be verified if they are marked in accordance with AS2890.1:2004.	Not completed
3.39.1 To comply with this condition, NCIA must provide markings in accordance with Australian Standard AS1428.1:2001.	One disabled parking space sighted during the site visit including a ramp into the office. Unable to be verified if they are marked in accordance with AS1428.1.	Not completed
3.52.1 NCIA should ensure that waste tiles are stored within only the designated concrete bunker and that there are procedures in place, including daily inspections, to determine when a contractor should be required to remove waste tiles. Daily inspections should be documented.	Waste tiles are located within and next to the designated waste tile area. Waste tiles are periodically removed from the site by a contractor. The Managing Director has discussed waste tiles and storage areas with the DP&E and EPA. Sighted email and memorandum dated 24/4/18 to DP&E seeking confirmation that the proposed crushing plant would comply with the current approval. NCIA continues to work through options to turn this waste into a saleable or reusable product on site. The NCIA Managing Director indicated that on 24/1/2019 (after a 5 week production shutdown) there is very little waste tile left on site.	Completed
3.55.1 The Emergency Plan should be revised if necessary to incorporate the use of any spill prevention measures established for the diesel tank.	The Emergency Plan includes prevention / protection measures relating to diesel dispensing and loading.	Completed
4.58.1 It is recommended that the Draft Emergency Plan be finalised and its requirements (e.g. for training) be implemented. The Emergency Plan should reference the PIRMP which could be included as an Appendix. The Notifications in the Emergency Plan should include, or make reference to, Table 2 in the PIRMP.	The Emergency Plan has been reviewed and finalised (23 February 2018). A gas leak simulation was carried out on 21/9/18. Email sighted 21/9/18 outlining type of test and areas for improvement. Updated emergency response plan on display. Records of training retained in file sharing folder. A cross reference to the appropriate section in the PIRMP has been included in relation to notifications.	Completed

Recommendation	Notes from this audit	Completed
4.59.1 See 4.60.1.	-	Completed
4.60.1 NCIA regarded a waste storage incident that led to litigation and mediation in 2012 with the adjacent property owner, McCloy Group, as a legal issue and therefore did not report it as an incident or a complaint and did not reference it in the AEMR for 2012. NCIA and its consultants should ensure that all incidents and complaints that relate to actual or potential pollution are recorded as such, reported to the appropriate authorities, and included in the AEMR.	Table 3-1 of the 2018 AEMR indicates that no complaints have been recorded or reported to the authorities for this audit period.	Completed
4.64.1 It is recommended that as a matter of urgency NCIA provide copies on their website of every approved strategy, plan or program required under this approval (or any subsequent revision of these strategies, plans or programs), or the audits or annual reports required under this approval. This should cover the period of this approval, that is, from 19 January 2012 to the present. This information should be kept up to date.	The OEMP, AEMRs, 2015 IER, annual returns, monitoring results, EPL and Pollution Incident Management Response Plan are provided on the NCIA website.	Completed
4.64.2 A procedure should be prepared and implemented to ensure that this condition is complied with in the future.	Table 4 in Section 4.3 of the OEMP outlines roles and responsibilities including that the Managing Directors responsibility for providing relevant information to DP&E and making it publicly available. NCIA delegates the provision of relevant documents/data to the relevant agencies to AECOM (refer to Condition of Approval 64 above). This information is also available on their website.	Completed

3.6 Environmental Management Plan and post approval documents

The following plans are included in PA 09_0006:

Plans required under the Project Approval (09_0006)	Within the OEMP?
Air Quality Management Plan (AQMP)	Yes, included in Section 5 of the OEMP.
Energy Savings Action Plan (ESAP)	No, however Table 4 of the OEMP states that, "*Preparation of an ESAP was initiated; however following consultation with the Department, involvement with the Energy Efficiency Opportunities program was recommended and pursued as an appropriate alternative. As agreed with the Department, NCIA opted out of the program due to the low level of emissions from the facility. The EEO program is now closed*."
Noise Management Plan (NMP)	No, however the OEMP includes noise management and monitoring which includes management measures. Section 3.2 of the OEMP outlines that a NMP will be prepared as part of the Environmental Management Strategy prior to commencement of any construction works for the next stage of the project.
Landscape Management Plan (LMP)	Yes, included in Section 11 of the OEMP.
Traffic Management Plan (TMP)	No, however the OEMP includes a transport code of conduct in Section 8. Section 3.2 of the OEMP outlines that a TMP will be prepared as part of the Environmental Management Strategy prior to commencement of any construction works for the next stage of the project.
Erosion and Sediment Control Plan	Yes, included in Appendix F of the OEMP.
Stormwater Management Plan	No, Section 6 Water Management Plan of the OEMP includes a stormwater management section. Section 3.2 of the OEMP outlines that a Stormwater Management Plan will be prepared as part of the Environmental Management Strategy prior to commencement of any construction works for the next stage of the project.
Aboriginal Cultural Education Program	No, however Table 4 of the OEMP indicates that this program will be developed prior to commencement of construction of the new stages.
Environmental Management Strategy	An Environmental Management Strategy will supersede the OEMP. Section 3.2 indicates that this strategy will be prepared prior to construction of any construction works associated with the next stage of the project.
Construction Environmental Management Plan (CEMP)	No, a CEMP will be prepared prior to construction of any construction works associated with the next stage of the project.

3.7 Environmental Management System

There is no certified Environmental Management System in place for the facility. Environmental (air and noise) monitoring is carried out as per the requirements of the Project Approval, as described elsewhere within this report.

During the audit no opportunities for continual improvement in relation to environmental management were identified (as defined by ISO14001:2015).

3.8 Environmental performance

NCIA operations are generally compliant with the Project Approval. Where compliance has not been achieved it has been noted as Not compliant in Section 4.1 and Appendix A.

The AEMRs state that there were no reportable incidents during the audit period. In 2015/16, exceedances of EPL and Project Approval criteria were not identified until preparation of the Annual Return and were therefore not reported to DP&E at the time of exceedance (refer to Section 3.4).

The following provides a summary on the environmental performance for air quality, noise, water and waste.

3.8.1 Air quality

Ambient air quality

Ambient air quality monitoring is carried out monthly. Measurements were collected for particulate matter and fluoride and presented in the monthly ambient monitoring reports and 2016, 2017 and 2018 AEMRs. The following provides a summary of the environmental performance for the site:

- 2016 AEMR: One non-attributable exceedance of the PM_{10} 24-hour averaged criteria (50 micrograms per cubic metre) was measured at the northwest boundary monitoring station. Section 6.1 of the AEMR advises that a subsequent review found that NCIA's operations was not the main contributing factor for this exceedance.

  Annual PM_{10} concentrations were measured below the 30 micrograms per cubic metre criterion. No TSP results were presented for comparison with the 90 micrograms per cubic metre annual criterion, although it is noted that PM_{10} typically comprises of around 50% of TSP (i.e. higher indicative annually averaged TSP concentration of 44 micrograms per cubic metre), below the 90 micrograms per cubic metre criterion.
- 2017 AEMR: Three non-attributable exceedances of the PM_{10} 24-hour averaged criteria (50 micrograms per cubic metre) were measured across the two on-site boundary monitoring stations. Section 6.1 of the AEMR advises that DP&E were advised of each exceedance upon receipt of laboratory results, and that a subsequent review found that NCIA's operations was not the main contributing factor in each instance.

  Annual PM_{10} concentrations were measured below the 30 micrograms per cubic metre criterion. No TSP results were presented for comparison with the 90 micrograms per cubic metre criterion annual criterion, although it is noted that PM_{10} typically comprises of around 50% of TSP (i.e. higher indicative annually averaged TSP concentration of 54 micrograms per cubic metre), below the 90 micrograms per cubic metre criterion.
- 2018 AEMR: Eight exceedances of the PM_{10} 24-hour averaged criteria were recorded at the northwest monitoring station, as well as a further four at the southeast monitoring location. Section 6.1 of the AEMR advises that DP&E were advised of each exceedance upon receipt of laboratory results, and that a subsequent review found that NCIA's operations was not the main contributing factor in each instance.

  The annually averaged PM_{10} criterion was also measured to be exceeded (31.4 vs 30.0 micrograms per cubic metre) at the northwest ambient air quality monitoring location.

  No TSP results were presented for comparison with the 90 micrograms per cubic metre criterion annual criterion, although it is noted that PM_{10} typically comprises of around 50% of TSP (i.e. higher indicative annually averaged TSP concentration of 62 micrograms per cubic metre), below the 90 micrograms per cubic metre criterion.
- Ambient fluoride monitoring recorded highest 24-hour concentrations of 2.7, 2.2 and 3.2 micrograms per cubic metre reported in the 2016, 2017 and 2018 AEMRs respectively. The value measured in 2018 was above the 2.9 micrograms per cubic metre Project Limit.
- Highest 7-day fluoride concentrations of 1.1, 0.8 and 0.7 micrograms per cubic metre were measured; less than but generally consistent with the highest level (1.3 micrograms per cubic metre) predicted in the EIS.

Stack emission testing

Table 14 from the 2016 AEMR, Table 14 from the 2017 AEMR and Table 5-2 from the 2018 AEMR note that pollutant concentrations from stack measurements of various sources at the site vary from the values applied in modelling conducted as part of the EIS. In particular, particulate matter, total fluoride, sulfuric acid mist and cadmium concentrations from Kilns 1 and 2 were regularly measured at concentrations materially higher that the values that were adopted in the modelling undertaken for the EIS.

Load limits

Condition 16 of the Project Approval imposes annual pollutant load limits at the facility. The following provides a summary of the results against these limits:

- 2016 AEMR: Maximum allowable load limits (kilograms per year) for fine particulate, coarse particulates, fluoride, sulfur oxides (as sulphuric acid mist and sulfur trioxide [as SO_3]), and nitrogen oxides were complied with except for fluoride, where a value of 2,239 kilograms was reported above the annual limit of 1,850 kilograms.
- 2017 AEMR: Maximum allowable load limits (kilograms per year) for fine particulate, coarse particulates, fluoride, sulfur oxides (as sulphuric acid mist and sulfur trioxide [as SO_3]), and nitrogen oxides were complied with except for fluoride, where a value of 2,411 kilograms was reported above the annual limit of 1,850 kilograms.
- 2018 AEMR: Maximum allowable load limits (kilograms per year) for fine particulate, coarse particulates, fluoride, sulfur oxides (as sulphuric acid mist and sulfur trioxide [as SO_3]), and nitrogen oxides were complied with except for fluoride, where a value of 4,146 kilograms was reported above the annual limit of 1,850 kilograms.

3.8.2 Noise

$L_{AEq15\ minute}$ noise levels were predicted to be less than 35 dB(A) at the nearest sensitive receiver locations to the south and east of the facility. Noise monitoring results collected over the period of the audit presented in AEMRs 2016, 2017 and 2018 reported maximum contributions from NCIA at these receivers of 33, 32 and 32 dB(A) respectively. The following provides a summary of the noise monitoring results as described in the AEMRs for the audit period:

- 2016 AEMR covering the period from 1 August 2015 to 31 July 2016 describes noise monitoring completed in May 2016 to address this requirement. Though total $L_{Aeq\ (15\ minute)}$ noise levels at Kenvil Close and Wollombi Road were measured above the specified noise limits, the records indicate that NCIA's operations were below 35 dB(A). No exceedances of the L_{Amax} 45 dB(A) sleep disturbance criteria were measured. The measurement methods noted are consistent with the NPI, the policy which replaced the INP in 2017.
- 2017 AEMR covering the period from 1 August 2016 to 31 July 2017 describes noise monitoring completed in May 2017 to address this requirement. Though total $L_{Aeq\ (15\ minute)}$ noise levels at Kenvil Close and Wollombi Road were measured above the specified noise limits, the records indicate that NCIA's operations were below 35 dB(A). No exceedances of the L_{Amax} 45 dB(A) sleep disturbance criteria were measured. The measurement methods noted are consistent with the INP.
- 2018 AEMR covering the period from 1 August 2017 to 31 July 2018 describes noise monitoring completed in April 2018 to address this requirement. Though total $L_{Aeq\ (15\ minute)}$ noise levels at Kenvil Close and Wollombi Road were measured above the specified noise limits, the records indicate that NCIA's operations were below 35 dB(A). No exceedances of the L_{Amax} 45 dB(A) sleep disturbance criteria were measured. The measurement methods noted are consistent with the INP.

3.8.3 Water

NCIA records water usage and carries out stormwater quality monitoring at pond 4. NCIA captures the majority of its washdown water within an internal reticulation system and recirculates it for reuse as process water. The 2016, 2017 and 2018 AMERs indicate that the annual water usage is below the Condition 44 trigger amounts for seeking approval from HW (refer to Section 3.12.3 below).

An Erosion and Sediment Control Plan (ESCP) is provided in Appendix F of the Operational Environmental Management Plan (OEMP). This ESCP was prepared in 2003. A review of the ESCP (Figure 3.1) during the site visit found that the erosion and sediment control devices on site are generally consistent with the ESCP. It is recommended that the ESCP figure be updated during the next three-yearly review of the OEMP. The updated OEMP was provided to DP&E in February 2018.

An Erosion and Sediment Control Plan (ESCP) is provided in Appendix F of the Operational Environmental Management Plan (OEMP). This ESCP was prepared in 2003. A review of the ESCP (Figure 3.1) during the site visit found that the erosion and sediment control devices on site are generally consistent with the ESCP. The updated OEMP was provided to DP&E in February 2018. It is recommended that the ESCP figure is updated during the next three-yearly review of the OEMP to accurately reflect the current ESCP arrangements.

3.8.4 Waste

The site has designated areas for waste. Waste generated prior to the kiln process area in the production cycle (un-fired green tiles) is fed back into the manufacturing process for reutilisation. Dust collected from the fabric filters is also mixed with water to form a slurry and reused in the manufacturing process. Waste tiles following firing (kiln process area) is stockpiled and periodically removed by a contractor for offsite disposal. All other waste generated by the site is disposed of offsite by an appropriately licenced contractor.

The volume of waste tiles on site appears to have increased since the 2015 audit. The NCIA Managing Director indicated that:

- NCIA would like to process the waste tiles on site to a saleable or reusable product. NCIA have had preliminary discussions with their advisors and the DP&E and EPA. The matter has been tabled at NCIA board level and NCIA are committed to finding a long term sustainable best use.
- The EPA visited the site in 2018 in which a site inspection was carried out. The EPA did not flag any major issues with the waste tile stockpile areas on site at that time (refer to Photo 2 and 4 in Appendix D).

3.9 Consultation outcomes

As described in Section 2.6 above, the following authorities were consulted:

- Department of Planning and Environment.
- Office of Environment and Heritage.
- Environment Protection Authority.
- Maitland City Council.
- Hunter Water.

Correspondence was received from the DP&E (refer to Appendix C) indicating that other than compliance with air emissions limits, nothing has been identified for particular attention. No other correspondence or issues were raised with the authorities listed above from the email issues in December 2018 and subsequent phone calls made.

3.10 Complaints

There were no complaints made during the audit period as noted in the 2016, 2017 and 2018 AEMRs.

3.11 Incidents

The 2016 AEMR indicates that there were no reportable incidents in 2016. As noted in Section 3.3 above, NCIA received a Show Cause Notice from DP&E (as noted in Section 6.2.1 of the 2017 AEMR) with regard to one exceedance of the 24-hour PM_{10} criterion and one exceedance of the fluoride load limit as reported in the 2015-2016 AEMR. This resulted in NCIA received a Penalty Notice Advice with two Penalty Notices and two Official

Cautions from the EPA in August 2018, for allegedly failing to comply with various provisions of the POEO Act and the conditions of the EPL, which is an alleged breach of Section 64(1) of the POEO Act.

Section 6.2 of the 2018 AEMR indicates that there were no reportable incidents during the 2018 reporting period, other than the exceedances of the EPL or Project Approval criteria in Table 6-1 of the 2018 AEMR that were reported to DP&E upon receipt of laboratory analysis. Table 6.1 of the AEMR indicates that 15 non-compliances were recorded during the 2018 reporting period and related to fluoride and particles discharges to air.

The NCIA Managing Director advised that the EPA had since inspected the site in 2018 with no further notices issued.

3.12 Actual versus predicted environmental impacts

The following provides a summary of the actual versus predicted environmental impacts.

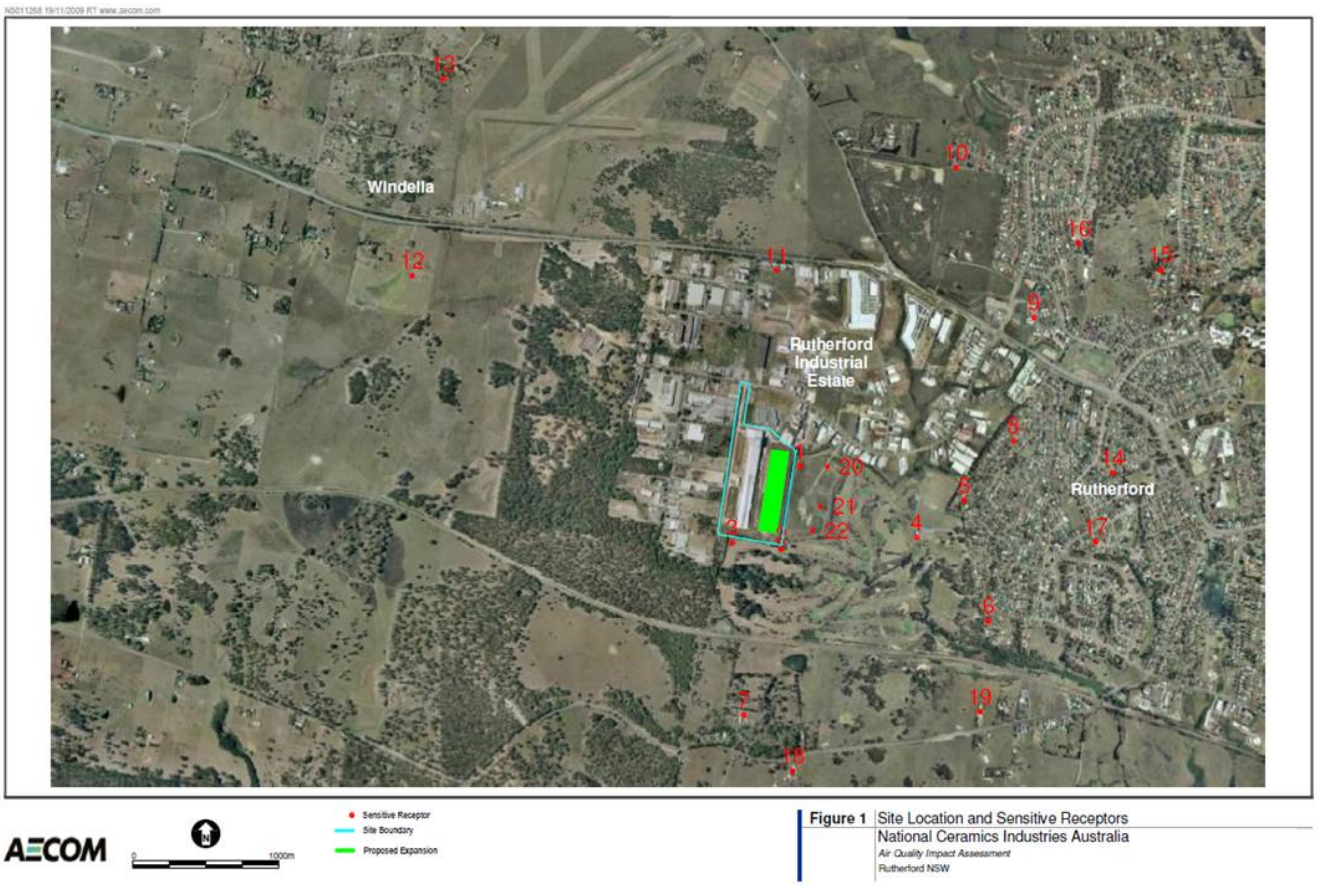
3.12.1 Air quality

Ambient air quality

Potential air quality impacts were quantitatively assessed for two assessment scenarios (Scenario 1 – approved facility, stages 1 to 4; and Scenario 2 – approved and proposed production lines, stages 1 to 8) in the NCIA Expansion EIS (AECOM, 2010). The following results were predicted for Scenario 1:

- PM_{10} 24-hour averaged: Exceedances at the boundary (cumulative concentrations up to 56 micrograms per cubic metre); compliance at nearby residential receivers except receiver 4 (nearest receive assessed to the east of the facility) where a cumulative concentration of 51 micrograms per cubic metre was predicted, compared with the impact assessment criteria of 50 micrograms per cubic metre.
- PM_{10} Annually averaged: Compliance at boundary (highest cumulative concentration of 29 micrograms per cubic metre) and off-site residential receiver (28 micrograms per cubic metre) locations compared with the 30 micrograms per cubic metre impact assessment criteria.
- TSP Annually averaged: Compliance at boundary (highest cumulative concentration of 84 micrograms per cubic metre) and off-site residential receiver (84 micrograms per cubic metre) locations compared with the 90 micrograms per cubic metre impact assessment criteria.
- Total fluoride as hydrogen fluoride (24-hour averaged): Compliance at boundary (highest cumulative concentration of 2.9 micrograms per cubic metre) compared with 2.9 micrograms per cubic metre Project Limit. Compliance was predicted at all nearby residential receivers except receiver 22 (refer to Figure below).
- Total fluoride as hydrogen fluoride (7-day averaged): Compliance at boundary (highest cumulative concentration of 1.3 micrograms per cubic metre) and off-site residential receiver (1.5 micrograms per cubic metre) locations compared with the 1.7 micrograms per cubic metre Project Limit.
- Total fluoride as hydrogen fluoride (90-day averaged): Exceedances at the boundary (cumulative concentrations up to 0.66 micrograms per cubic metre) and off-site receptor locations 20, 21 and 22 (refer to figure below) compared with 0.5 micrograms per cubic metre Project Limit.
- NO_x as NO_2 (1-hour): Compliance at boundary (highest cumulative concentration of 196 micrograms per cubic metre) and off-site residential receiver (196 micrograms per cubic metre) locations compared with the 246 micrograms per cubic metre impact assessment criteria.
- NO_x as NO_2 (Annual): Compliance at boundary (highest cumulative concentration of 44 micrograms per cubic metre) and off-site residential receiver (43 micrograms per cubic metre) locations compared with the 62 micrograms per cubic metre impact assessment criteria.
- SO_2 (10-min): Compliance at boundary (highest concentration of 298 micrograms per cubic metre) and off-site residential receiver (302 micrograms per cubic metre) locations compared with the 712 micrograms per cubic metre impact assessment criteria.

- SO_2 (1-hr): Compliance at boundary (highest cumulative concentration of 495 micrograms per cubic metre) and off-site residential receiver (493 micrograms per cubic metre) locations compared with the 570 micrograms per cubic metre impact assessment criteria.
- SO_2 (24-hour): Compliance at boundary (highest cumulative concentration of 117 micrograms per cubic metre) and off-site residential receiver (119 micrograms per cubic metre) locations compared with the 228 micrograms per cubic metre impact assessment criteria.
- SO_2 (Annual): Compliance at boundary (highest cumulative concentration of 24 micrograms per cubic metre) and off-site residential receiver (21 micrograms per cubic metre) locations compared with the 60 micrograms per cubic metre impact assessment criteria.
- Sulfuric acid mist and metals: Compliance at off-site residential receiver (highest incremental contribution of 13.5 micrograms per cubic metre) locations compared with the 18 micrograms per cubic metre impact assessment criteria.
- Metals, hazardous substances: Concentrations below relevant impact assessment criteria at off-site receiver locations for antimony, arsenic, beryllium, cadmium, chromium, copper, magnesium, manganese, mercury, nickel, zinc and lead.



Source: NCIA Expansion EIS (AECOM 2010)

Ambient measurements are collected for particulate matter and fluoride and are presented in the 2016, 2017 and 2018 AEMRs. No exceedances of the PM_{10} 24-hour averaged impact assessment criteria (50 micrograms per cubic metre) measured at the two boundary monitoring locations were primarily attributed to operations at the facility, with elevated regional background conditions the main explanation for most of the results recorded above 50 micrograms per cubic metre. Annual concentrations over the audit period at the two boundary monitoring locations ranged from 18 to 31 micrograms per cubic metre, consistent with the boundary concentrations predicted in the NCIA Expansion EIS (AECOM, 2010).

The ambient fluoride monitoring at the two boundary locations indicated that the highest 24-hour concentrations of 2.7, 2.2 and 3.2 micrograms per cubic metre were measured and reported in the 2016, 2017 and 2018 AEMRs respectively. These results are in the same order of magnitude as the highest level predicted in the EIS (2.9 micrograms per cubic metre), noting that the value measured in 2018 is above the 2.9 micrograms per cubic metre Project Limit. Highest 7-day fluoride concentrations of 1.1, 0.8 and 0.7 micrograms per cubic metre were measured; less than but generally consistent with the highest level (1.3 micrograms per cubic metre) predicted in the NCIA Expansion EIS (AECOM, 2010).

Stack emission testing

Table 14 from the 2016 AEMR, Table 14 from the 2017 AEMR and Table 5-2 from the 2018 note that pollutant concentrations from stack measurements of various sources at the facility vary from the values applied in modelling conducted as part of the EIS. In particular, particulate matter, total fluoride, sulfuric acid mist and cadmium concentrations from Kilns 1 and 2 were regularly measured at concentrations materially higher than the values that were adopted.

The AEMR tables described above have been replicated below.

2016 AEMR - Comparison of emission concentrations used in EIS and values measured during stack testing with 'bolded' values indicating measured values exceeding EIS values, (AECOM, 2016)

Table 14 Comparison of emission concentrations used in 2010 EA modelling and measured in stack emission concentrations for the current reporting period

Source	Emission Concentration (mg/m^3)							
	Fine particulate	Total Particulate	Total Fluoride (as HF)	Sulfuric acid mist (H_2SO_4 as SO_3)	Total Hazardous substances (Metals)	Total Oxides of Nitrogen	Cadmium	Mercury
Kiln 1 (EPL 14)	3.1 (5.3)	4.7 (5.3)	**7.5** (5.0)	8.0 (9.6)	0.038 (0.2)	44.0 (50.0)	0.0023 (0.003)	0.000097 (0.01)
Kiln 2 (EPL 15)	5.2 (5.3)	**10.0** (5.3)	**15.2** (5.0)	**77.0** (9.6)	0.16 (0.2)	49.0 (50.0)	**0.016** (0.003)	0.0016 (0.01)
Clay preparation (CP1) (EPL 1)	<0.27 (2.0)	0.26 (2.3)	-	-	-	-	-	-
Pressing and Drying (PD1) (EPL 2)	1.9 (2.5)	**20.0** (4.8)	-	-	-	-	-	-
Dryer (D1) (EPL 5)	5.0 (8.4)	8.5 (12.8)	-	-	-	-	-	-
Dryer (D2) (EPL 6)	3.2 (8.4)	4.7 (12.8)	-	-	-	-	-	-
Glaze Line (EPL 9)	0.98 (1.9)	1.0 (4.3)	-	-	-	-	-	-
Selection Line (SL 1,2,3,4) (EPL 10)	<0.27 (6.3)	1.2 (6.3)	-	-	-	-	-	-
Spray Dryer (SD1) (EPL 12)	<0.32 (13.1)	2.1 (13.1)	-	-	-	-	-	-
Hot Air Cooler 1 (HAC1) (EPL 18)	**1.7** (0.3)	**9.7** (2.3)	-	-	-	-	-	-
Hot Air Cooler 2 (HAC2) (EPL 19)	**3.5** (0.3)	**3.7** (2.3)	-	-	-	-	-	-

Note – Emissions concentrations used in 2010 EA modelling are shown in parentheses.
Bold text identifies where measured in stack emission concentrations during the reporting period are greater than emission concentrations used in 2010 EA modelling.

2017 AEMR - Comparison of emission concentrations used in EIS and values measured during stack testing with 'bolded' values indicating measured values exceeding EIS values, (AECOM, 2017)

Table 14 Comparison of emission concentrations used in 2010 EA modelling and measured in stack emission concentrations for the current reporting period

Source	Emission Concentration (mg/m^3)							
	Fine particulate (PM_{10})	Total Particulate	Total Fluoride (as HF)	Sulfuric acid mist (H_2SO_4 as SO_3)	Total Hazardous substances (Metals)	Total Oxides of Nitrogen	Cadmium	Mercury
Kiln 1 (EPL 14)	**10.0** (5.3)	**16.0** (5.3)	**9.7** (5.0)	**<70.0** (9.6)	0.078 (0.2)	29.0 (50.0)	**0.0040** (0.003)	0.00080 (0.01)
Kiln 2 (EPL 15)	**13.0** (5.3)	**13.0** (5.3)	1.3 (5.0)	**34.0** (9.6)	0.052 (0.2)	48.0 (50.0)	0.0011 (0.003)	0.00077 (0.01)
Clay preparation (CP1) (EPL 1)	**4.0** (2.0)	**11.0** (2.3)	-	-	-	-	-	-
Pressing and Drying (PD1) (EPL 2)	**3.9** (2.5)	4.1 (4.8)	-	-	-	-	-	-
Dryer (D1) (EPL 5)	5.2 (8.4)	9.2 (12.8)	-	-	-	-	-	-
Dryer (D2) (EPL 6)	7.8 (8.4)	11.0 (12.8)	-	-	-	-	-	-
Glaze Line (EPL 9)	**2.1** (1.9)	**6.5** (4.3)	-	-	-	-	-	-
Selection Line (SL 1,2,3,4) (EPL 10)	4.5 (6.3)	**8.5** (6.3)	-	-	-	-	-	-
Spray Dryer (SD1) (EPL 12)	2.5 (13.1)	4.8 (13.1)	-	-	-	-	-	-
Hot Air Cooler 1 (HAC1) (EPL 18)	**3.3** (0.3)	**3.3** (2.3)	-	-	-	-	-	-
Hot Air Cooler 2 (HAC2) (EPL 19)	**1.1** (0.3)	1.2 (2.3)	-	-	-	-	-	-

Note – Emissions concentrations used in 2010 EA modelling are shown in parentheses.
Bold text identifies where measured in stack emission concentrations during the reporting period are greater than emission concentrations used in 2010 EA modelling.

2018 AEMR - Comparison of emission concentrations used in EIS and values measured during stack testing with 'bolded' values indicating measured values exceeding EIS values, (AECOM, 2018)

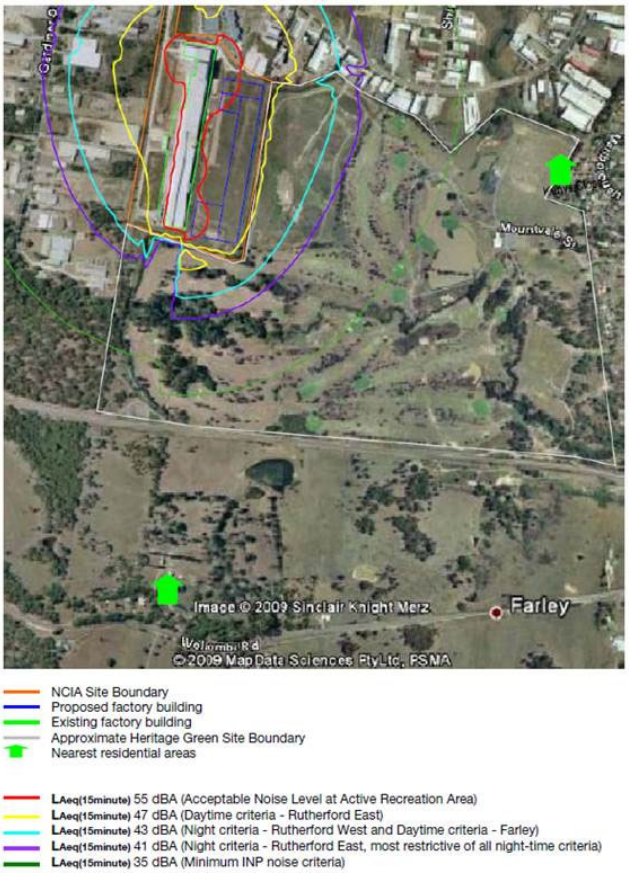
Table 5-2 Comparison of emission concentrations used in 2010 EA modelling and measured in stack emission concentrations for the current reporting period

Source	Emission Concentration (mg/m^3)							
	Fine particulate (PM_{10})	Total Particulate	Total Fluoride (as HF)	Sulfuric acid mist (H_2SO_4 as SO_3)	Total Hazardous substances (Metals)	Total Oxides of Nitrogen	Cadmium	Mercury
Kiln 1 (EPL 14)	**7.8** (5.3)	**6.0** (5.3)	0.55 (5.0)	**10** (9.6)	0.16 (0.2)	29 (50.0)	**0.0051** (0.003)	0.0052 (0.01)
Kiln 2 (EPL 15)	**9.1** (5.3)	**15** (5.3)	**14.3** (5.0)	**27** (9.6)	0.17 (0.2)	28 (50.0)	**0.0053** (0.003)	0.0067 (0.01)
Clay preparation (CP1) (EPL 1)	**3.2** (2.0)	**4.3** (2.3)	-	-	-	-	-	-
Pressing and Drying (PD1) (EPL 2)	1.6 (2.5)	4.0 (4.8)	-	-	-	-	-	-
Dryer (D1) (EPL 5)	**13** (8.4)	**13** (12.8)	-	-	-	-	-	-
Dryer (D2) (EPL 6)	**14** (8.4)	**14** (12.8)	-	-	-	-	-	-
Glaze Line (EPL 9)	1.4 (1.9)	2.6 (4.3)	-	-	-	-	-	-
Selection Line (SL 1,2,3,4) (EPL 10)	2.6 (6.3)	5.4 (6.3)	-	-	-	-	-	-
Spray Dryer (SD1) (EPL 12)	2.7 (13.1)	2.0 (13.1)	-	-	-	-	-	-
Hot Air Cooler 1 (HAC1) (EPL 18)	**2.9** (0.3)	**5.8** (2.3)	-	-	-	-	-	-
Hot Air Cooler 2 (HAC2) (EPL 19)	**1.2** (0.3)	1.7 (2.3)	-	-	-	-	-	-

Note – Emissions concentrations used in 2010 EA modelling are shown in parentheses.
Bold text identifies where measured in stack emission concentrations during the reporting period are greater than emission concentrations used in 2010 EA modelling.

3.12.2 Noise

$L_{AEq15\ minute}$ noise levels from existing (i.e. Scenario 1 – approved facility, stages 1 to 4) for calm conditions were predicted in the noise and vibration impact assessment prepared for the NCIA Expansion EIS (AECOM, 2010) as shown in the figure replicated below.



Source: NCIA Expansion EIS (AECOM, 2010)

$L_{AEq15\ minute}$ noise levels were predicted to be less than 35 dB(A) at the nearest sensitive receiver locations to the south and east of the facility. Monitoring results collected over the period of the audit presented in AEMRs 2016, 2017 and 2018 reported maximum contributions from NCIA at these receivers of 33, 32 and 32 dB(A) respectively; consistent with the results presented in the noise and vibration impact assessment prepared for the NCIA Expansion EIS (AECOM, 2010). No L_{AMax} predictions for present operations were presented in AECOM, 2010; although it is noted that L_{Amax} noise levels from the facility were below the 45 dB(A) limit outlined in Condition 26 of the Project Approval.

Further, it is noted that since Project Approval 09_0006, houses are now closer to the facility than the two monitoring locations specified, along Waterside Close, Victory Way, Tournament Street, Midfield Close and Mountvale Street.

3.12.3 Water

NCIA records water usage and carries out stormwater quality monitoring at pond 4. NCIA captures majority of its washdown water within an internal reticulation system and recirculates it for reuse as process water.

The 2010 EA indicates that water consumption would be:

- About 1,772kL per week (about 92ML per annum) for Stages 1–4; and

- An equivalent volume of potable water as Stage 1–4 for a cumulative expected consumption of up to 3,544kL per week (about 184ML per annum) for Stages 5–8.

NCIA have no regulatory limit on water usage, however Condition 44 of the Project Approval requires NCIA to seek approval from Hunter Water before its water consumption exceeds 92ML/year. The AEMRs indicated the annual water usage for the site was as follows:

- AEMR 2016 – 42 ML/year.
- AEMR 2017 – 47 ML/year.
- AEMR 2018 – 72 ML/year.

The annual water usage was below the predicted amount for Stage 1-4 and under the Condition 44 requirements; therefore, approval from Hunter Water had not been sought or required.

Water quality monitoring in Pond 4 included acidity (pH), electrical conductivity (EC), water temperature, and visual observations of turbidity levels, odour and colour. The AMERS indicated that:

- pH ranged from about 6.5 and 8.5.
- EC values were low at about 500 microsiemens per centimetre indicating that the water was non-saline and within the ANZECC guidelines for the audit period.

3.12.4 Waste

NCIA have no regulatory requirements in terms of waste generation quantities, types or production efficiency targets. The EA indicates that operational waste includes green tiles, broken fired tiles, baghouse waste, consumables, packaging waste and general domestic waste generated within the office and lunchroom. The EA estimated about 275,000 tonnes per annum of fired tile waste when stages 5 to 8 are operational, with an annual volume of fired tiles going to waste of about 2,720 tonnes.

The Project Approval outlines that a designated area for the storage and collection of waste and recyclable material must be provided at the facility (Condition 52). Designated areas are provided on site for the storage of fired waste and other wastes. The volume of waste tiles on site appears to have increased since the 2015 audit. The NCIA Managing Director indicated that on 24/1/2019 (after a 5 week production shutdown) there is very little waste tile left on site.

As indicated in Section 3.8.3 above, NCIA would like to process the waste tiles on site to a saleable or reusable product. NCIA have had preliminary discussions with their advisors and the DP&E and EPA. The NCIA Managing Director indicated that the matter has been tabled at NCIA board level and NCIA are committed to finding a long term sustainable best use. This would substantially reduce the NCIA offsite waste disposal volumes.

The 2018 AEMR indicates that the NCIA green tile waste target of not exceeding 1% of the total tile production was achieved each month for this reporting period. The 8% target for fired tiles was exceeded for 10 months of the reporting period, with a monthly average of 9.85%. These results were similar to the 2016 and 2017 AEMR reported results. As indicated above NCIA are exploring potential on site processing options to turn this waste into reusable saleable product.

3.13 Site inspection

A site inspection was carried out on 10 December 2018 by the lead auditor. The site inspection consisted of a walk through the delivery, factory, warehouse, around the outside of the warehouse and dispatch areas.

The site inspection found that NCIA actively carried out routine maintenance and housekeeping inside the warehouse for the production lines to manage the efficiency of the equipment and tile making process. Downtime and housekeeping were used as the main key performance indicator (KPI) at the site for each team. Each team was assigned an Area Manager who was responsible for reporting and recording maintenance and production for their area. The site has a major shutdown period (about 5 weeks) for maintenance at the end of

each year. NCIA had a file sharing system used to record maintenance and machinery checks, operational requirements and performance and daily maintenance checks for the baghouse, air leaks etc.

During the site visit factory personnel were sighted carrying out housekeeping and general maintenance activities throughout the production areas. Waste tile transfer into removal vehicles was also observed. Some dust was generated by this process; however, no dust was observed leaving the site. The volume of waste tiles to be removed from the site appears to have increased since the 2015 audit. The NCIA Managing Director indicated that:

- NCIA would like to process the waste tiles on site to a saleable or reusable product. NCIA have had preliminary discussions with their advisors and the DP&E and EPA. The matter has been tabled at NCIA board level and NCIA are committed to finding a long term sustainable best use.
- The EPA visited the site in 2018 in which a site inspection was carried out. The EPA did not flag any major issues with the waste tile stockpile areas on site at that time (refer to Photo 2 and 4).
- On 24 January 2019 (after a 5 week production shutdown) there is very little waste tile left on site.

The photographs provided in Appendix D were taken during the site inspection. The photographs show that the:

- Site entrance has a cement median (refer to Photo 1).
- Warehouse doors are generally kept closed in material delivery area to minimise dust emissions during delivery (refer to Photo 5).
- Diesel storage tank is located in a bunded area (Photo 6).
- There are three waste tile areas on site (Photo 2 and 4).
- The fill storage area from the warehouse extension (Photo 3).
- Production areas are keep clean (Photo 7, 8 and 9).

3.14 Site interviews

Section 2.5 details the NCIA personnel interviewed during the site visit. The Managing Director provided majority of the information during the audit, with assistance from the Administration and Finance Manager and Factory Manager. During the interviews NCIA personnel provide information as requested, outlined the site environmental management process and facilitated the site tour.

3.15 Key strengths

The following key strengths were identified:

- NCIA operations are generally compliant with the Project Approval requirements.
- Continuous housekeeping and maintenance practices were sighted being implemented during the site visit.
- Monitoring appears to be carried out as per the EPL and Project Approval requirements.
- Noise monitoring results outlined in the 2016, 2017 and 2018 AEMRs indicate that the site operates under its approved noise criteria.

4. Recommendations

4.1 Not compliant

Non-compliant requirements that were identified during the audit have been provided in Table 4.1 below. Refer to Appendix A for the complete audit findings and further context for the circumstances of each Not complaint item below.

Table 4.1: Summary of Not complaint requirements

#	Reference	Condition	Recommendation
1	Project Approval 16 Load Limits	Unless the OEH specifies otherwise, the Proponent shall ensure that the annual total load discharged from the site does not exceed the load limit specified for that pollutant in Table 3. **Assessable Pollutant** — **Load limit (kg)** Coarse Particulates (Air) — 14338.00 Fine Particulates (Air) — 26629.00 Fluoride (Air) — 1850.00 Nitrogen Oxides (Air) — 36828.00 Sulfur Oxides (Air) — 36828.00	NCIA to implement relevant measures to ensure compliance with the Project Approval load limits. NCIA to review and address stack concentrations that are above values used in the NCIA Expansion EIS (AECOM, 2010).
2	Project Approval Discharge limits and Stack Discharge Design Requirements 18	Unless otherwise specified by the Director-General, the Proponent shall: a) comply with all monitoring (points) requirements and pollutant discharge concentrations as specified by the OEH in the EPL; and	NCIA to review and address stack concentrations that are above values used in the NCIA Expansion EIS (AECOM, 2010) and this condition of the approval.
3	Project Approval Discharge limits and Stack Discharge Design Requirements 18	b) ensure that the stack discharge design requirements comply with the EPL.	Refer to recommendation above for Condition 18 a).
4	Project Approval 32 Lighting	The Proponent shall ensure that the lighting associated with the project: a) complies with the latest version of Australian Standard *AS 4282(INT) - Control of Obtrusive Effects of Outdoor Lighting*	When the construction of the project extension commences carry out a review of the existing lighting on site to determine if it complies with the relevant standards and upgrade as required. All new lighting to comply with AS 4282.

#	Reference	Condition	Recommendation
5	Project Approval Oversized Transportation 35	The Proponent shall obtain a permit for an oversized and over mass load from the RTA, if transportation of oversized or over mass materials or machinery is required for the project.	NCIA should attempt to locate the oversized transportation approval for the one oversized load received in 2018.
6	Project Approval 38 Vehicle Queuing and Parking	The Proponent shall ensure that the parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking area in accordance with the current relevant Australian Standards *AS2890.1:2004*, except where amended by other conditions of this approval.	When the construction of the project extension commences car parking to be realigned to comply with AS2890. Any additional car parking will need to be in compliance with AS2890.
7	Project Approval 39 Vehicle Queuing and Parking	The Proponent shall ensure that disabled parking and assess is provided on-site and shall comply with Australian Standard *AS1428.1 (2001) - Design for Access and Mobility - Part 1 General Requirements for Access – Buildings*.	When the construction of the project extension commences car parking to be realigned to comply with AS2890. Any additional car parking will need to be in compliance with AS2890.
8	Project Approval Environmental Reporting 59	Within 7 days of the detection of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.	Continue to report incidents within the allocated timeframes.
9	SoC Operation	Fluoride emissions would be managed within the kiln baghouses by implementing a mechanism where a fine spray of lime is injected into the kiln exhaust flow to scrub the HF emissions;	Implement the mechanism where a fine spray of lime is injected into the kiln exhaust flow to scrub the HF emissions.
10	IER 2015 Recommendation S3.28	3.28.1 NCIA should attempt to locate the Stage 1 Noise Validation Report.	NCIA should continue to attempt to locate the Stage 1 Noise Validation Report.
11	IER 2015 Recommendation S3.32	3.32.1 NCIA should either review the construction contract for the facility to assess if lighting was required to be installed in accordance with AS 4282:1997; or if this information is not available or is inconclusive, commission a qualified lighting expert to undertake a survey or audit of the outdoor lighting against AS 4282:1997 to verify its	No further recommendations provided. Refer to Project Approval 32 Lighting above.
12	IER 2015 Recommendation S3.38	3.38.1 To comply with this condition, NCIA must provide markings in accordance with Australian Standard AS2890.1:2004.	No further recommendations provided. Refer to Project Approval 38 above.

#	Reference	Condition	Recommendation
13	IER 2015 Recommendation S3.39	3.39.1 To comply with this condition, NCIA must provide markings in accordance with Australian Standard AS1428.1:2001.	No further recommendations provided. Refer to Project Approval 38 above.

4.2 Opportunities for improvement

Several improvement opportunities were identified during the audit and are outlined in Table 4.2.

Table 4.2: Opportunities for Improvement

#	Description	Opportunity of improvement
1	2015 IER recommendation 3.16.1 related to future AEMRs verification of actual load of accessible pollution	It is recommended that future AEMRs include reference to the specific load calculation methodology (including input data) from within the Load Calculation Protocol for ceramics production that has been applied.
2	Waste tiles	It is recommended that NCIA formalise a long term strategy and seek relevant approvals for waste tiles.
3	Erosion and sediment control plan	Although the site erosion and sediment control devices are generally consistent with the OEMP ESCP, it is recommended that the ESPC figure in Appendix F of the OEMP be updated during the next three-yearly OEMP review.
4	Noise monitoring for Project Approval 09_0006 Condition 26	Alternative approaches to monitoring could be applied during compliance monitoring by measuring at/near the facility, and conservatively applying distance attenuation to estimate contributions at nearby receiver locations. This approach would provide a clear, appraisal of any contributions from NCIA's operations.
5	NPI updates to minimum operational noise limits	As per Section 2.3 of the NPI, minimum intrusiveness noise levels during day time periods are $L_{Aeq\ 15\ minute}$ 40 dB(A). Though operational noise from the facility did not present any issue in the 2015-2018 period reviewed, it is possible that the more stringent $L_{Aeq\ 15\ minute}$ 35 dB(A) could be updated to be consistent with present guidance from the NPI. Similarly, the L_{AFMax} sleep disturbance limit could also be updated from 40 to 52 dB(A), consistent with guidance in Section 2.5.

5. Conclusions

NCIA operations are generally compliant with the Project Approval. There were 88 Compliant and 13 Not Compliant requirements identified, with a number of Project Approval and Statement of Commitment requirements Not Triggered as they relate to the construction and operation of subsequent stages of the project.

Although there were no reportable incidents noted in the AEMRs during the audit period NCIA was issued with a Show Cause Notice and two penalty notices in 2018 for a breach of the POEO Act in relation to the 2016-2017 Annual return. As agreed through further discussions with DP&E, NCIA now reports all exceedances of performance criteria to the DP&E compliance team upon receipt of verified laboratory analysis.

Waste fired tile management appears to be an area that could do with some attention. This was evidenced by the volume of waste tiles on site. NCIA would like to process the waste tiles on site to a saleable or reusable product NCIA have had preliminary discussions with their advisors and the DP&E and EPA. The NCIA Managing Director indicated that the matter has been tabled at NCIA board level and NCIA are committed to finding a long term sustainable best use.

Ambient air quality is carried out monthly. There were non-attributable exceedances noted in the AEMRs, with Annual PM_{10} concentrations under the criterion. Ambient fluoride 24-hour concentrations were below the project limit in 2016 and 2017 and above the project limit in 2018. NCIA are also in discussion with the EPA about the implementation of a Pollution Reduction Program for improving air quality emissions on site.

Noise monitoring results collected over the audit period of 33, 32 and 32 dB(A) in 2016, 2017 and 2018 respectively, indicate that noise emissions from the site were below the predicted 35 dB(A) at the nearest sensitive receiver locations to the south and east of the facility.

The annual water usage for the site is below the predicted amount for Stage 1-4 and under the Condition 44 requirements; therefore, approval from Hunter Water has not been sought or required.

No complaints were received during the audit period.

Appendix A. Independent Audit Table

Reference	Condition	Requirement	Evidence	Compliance Status
SCHEDULE 2: GENERAL ADMINISTRATIVE CONDITIONS				
Obligation to Minimise Harm to the Environment	1	The Proponent shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, maintenance, decommissioning and/or rehabilitation of the project.	The current Project Approval (09-0006 dated 19 January 2012) contains conditions that are to be completed prior to the commencement of the next stage of construction as outline din the 2010 EA. Many of these conditions have not been triggered as construction of the next stage has not been commenced or commissioned. The Operational Environmental Management Plan (OEMP) was updated in February 2018 following a three-yearly review and provides the framework for the management of the environment on site. The Project Approval does not include a requirement for an OEMP. Instead it requires the preparation of an Environmental Management Strategy prior to the commencement of construction of the next stage of works. NCIA's uses the OEMP to management environmental aspects on site as the requirements for an Environmental Management Strategy has not been triggered. As outlined in the table below NCIA is generally compliant with the Conditions of Approval. Where compliance has not be achieved it has been noted as Not compliant.	-

Reference	Condition	Requirement	Evidence	Compliance Status
Terms of Approval	2	The Proponent shall carry out the project generally in accordance with the: a) EA; b) Statement of Commitments; c) Submissions Report; and d) Conditions of this approval.	NCIA has generally carried out the operations on site in accordance with the EA, Statement of Commitments, submissions report and Project Approval. Where compliance has not been achieved this has been noted as Not compliant. The Statement of Commitments (SoC) from the EA has been included in this audit table. This is considered sufficient for addressing the EA. NCIA operates the site generally in accordance with the Environmental Assessment (EA). Where current operations have been found during this audit not in accordance with the EA they have identified as non-compliant. As noted above some SoC have not been activated as they relate to the next stage of construction. Reviewed within this audit table as noted below. The findings of the audit indicate that the site is generally managed in accordance with the SoC. Some SoC's have not been triggered as the next stage of construction has not been commenced or commissioned. Where current operations are not in accordance with the SoC they have identified as Not Compliant. Conditions of Approval are reviewed within this audit table.	-

Reference	Condition	Requirement	Evidence	Compliance Status
	-	*Note: The Proponent's Statement of Commitments are included as Appendix 1. The Project Site Plan, Floor Plan and Elevations are included as Appendix 2, 3 and 4 respectively.*	Noted.	-
	-	If there is any inconsistency between the above, the conditions of this approval shall prevail to the extent of the inconsistency.	Noted.	-
	3	The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:	Noted. There have been no additional requirements by the Secretary. Consultation with the Department of Planning & Environment (DP&E), Office of Environment and Heritage (OEH), Hunter Water (HW), Environmental Protection Authority (EPA) and Maitland City Council was carried on 5 December 2018 (refer to Appendix B of this report). Correspondence was received from DP&E on Monday 10 December 2018 indicated that other than compliance with air emissions limits nothing has been identified for particularly attention for the IER. No consultation comments were received from the other agencies/authorities consulted.	Not triggered
	a)	any reports, plans, strategies or correspondence that are submitted in accordance with this approval; and		
	b)	the implementation of any actions or measures contained in these reports, plans, strategies or correspondence submitted by the Proponent.		
Limits on Approval	4	The Proponent shall not produce more than 25.6 million m^2 of ceramic tiles per annum on site.	Tile production documented in AEMRs as: FY15/16: 5.03 million m^2 FY16/17: 5.09 million m^2 FY17/18: 5.41 million m^2.	Compliant
		Note: The capacity of the ceramic tile manufacturing facility at the completion of each stage of construction shall be consistent with that described in the EA.	Stages 3 to 8 have not been constructed or commissioned. Therefore, the current maximum production as noted in the EA is 6.4 million m^2. As indicated in condition 4 the current production (FY17/18: 5.41 million m^2) is under the EA approved annual production.	Compliant
	5	The Proponent shall ensure that an increase or progression to a Stage represents an	There have been no increases or progression in a stage during the audit period.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
		increase in production by no more than an additional 3.2 million m^2 of tiles.		
Surrender of Existing Development Consent Rights	6	Within 12 months of this approval, or as otherwise agreed by the Director-General, the Proponent shall surrender all existing development consents and project approvals for the site, apart from this project approval, in accordance with Sections 75YA and 104A of the EP&A Act.	The Annual Environmental Management Reports (AEMRs) document that NCIA relinquished the previous development consent (DA 449-12-2002-i) with effect from 19 January 2013. The 2015 audit report indicates that the consultation response from DP&E included confirmation that the previous consents have been surrendered.	Compliant
		Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 4A of the EP&A Act. Surrender of a consent or approval should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.	Noted	-
Structural Adequacy	7	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	The warehouse was extended in 2017/18. The extension consisted of a new concrete slab and warehouse type structure (floors, walls, doors and roofing) in the same materials as the current warehouse configuration. It was built on the area shown in Project Approval 09_0006 Appendix 3 that is within approved footprint. NCIA contracted Drayton Building Company to construct the warehouse extension and implement relevant requirements. A portion (about 20m) of the entrance road was widened in 2017 near the carpark. This was to cater for delivery vehicles that previously parked on the dirt in this area.	Compliant
		Notes:		

Reference	Condition	Requirement	Evidence	Compliance Status
		• *Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.*	Noted. No additional stages of the project were constructed during the audit period. As noted above the warehouse was extended and a small portion of the main entrance road was widened.	
		• *Part 8 of the EP&A Regulation sets out the requirements for the certification of the Project.*		
Statutory Requirements	8	The Proponent shall ensure that all necessary licences, permits and approvals are obtained and kept up-to-date as required throughout the life of the project. No condition of this approval removes the obligation for the Proponent to obtain, renew or comply with such licences, permits or approvals.	The site holds Development Approval MP 09_0006; EPL 11956; and Registration Certificate 6699 under the National Industrial Chemicals Notification and Assessment Scheme – NICNAS.	Compliant
Protection of Public Infrastructure	9	The Proponent shall:	No additional stages of the project were constructed during the audit period. No public infrastructure was damaged by the project or relocated during the warehouse extension and small widening of the main entrance road.	Not triggered
	a)	repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and		
	b)	relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.		
Utilities	10	Prior to the construction of any utility works, the Proponent shall obtain the relevant approvals from service providers, including Hunter Water Corporation, Integral Energy and Council.	No additional stages of the project were constructed during the audit period. No works on utilities were carried out as part of the warehouse extension and small widening of the main entrance road.	Not triggered
Operation of Plant and Equipment	11	The Proponent shall ensure that all plant and equipment used on site is:	Downtime and housekeeping are used as the main key performance indicator (KPI) at NCIA for each team. Maintenance and production is managed by Tilewrights	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
			(Area Managers). The site also has a major shutdown period (about 5 weeks) for maintenance at the end of each year. Refer to the rows below for further detail on the systems and forms used to manage maintenance. During the site visit plant appeared to be operating in a proper and efficient manner and was therefore considered to be generally in compliance with this condition. Waste fired tile volumes on site appear to have increased since the 2015 audit. The NCIA Managing Director indicated that they are in discussions with DP&E and Maitland City Council about the planning approval pathway to install a crushing facility to manage/reuse waste fired tiles on site. NCIA has changed their raw materials to reduce fluoride levels but have still not been able to meet their EPA licence requirements for fluoride. NCIA are currently in discussion with the EPA about a pending Pollution Reduction program (PRP) to continue upgrade of the kiln baghouse. The kiln baghouse continued upgrade is scheduled during the end of year shutdown.	
	a)	maintained in a proper and efficient condition; and	A Tilewright (Area Manager) is assigned to manage maintenance and production for their area. All personnel within these areas are trained to maintain equipment, with external technicians used as required (e.g. forklift, electricity). An annual shut down period is held at end of each year for about 5 weeks. Housekeeping and downtime is used as measures to record efficiency for teams. General maintenance and housekeeping being carried out by employees sighted during the site visit. Sighted Selection Area WHS and housekeeping audit dated 26/11/18. These audits are carried out monthly by the Factory Manager and	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
			Deputy Factory Manager. Includes machinery and plant check of records, operation according to manufacturer's instructions, daily maintenance check sheet, bag house inspection, air leak checks etc. Sighted Supervisor Shift Report dated 9/12/18 which notes operational issues for equipment. Supervisors action rectification of issues. These records are scanned and uploaded to a NCIA file share system. An OFS electronic data system captures the number of tiles passing through each section to record efficiency and equipment history. The system allows the Factory Manager to identify deficiencies to be investigated.	
	b)	operated in a proper and efficient manner.	During the site visit factory personnel were sighted carrying out quality and housekeeping tasks. General maintenance activities were also sighted. Refer to the row above for the systems and forms used to manage maintenance and downtime.	Compliant
Staged submission of Plans, Strategies and Programs	12	With written approval of the Director-General, the Proponent may submit any management plan, strategy or monitoring program required by this approval on a progressive basis.	The updated OEMP was finalised on 23/02/2018 by AECOM and reviewed by the NCIA Managing Director. Sighted email from AECOM to DP&E (Leah Cook) on 26/02/18 providing a copy of the updated OEMP.	Compliant
Dispute Resolution	13	In the event that a dispute arises between the Proponent and Council or a public authority other than the Department, in relation to a specification or requirement applicable under this approval, the matter shall be referred by either party to the Director-General, or if not resolved, to the Minister, whose determination of the dispute shall be final	There were no disputes documented during the audit period.	Not triggered

<table>
<tr><th>Reference</th><th>Condition</th><th>Requirement</th><th>Evidence</th><th>Compliance Status</th></tr>
<tr><td></td><td></td><td>and binding to all parties. For the purpose of this condition, ‘public authority’ has the same meaning as provided under Section 4 of the Act.</td><td></td><td></td></tr>
<tr><td>Section 94 Contributions</td><td>14</td><td>During operations, the Proponent shall pay Council an annual contribution of 4.1 cents per kilometre per tonne of product trucked from the site along Racecourse Road to its intersection with the New England Highway (1.7 km). The contribution amount shall be adjusted annually from the date of this approval to account for the effects of inflation (Consumer Price Index).</td><td>Sighted correspondence from NCIA (dated 14/8/18 for FY2017/18 and dated 13/02/2018 for FY2016/17) advising Maitland City Council of the tonnes of material trucked as per the project approval. Email dated 4/12/18 from the NCIA Financial Manager in relation to the invoice follow up for current year. Sighted invoice (#47659) and bank record showing proof of payment (payment ID 115829021).</td><td>Compliant</td></tr>
<tr><td colspan="4">SCHEDULE 3: SPECIFIC ENVIRONMENTAL CONDITIONS</td><td></td></tr>
<tr><td colspan="4">AIR QUALITY</td><td></td></tr>
<tr><td>Dust Limits</td><td>15</td><td>The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria listed in Tables 1 or 2 at any residence on privately-owned land.
Table 1: Long term impact assessment criteria for particulate matter
<table><tr><th>Pollutant</th><th>Averaging period</th></tr><tr><td>Total suspended particulate (TSP) matter</td><td>Annual</td></tr><tr><td>Particulate matter < 10 µm (PM_{10})</td><td>Annual</td></tr></table>Table 2: Short term impact assessment criteria for particulate matter
<table><tr><th>Pollutant</th><th>Averaging period</th></tr><tr><td>Particulate matter < 10 µm (PM_{10})</td><td>24 hour</td></tr></table></td><td>2016 AEMR: One non-attributable exceedance of the PM_{10} 24-hour averaged criteria (50 micrograms per cubic metre~µg/m^3) was measured at the northwest boundary monitoring station. Section 6.1 of the AEMR advises that a subsequent review found that NCIA’s operations was not the main contributing factor for this exceedance.
Annual PM_{10} concentrations were measured below the 30 µg/m^3criterion. No TSP results were presented for comparison with the 90 µg/m^3 criterion annual criterion, although it is noted that PM_{10} typically comprises of around 50% of TSP (i.e. higher indicative annually averaged TSP concentration of 44 µg/m^3), below the 90 µg/m^3 criterion.
2017 AEMR: Three non-attributable exceedances of the PM_{10} 24-hour averaged criteria (50 µg/m^3) were measured across the two on-site boundary monitoring stations. Section</td><td>Compliant</td></tr>
</table>

Reference	Condition	Requirement	Evidence	Compliance Status
			6.1 of the AEMR advises that DP&E were advised of each exceedance upon receipt of laboratory results, and that a subsequent review found that NCIA's operations was not the main contributing factor in each instance. Annual PM_{10} concentrations were measured below the 30 $\mu g/m^3$criterion. No TSP results were presented for comparison with the 90 $\mu g/m^3$criterion annual criterion, although it is noted that PM_{10} typically comprises of around 50% of TSP (i.e. higher indicative annually averaged TSP concentration of 54 $\mu g/m^3$), below the 90 $\mu g/m^3$ criterion. 2018 AEMR: Eight exceedances of the PM_{10} 24-hour averaged criteria were recorded at the northwest monitoring station, as well as a further four at the southeast monitoring location. Section 6.1 of the AEMR advises that DP&E were advised of each exceedance upon receipt of laboratory results, and that a subsequent review found that NCIA's operations was not the main contributing factor in each instance. The annually averaged PM_{10} criterion was also measured to be exceeded (31.4 vs 30.0 $\mu g/m^3$) at the northwest ambient air quality monitoring location, although it is noted that the AEMR states that this value had since returned below 30 $\mu g/m^3$ with the inclusion of 2018 monitoring data received since the 2018 AEMR No TSP results were presented for comparison with the 90 $\mu g/m^3$ criterion annual criterion, although it is noted that PM_{10} typically comprises of around 50% of TSP (i.e. higher indicative annually averaged TSP concentration of 62 $\mu g/m^3$), below the 90 $\mu g/m^3$ criterion.	

Reference	Condition	Requirement	Evidence	Compliance Status
Load Limits	16	Unless the OEH specifies otherwise, the Proponent shall ensure that the annual total load discharged from the site does not exceed the load limit specified for that pollutant in Table 3. **Assessable Pollutant** **Load** Coarse Particulates (Air) Fine Particulates (Air) Fluoride (Air) Nitrogen Oxides (Air) Sulfur Oxides (Air)	2016 AEMR: Maximum allowable load limits (kilograms per year) for fine particulate, coarse particulates, fluoride, sulfur oxides (as sulfuric acid mist and sulfur trioxide [as SO3]), and nitrogen oxides were complied with exception of fluoride, were a value of 2,239 kilograms was reported above the annual limit of 1,850 kilograms. 2017 AEMR: Maximum allowable load limits (kilograms per year) for fine particulate, coarse particulates, fluoride, sulfur oxides (as sulfuric acid mist and sulfur trioxide [as SO3]), and nitrogen oxides were complied with except for fluoride, were a value of 2,411 kilograms was reported above the annual limit of 1,850 kilograms. 2018 AEMR: Maximum allowable load limits (kilograms per year) for fine particulate, coarse particulates, fluoride, sulfur oxides (as sulfuric acid mist and sulfur trioxide [as SO3]), and nitrogen oxides were complied with except for fluoride, were a value of 4,146 kilograms was reported above the annual limit of 1,850 kilograms.	Not compliant
Dust Management	17	The Proponent shall:		
	a)	design, construct, operate and maintain the project in a manner that minimises or prevents the emission of dust from the site;	The OEMP includes an air quality management plan (section 5) in which air emission sources (including dust), monitoring requirements, emission minimisation and reduction measures are outlined. Dust during the tile waste loading process was sighted during the site visit on 10 December 2018. No dust was sighted leaving the site. Warehouse has doors are generally shut when not in use. This was sighted during site visit. Housekeeping is ongoing for dust within the warehouse and around equipment.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
			Baghouse pipework and equipment is used to extract and manage dust within the warehouse. Roads within the site are concrete sealed, as are all major trafficable areas. A small portion of the main entrance road near the car park was widened to cater for trucks that park on the dirt. At the back of the warehouse there are some unsealed roads. Delivery vehicles are strapped and covered until unloaded inside the warehouse. Tile delivery trucks are generally strapped instead of covered. Section 8 of the OEMP includes a transport code of conduct. This section outlines that "*All loads of bulk granular material delivered to site are to be covered in accordance with the Load Restraint Guide (National Transport Commission, 2004*." Air quality monitoring stations (2) are located inside the site boundary.	
	b)	take all practicable measures to ensure that all vehicles entering or leaving the site and carrying a load that may generate dust are covered at all times, except during loading and unloading. Any such vehicles shall be covered or enclosed in a manner that will prevent emissions of dust from the vehicle at all times;	Delivery vehicles not sighted during site visit. The Managing Director advised that quarry delivery trucks are strapped and covered until unloading inside the warehouse and that tile delivery trucks are generally strapped instead of covered. Tile delivery truck do not generate dust. At the back of the warehouse there are some unsealed roads, but they are not generally used.	Compliant
	c)	maintain all trafficable areas and vehicle manoeuvring areas on the site in a condition that will minimise the generation or emission of wind blown or traffic generated dust from the site; and	The main trafficable roads used for deliveries are concrete sealed. A portion (20m) of the entrance road near the carpark was widened in 2017. This was to cater for delivery vehicles that previously parked on the dirt area. The internal sealed roads were cleaned following an EPA site inspection in mid 2018 on the 12/10/2018.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
	d)	ensure each kiln is fitted with a dust collection system to capture emissions, to the satisfaction of the Director-General.	Pipework to and Kiln baghouse was in operation as part of the dust collection system for the kiln during the site visit. NCIA has changed their raw materials to reduce fluoride levels but have still not been able to meet their EPA licence requirements for fluoride. NCIA are currently in discussion with the EPA about a pending Pollution Reduction program (PRP) to continue upgrade of the kiln baghouse. The kiln baghouse continued upgrade is scheduled during the end of year shutdown.	Compliant
Discharge limits and Stack Discharge Design Requirements	18	Unless otherwise specified by the Director-General, the Proponent shall:	-	-
	a)	comply with all monitoring (points) requirements and pollutant discharge concentrations as specified by the OEH in the EPL; and	2016 AEMR: As per Section 4.4, air pollutant concentration monitoring was completed at EPL point discharge locations 1 to 21, consistent with EPL condition P1.1. Concentration limits specified in EPL conditions L3.4 were met, with the following exceptions: - EPL point discharge location 14 (Kiln 1): Hydrogen fluoride concentration of 7.5 mg/m^3 above the concentration limit of 5 mg/m^3. - EPL point discharge location 15 (Kiln 2): Hydrogen fluoride concentration of 15.2 mg/m^3 above the concentration limit of 5 mg/m^3. - EPL point discharge location 18 (Hot Air Cooler 1): total particulate concentration of 9.7 mg/m^3 above the concentration limit of 5 mg/m^3. 2017 AEMR: As per Section 4.4, air pollutant concentration monitoring was completed at EPL point discharge locations 1 to 21, consistent with EPL condition P1.1. Concentration limits specified in EPL conditions L3.4 were met, with the following exception:	Not compliant

Reference	Condition	Requirement	Evidence	Compliance Status
			- EPL point discharge location 14 (Kiln 1): Hydrogen fluoride concentration of 9.7 mg/m^3 above the concentration limit of 5 mg/m^3. Section 6.1 indicates that DP&E were notified. 2018 AEMR: As per Section 4.4, air pollutant concentration monitoring was completed at EPL point discharge locations 1 to 21, consistent with EPL condition P1.1. Concentration limits specified in EPL conditions L3.4 were met, with the following exceptions: - EPL point discharge location 15 (Kiln 2): Hydrogen fluoride concentration of 14.3 mg/m^3 above the concentration limit of 5 mg/m^3. - EPL point discharge location 18 (Hot Air Cooler 1): total particulate concentration of 5.8 mg/m^3 above the concentration limit of 5 mg/m^3. • Section 6.1 indicates that DP&E were notified of both non-compliances.	
	b)	ensure that the stack discharge design requirements comply with the EPL.	NCIA are currently in discussion with the EPA about a pending PRP to continue upgrade of the kiln baghouse. The kiln baghouse continued upgrade is scheduled during the end of year shutdown. The Managing Director indicated that the air quality monitoring and vegetation checks outside the warehouse (within the site) are within EPA licence limits. Once the kiln was non-compliant for fluoride in 2018. A penalty notice (ref 31773526070) was received from the EPA on 2/8/18 relating to results from testing completed 2 July 2017.	Not compliant
	19	The proponent shall prepare and implement an Air Quality Management Plan for the	a) Section 5 of the OEMP comprises of an Air Quality Management Plan.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
Air Quality Management Plan		project to the satisfaction of the Director-General. The Plan must:		
	a)	be prepared by suitably qualified expert and submitted to the Director-General for approval prior to commencement of construction of any subsequent stage of the project;	No additional stages were constructed or commenced during the audit period therefore this condition has not been triggered.	Not triggered
	b)	identify all major sources of particulate and gaseous air pollutants that may be emitted as result of the operation of the project, including identification of the major components and quantities of these emissions;	All major sources of particulate and gaseous emissions, including quantities of these emissions is provided in Section 5.1 of the OEMP.	Compliant
	c)	include monitoring of particulate and gaseous emissions from the project, in accordance with any requirements of the EPL;	Section 5.2.1 and 5.2.2 of the OEMP outline the monitoring of particulate and gaseous emissions being completed at the facility. These requirements, including locations, frequency and sampling methods are consistent with conditions M2 and M3 of the EPL.	Compliant
	d)	include continuous dust-leak detection monitoring of fabric filter discharges;	No reference is made to continuous dust-leak monitoring of fabric filter discharges in Section 5 of the OEMP, although it is noted that Section 4.3 notes that this would be implemented “prior to commencement of construction of any subsequent stage”. As the next stage has not been commissioned or constructed this condition has not been triggered.	Not triggered
	e)	include monitoring of the impacts of fluoride on vegetation in accordance with the EPL with sampling/observations designed to assess impacts on sensitive ornamental plants in adjacent residential areas;	The requirements of conditions M2.2 and M2.3 of the EPL relating to hydrogen fluoride monitoring is detailed in Section 5.2.2 of the OEMP.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
	f)	include procedures for the minimisation of particulate and gaseous emissions from the project, and the reduction of these emissions over time, where appropriate;	Section 5.3 of the OEMP includes procedures for the minimisation of particulate and gaseous emissions and the reduction of these emissions over time.	Compliant
	g)	include protocols for regular maintenance of process equipment to minimise the potential for dust emissions;	Section 5.4 of the OEMP includes protocols for regular maintenance of process equipment to minimise the potential for dust emissions at the facility.	Compliant
	h)	detail procedures to be undertaken if any non-compliance is detected;	Section 5.5 and Section 9.0 of the OEMP detail procedures to be undertaken if any non-compliance is detected.	Compliant
	i)	include mechanisms to consider cumulative air quality impacts in the context of development in the Rutherford industrial area; and	Section 5.6 of the OEMP includes mechanisms to consider cumulative air quality impacts in the context of development in the Rutherford industrial area.	Compliant
	j)	outline how data from the relocated meteorological station site would be used as part of the validation modelling required under condition 20.	No additional stages were constructed or commenced during the audit period therefore this condition has not been triggered.	Compliant
Performance Validation Monitoring	20	The Proponent shall prepare and implement Air Emissions Validation Reports to the satisfaction of the Director-General and OEH. These reports must:	Section 9.1 of the 2015 IEA outlined the validation reports submitted for Stages 1 and 2. No additional stages were constructed or commenced during the audit period therefore this condition has not been triggered.	Not triggered
	a)	be prepared by a suitably qualified expert whose appointment has been endorsed by the Director-General;		
	b)	be undertaken within 90 days of the commencement of operation of each stage (stages 1 to 8) of the project and during a period in which the facility is operating under design loads and normal operating conditions;		

Reference	Condition	Requirement	Evidence	Compliance Status
	c)	be conducted in accordance with the documents "*Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales*' and "*Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales*"; and		
	d)	Include:		
		- a program for point source emission testing on each stack as described in the site EPL;		
		- the results of the stack testing and a validation with the project's air emission limits;		
		- a validation against the predictions made in the EA using both simulated and actual site meteorological data collected in accordance with the EPL and as modified by Condition 19(j) above;		
		- details of any exceedances or non-compliance with the limits in the EPL and approval; and		
		- measures to mitigate the exceedance or non-compliance.		
		Should any Air Emissions Validation Reports identify an exceedance or non-compliance, then the Proponent shall implement additional mitigation or attenuation to the satisfaction of the OEH and Director-General within the timeframe specified by the Director-General and prior to any progression to the next stage.		

Reference	Condition	Requirement	Evidence	Compliance Status
Performance Guarantees	21	Prior to the commencement of construction of each stage of the project, the Proponent shall provide manufacturer's performance guarantees for all plant and equipment to demonstrate that all sources of air pollutants will comply with the emission concentration limits specified in the EPL, to the satisfaction of the OEH.	No additional stages were constructed or commenced during the audit period therefore this condition has not been triggered.	Not triggered
Odour	22	The Proponent shall not cause or permit the emission of any offensive odour from the site.	There is no reference to odour in the AEMRs for the audit period. No offensive odours were detected during the site visit. The Managing Director indicated that no complaints have been received in relation to odour. Sighted the Daily Factory Condition Check sheet dated 7/12/18 that included environmental aspects such as odour, observations about site activities and neighbouring site issues noted.	Compliant
		Note: Section 129 of the POEO Act provides that the Proponent shall not cause or permit the emission of any offensive odour from the site, but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the odour was emitted in accordance with the conditions of a licence directed at minimising odour.	Noted	-
Greenhouse Gas Emissions	23	The Proponent shall implement all reasonable and feasible measures to minimise:	Environmental management actions outlined in the AEMRs include:	Compliant
	a)	Energy use on site: and		

Reference	Condition	Requirement	Evidence	Compliance Status
	b)	The scope 1 and 2 greenhouse gas emissions produced on site, To the satisfaction of the Director-General.	• Ongoing installation of solar panel array that will reduce electricity consumption by 10-15% when operational. • Investigation of waste heat recovery process, piping waste hot air from the kilns to the spray dryer, to reduce gas consumption by 10-15% once operational. • Installation of quality assurance machine before the kiln to prevent firing waste tiles, thereby reducing energy.	
	24	The Proponent shall prepare and implement an Energy Savings Action Plan for the project to the satisfaction of the Director-General. The plan shall:	The OEMP states that preparation of an ESAP was initiated; however, following consultation with the Department, involvement with the Energy Efficiency Opportunities program was recommended and pursued as an appropriate alternative. As agreed with the Department, NCIA opted out of the program due to the low level of emissions from the facility. The EEO program is now closed. The 2015 IER indicates that NCIA were deregistered from the *Commonwealth Energy Efficiency Opportunities Act 2006* in 2013 as NCIA did not trigger the energy use requirements under the Act.	Not triggered
	a)	be submitted to the Director-General for approval within 12 months of this approval; and		
	b)	be prepared in accordance with the Guidelines for Energy Savings Action Plans (DEUS 2005).		
NOISE				
Construction and Operation Hours	25	The Proponent shall comply with the hours of operation in Table 4, unless otherwise agreed by the Director-General. Construction activities (with the exception of earthworks and building construction activities) are permitted to occur outside of these hours provided it meets the operational noise criteria as defined in Table 6.	The Managing Director advised that the: • Operation is 24 hours 7 days a week • The loader driver is onsite 7am-7pm for incoming truck delivers • Forklift truck loading operators commence work at 5am capturing stock from the night before and picking loads prior to truck loading commencing at 7am • No construction activities have been undertaken outside of allowable time.	Compliant

<table>
<tr><th>Reference</th><th>Condition</th><th>Requirement</th><th>Evidence</th><th>Compliance Status</th></tr>
<tr><td></td><td></td><td>
Table 4: Hours of Operation
<table>
<tr><th>Activity</th><th>Day</th></tr>
<tr><td>Construction</td><td>Monday - Saturday
Sunday & Public Holidays</td></tr>
<tr><td>Operation</td><td>Monday - Sunday</td></tr>
<tr><td>Truck deliveries to the site and dispatch from the site</td><td>Monday - Sunday</td></tr>
</table>
</td><td>The EPA licence has the same hours of operation and construction as stipulated for this condition. A copy of the EPA Licence is included as an appendix to the OEMP.</td><td></td></tr>
<tr><td>Noise Limits</td><td>26</td><td>The Proponent shall ensure that noise generated from the project does not exceed the noise limits presented in Table 5. Noise generated by the project is to be measured in accordance with the relevant procedures and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.
Table 5: Project Noise Limits, dB(A)
<table>
<tr><th rowspan="2">Location</th><th>Day</th><th>Evening</th><th></th></tr>
<tr><th>$L_{Aeq\ (15\ minute)}$</th><th>$L_{Aeq\ (15\ minute)}$</th><th>$L_{Aeq\ (15\ minute}$</th></tr>
<tr><td>Kenvil Close</td><td>35</td><td>35</td><td>35</td></tr>
<tr><td>Wollombi Road</td><td>35</td><td>35</td><td>35</td></tr>
</table>
</td><td>2016 AEMR covering the period from 1 August 2015 to 31 July 2016 describes noise monitoring completed in May 2016 to address this requirement. Though total $L_{Aeq\ (15\ minute)}$ noise levels at Kenvil Close and Wollombi Road were measured above the specified noise limits, the records indicate that NCIA’s operations were below 35 dB(A). No exceedances of the $L_{Amax\ 45\ dB(A)}$ sleep disturbance criteria were measured. The measurement methods noted are consistent with the NPI, the policy which replaced the INP in 2017.
2017 AEMR covering the period from 1 August 2016 to 31 July 2017 describes noise monitoring completed in May 2017 to address this requirement. Though total $L_{Aeq\ (15\ minute)}$ noise levels at Kenvil Close and Wollombi Road were measured above the specified noise limits, the records indicate that NCIA’s operations were below 35 dB(A). No exceedances of the $L_{Amax\ 45\ dB(A)}$ sleep disturbance criteria were measured. The measurement methods noted are consistent with the INP.
2018 AEMR covering the period from 1 August 2017 to 31 July 2018 describes noise monitoring completed in April 2018 to address this requirement. Though total $L_{Aeq\ (15\ minute)}$ noise levels at Kenvil Close and Wollombi Road were measured above the specified noise limits, the records indicate that NCIA’s operations were below 35 dB(A). No exceedances of the $L_{Amax\ 45\ dB(A)}$ sleep disturbance criteria</td><td>Compliant</td></tr>
</table>

Reference	Condition	Requirement	Evidence	Compliance Status
			were measured. The measurement methods noted are consistent with the INP.	
Noise Management	27	The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. The Plan must:	A Noise Management Plan will be prepared and submitted for approval in accordance with this condition, prior to commencement of construction of subsequent Stages of the project. No additional stages of the project have been constructed during the audit period.	Not triggered
	a)	approval prior to commencement of construction of any subsequent stage of the project;		
	b)	identify all specific activities that will be carried out during construction and operation and associated noise sources;		
	c)	identify all potentially affected sensitive receivers;		
	d)	specify noise criteria (reflect the noise limits presented in Table 5);		
	e)	describe management methods and procedures and specific noise mitigation treatments that will be implemented to control noise emissions;		
	f)	detail an operational noise monitoring program to be prepared by a qualified acoustic consultant and implemented to monitor the effects of the project on the acoustic environment during operation, including road traffic noise, with details of procedures to be undertaken if any non-compliance is detected;		
	g)	detail procedures to receive, record and respond to complaints; and		

Reference	Condition	Requirement	Evidence	Compliance Status
	h)	describe the contingencies that would be implemented, and the timing for implementation, should non-compliances be detected.		
Validation	28	The Proponent shall prepare and implement Noise Validation Reports to the satisfaction of the Director-General. These reports must:	The 2015 IER outlined the validation reports submitted for Stage 2. No additional stages of the project have been constructed during the audit period requiring re-validation of operational noise from NCIA.	Not triggered
	a)	be prepared by a suitably qualified acoustical expert whose appointment has been endorsed by the Director-General;		
	b)	be undertaken within 90 days of the commencement of operation of each subsequent stage (stages 1 to 8) of the project and during a period in which the facility is operating under normal operating conditions;		
	c)	be conducted in accordance with the *NSW Industrial Noise Policy*; and		
	d)	include:		
		- a validation against the predictions made in the EA including the proposed noise attenuation;		
		- details of any exceedances or non-compliance with the noise limits in this approval; and		
		- measures to mitigate the exceedance or non-compliance.		
		Should any Noise Validation Reports identify an exceedance or non-compliance, then the Proponent shall		

Reference	Condition	Requirement	Evidence	Compliance Status
		implement additional mitigation or attenuation to the satisfaction of the OEH and Director-General within the timeframe specified by the Director-General and prior to any progression to the next stage.		
DESIGN				
Architectural Design	29	The Proponent shall construct the facility generally in accordance the elevations shown in Appendix 4 including additional noise attenuation of building sections. Building design shall incorporate the following noise mitigation features:	As no additional stages of the project have been constructed during the audit period, therefore this condition has not been triggered.	Not triggered
	a)	increased thickness of metal sheeting to 0.48 BMT on the east façade, south façade and roof (previous assumption in noise model was 0.3 BMT) with 55 mm insulation fixed to underside of roof;	The existing factory does not have this thickness sheeting. As the next stage has not been commissioned or constructed this condition has not been triggered.	Not triggered
	b)	existing dust extractor to be enclosed;	As the next stage has not been commissioned or constructed this condition has not been triggered. The existing dust extraction system includes pipework connected to the baghouse.	Not triggered
	c)	alsynite roofing on the proposed main building located only on the west section of the roof. This is assuming the roof is pitched and therefore the alsynite panelling is angled away from Heritage Green receivers to the east;	As the next stage has not been commissioned or constructed this condition has not been triggered.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
	d)	no alsynite panels on the east and south walls of the proposed Mill & Spray Dryer section of the building;	As the next stage has not been commissioned or constructed this condition has not been triggered.	Not triggered
	e)	the bag-houses for the proposed kiln stacks shall be located inside the factory building; and	As the next stage has not been commissioned or constructed this condition has not been triggered. The existing baghouses for the kiln sticks are located inside the existing warehouse.	Not triggered
	f)	the dust extraction unit, located on the southern end of the eastern wall of the factory building, shall be enclosed to reduce noise emission to the east and south.	As the next stage has not been commissioned or constructed this condition has not been triggered.	Not triggered
VISUAL				
Landscape Design	30	The Proponent shall prepare and implement a Landscape Management Plan for the project to the satisfaction of the Director-General. The plan shall;	No additional stages of the project have been constructed during the audit period, therefore this condition has not been triggered. A Landscape Management Plan is included within the OEMP, as required under the previous consent.	Not triggered
	a)	be submitted to the Director-General for approval prior to commencement of construction of any subsequent stage of the project;		
	b)	be prepared in consultation with Council;		
	c)	detail existing and proposed landscaping on the site;		
	d)	maximise the use of flora species endemic to the locality in landscaping the site;		
	e)	incorporate weed management for the site; and		
	f)	include a schedule for implementation and maintenance		

Reference	Condition	Requirement	Evidence	Compliance Status
	31	The Proponent shall complete the landscaping along the eastern site boundary within 6 months following the construction of any stage of the new factory building (see figure in Appendix 2).	As the next stage has not been commissioned or constructed this condition has not been triggered.	Not triggered
Lighting	32	The Proponent shall ensure that the lighting associated with the project:	-	-
	a)	complies with the latest version of Australian Standard *AS 4282(INT) - Control of Obtrusive Effects of Outdoor Lighting*;	No documentation could be provided to verify that lighting complies with the latest Australian Standards. Lighting on site appears to be mounted and directed to not cause a nuisance off site. This was not confirmed during the site visit. The Managing Director indicated that no complaints about lighting have been received during the audit period. Not able to be verified.	Not compliant
	b)	is adequate for night time security purposes; and	The Managing Director indicated that lighting was adequate for night time security including for the adequate operation or the site. This was not confirmed during the site visit.	Compliant
	c)	is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	Lighting appeared to be mounted and directed to avoid nuisance. The Managing Director indicated that lighting was adequate for the sites operations and that no complaints have been received about lighting from neighbouring properties during the audit period.	Compliant
Signage	33	The Proponent shall not erect any signage and advertising media at the site, with the exception of internal site signage for traffic management and safety purposes. Any proposed signage will be subject to further application and approval by the Director-General.	A sign is located inside the main entrance gates identifying the occupier.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
Fencing	34	The Proponent shall erect security fencing around the perimeter of the site with lockable gates at each entry point.	Security fencing is located around the perimeter of the site visit. Lockable gates are located at the entrance to the site.	Compliant
TRAFFIC AND ACCESS				
Oversized Transportation	35	The Proponent shall obtain a permit for an oversized and over mass load from the RTA, if transportation of oversized or over mass materials or machinery is required for the project.	One oversized load for the new press in early 2018. The transportation contractor was responsible for arranging the relevant approvals to transport the item to site. The NCIA Managing Director indicated that the transport company had restrictions in relation to delivery of the item to site however was unable to verify that the relevant permits were obtained for the transportation. NCIA should attempt to locate the oversized transportation approval for the one oversized load received in 2018.	Not compliant
Access	36	The Proponent shall:		
	a)	ensure that all vehicles entering and exiting the site do so in a forward direction; and	No vehicles sighted entering or exiting the site during the site visit. Vehicles entering and exiting the site can only do so in a forward direction.	Compliant
	b)	install a median strip or similar device on the driveway to ensure that internal two-way traffic is separated.	A median strip is located at the main entrance to the site.	Compliant
Vehicle Queuing and Parking	37	The Proponent shall ensure that:	Section 8 of the OEMP outlines the transport code of conduct which includes: • Observance of speed limits defined external to and on site of the facility • Loading and unloading activities to be undertaken at designated points only • Vehicle parking and waiting to occur at designated points only • Maintenance of plant and vehicle condition per manufacturer's specifications.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
	a)	a minimum of 70 parking spaces are provided on site;	There are 44 designated car parking spaces available in the car park area near the office / showroom including one disabled car park. Additional car parking spaces are not required until the next stages of the project are commenced and constructed. Seventy car parking spaces are noted in Appendix 1 of the SoC for the EA for the next stages. As the next stages had not commenced at the time of the audit, this condition was not triggered.	Not triggered
	b)	all parking generated by the project is accommodated on site, and that no vehicles associated with the project are parked on the public road system at any stage;	No vehicles sighted parking or queuing on the public road system during the site visit. Section 8 of the OEMP outlines that no vehicles are to park or queue on public roads. The Managing Director indicated that all delivery vehicles enter and exit via the main entrance but that there is no way of knowing if delivery vehicles park overnight on public roads. As there is ample space on site parking or queuing on public roads would be unlikely.	Compliant
	c)	the project does not result in any vehicles queuing on the public road network; and	No vehicles sighted parking or queuing on the public road system during the site visit. As there is ample space on site parking or queuing on public roads would be unlikely.	Compliant
	d)	provide direction line marking and signage on site to direct heavy vehicles, staff and visitors to the relevant parking areas, loading docks and exits to ensure safe traffic flow.	Signage, maps, mirrors, and line marking installed following the 2015 IER. Traffic management as part of the OEMP was updated to reflect changes. SafeWork reviewed in July 2018, sighted email from SafeWork dated 11/7/18.	Compliant
	38	The Proponent shall ensure that the parking dimensions, internal circulation, aisle widths, kerb splay corners, head clearance heights, ramp widths and grades of the car parking area in accordance with the current relevant	Designated car parking spaces were marked out after the 2015 IER. This was sighted during the site visit on 10 December 2018. Unable to be verified if they are marked in accordance with *AS2890.1:2004*.	Not compliant

Reference	Condition	Requirement	Evidence	Compliance Status
		Australian Standards *AS2890.1:2004*, except where amended by other conditions of this approval.	When the construction of the project extension commences car parking to be realigned to comply with AS2890. Any additional car parking will need to be in compliance with AS2890.	
	39	The Proponent shall ensure that disabled parking and assess is provided on-site and shall comply with Australian Standard *AS1428.1 (2001) - Design for Access and Mobility - Part 1 General Requirements for Access – Buildings*.	One disabled parking space sighted during the site visit including a ramp into the office. Unable to be verified if they are marked in accordance with *AS1428.1*. When the construction of the project extension commences disabled parking will be realigned to comply with AS1428.1.	Not compliant
Traffic Management	40	The Proponent shall prepare and implement a Traffic Management Plan for the project to the satisfaction of the Director-General. The plan must:	No additional stages of the project have been constructed during the audit period, therefore this condition has not been triggered. Section 8 of the outlines the sites transport code of conduct.	Not triggered
	a)	be prepared in consultation with the RTA and Council, and be submitted to the Director-General for approval prior to commencement of construction of any subsequent stage of the project;		
	b)	be prepared by a suitably qualified expert;		
	c)	detail construction and operation vehicle routes, access and parking arrangements, traffic restrictions and traffic control; and		
	d)	include a Driver Code of Conduct.		
SOIL AND WATER				
	41	Except as may be expressly provided in an EPL for the project, the Proponent shall comply with section 120 of the *POEO Act*.	There were no water pollution incidents reported during the audit period.	Compliant
	42	The Proponent shall prepare and implement an Erosion and Sediment Control Plan for the	An Erosion and Sediment Control Plan (ESCP) is provided in Appendix F of the Operational Environmental Management	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
Erosion and Sediment Control		project to the satisfaction of the Director-General. This plan must:	Plan (OEMP). This ESCP was prepared in 2003. The updated OEMP was provided to DP&E in February 2018. A review of the ESCP (Figure 3.1) during the site visit found that the erosion and sediment control devices on site are generally consistent with the ESCP. It is recommended that the ESCP figure be updated during the next three-yearly review of the OEMP.	
	a)	be submitted to the Director-General before the commencement of construction of any subsequent stage of the project;		
	b)	be prepared in accordance with Landcom's *Managing Urban Stormwater: Soils and Construction manua*l;		
	c)	identify the works that could cause soil erosion and generate sediment;		
	d)	describe the location, function, and capacity of the erosion and sediment controls that would be implemented;		
	e)	describe the measures that would be implemented to maintain these controls during the construction period.		
	43	All erosion and sedimentation controls required as part of this approval shall be maintained at design capacity for the duration of the construction works, and until such time as all ground disturbed by the construction works has been stabilised and rehabilitated so that it no longer acts as a source of sediment.	As no additional stages of the project have been commenced or constructed during the audit period this condition has not been triggered.	Not triggered
Water Demand	44	Prior to exceeding a water consumption level of 92ML/year, the Proponent shall obtain written approval from HWC that the amount required for each new Stage of the project is within the capacity able to be provided by	Water usage for the audit period is documented in the AEMRs as: • 2015/16 – 42ML • 2016/17 – 47ML • 2017/18 – 72ML.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
		HWC, to the satisfaction of the Director-General.	Water consumption did not exceed the threshold level of 92ML/year requiring written approval from HWC.	
Alternative Water Source	45	Prior to the installation of any alternative water supply infrastructure, the Proponent shall consult with, and seek the approval of Hunter Water Corporation and Council.	No alternative water supply infrastructure was installed during the audit period. The Managing Director confirmed that no alternative water supply infrastructure was been installed during the audit period.	Not triggered
Stormwater Management	46	Proponent shall prepare and implement a Stormwater Management Plan for the project to the satisfaction of the Director-General. This plan must:	Section 6.2 of the OEMP includes stormwater management. The OEMP was reviewed, updated and provided to DP&E in February 2018. As no additional stages of the project were constructed during the audit period this condition has not been triggered.	Not triggered
	a)	be prepared in consultation with Council and be submitted to the Director-General for approval prior to the commencement of construction of any subsequent stage of the project;		
	b)	be prepared in accordance with the latest version of *Managing Urban Stormwater: Council Handbook* (DECC);		
	c)	outline measures to manage stormwater to prevent the pollution of waters;		
	d)	include a program to monitor stormwater quantity and quality; and		
	e)	include detailed plans of the stormwater system.		
	47	The Proponent shall ensure that the construction and operation of the facility does not concentrate or lead to an increase in the rate of flow of stormwater discharged from	Section 6.2 of the OEMP includes Stormwater Management and outlines the strategy for project stages including modification and expansion during subsequent stages The grass swales have been designed to control surface flow velocities from runoff areas to no greater than 2 m/s. Final	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
		the site over and above the predevelopment flow conditions.	low flow stormwater discharges from the site occur at the channel outlet, located at the south eastern corner of the site. Discharged water is then connected directly to the existing artificial wetland. There was one discharge event from the stormwater basin system during the audit period, on 21 June 2018 as indicated in the 2018 AEMR. As the next stages of the project have not been commenced or constructed there has been no change to the flow of stormwater discharged from the site during the audit period.	
	48	The Proponent shall design, construct, operate and maintain all stormwater infrastructure to direct all stormwater runoff to the site's stormwater detention basins. Such stormwater infrastructure shall be capable of handling all stormwater discharges up to and including a 1 in 100 year ARI storm event.	Section 6.2 of the OEMP includes Stormwater Management and outlines the strategy for project stages including modification and expansion during subsequent stages. The site visit found that stormwater is generally directed around the operational areas on site. When stages 5 to 8 are constructed, the stormwater system will need to be upgraded according to the EA approval.	Compliant
HERITAGE				
	49	The Proponent shall cease all works on site in the event that any Aboriginal cultural object(s) or human remains are uncovered onsite. The NSW Police, the Aboriginal Community and the OEH are to be notified. Works shall not resume in the designated area until approval in writing from the NSW Police and/or the OEH has been obtained.	No Aboriginal cultural objects or human remains were reported or uncovered onsite during the audit period. The Managing Director confirmed that no Aboriginal cultural objects or human remains were reported or uncovered onsite during the audit period.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
	50	The Proponent shall ensure all reasonable and feasible measures are made to avoid impacts to Aboriginal Cultural Heritage values for the life of the project. If impacts are unavoidable, mitigation measures are to be negotiated with the Aboriginal community and the OEH.	The Managing Director confirmed that no Aboriginal cultural objects or human remains were reported or uncovered onsite during the audit period.	Not triggered
	51	The Proponent shall:	-	-
	a)	prepare an Aboriginal Cultural Education Program for the induction of personnel and contractors involved in construction and landscaping activities on site, prior to the commencement of construction of any subsequent stage of the project: and	Commission or construction of the next stages have not commenced; therefore, the condition has not been triggered.	Not triggered
	b)	undertake consultation with Aboriginal stakeholders in the event of the discovery of Aboriginal cultural object(s) throughout the construction of the project,	Commission or construction of the next stages have not commenced; therefore, the condition has not been triggered.	Not triggered
		to the satisfaction of the Director-General.	-	-
WASTE MANAGEMENT				
	52	A designated area for the storage and collection of waste and recyclable materials shall be provided at the site and shall be designed, constructed, operated and maintained in a manner so as not to cause a nuisance to adjoining properties.	The site has designated areas inside and outside the factory for reuse/recycling and disposal of waste. The site is generally in compliance with this condition, however the volume of waste tiles to be removed from the site would appear to be greater than during the previous audit during the site inspection in December 2018. It is noted that in the previous audit period there was legal action about the visual nuisance that the waste tiles provided to a neighbouring property. The Managing Director indicated that no complaints have been received during the audit period from neighbouring properties about the waste	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
			tile areas. There are two main areas on site for waste tiles. Waste tiles are periodically removed by a contractor. The NCIA Managing Director indicated that on 24/1/2019 (after a 5 week production shutdown) there is very little waste tile left on site. It is recommended that NCIA formalise a long term strategy and seek relevant approvals for waste tiles	
	53	The Proponent shall not cause, permit or allow any waste generated outside the site to be received at the site for storage, treatment, processing, reprocessing or disposal, or any waste generated at the site to be disposed of at the site, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997*.	The Managing Director indicated that no waste is received by the site and no waste is disposed on site. The site would like to recycle the waste tiles on site. To do this a crushing facility would be required. NCIA would like to process the waste tiles on site to a saleable or reusable product. NCIA have had preliminary discussions with their advisors and the DP&E and EPA. The matter has been tabled at NCIA board level and NCIA are committed to finding a long term sustainable best use It is recommended that NCIA formalise a long term strategy and seek relevant approvals for waste tiles.	Compliant
	54	All wastes generated on site during construction and operation of the project shall be classified in accordance with the *Waste Classification Guidelines, December 2009* (or later version) and disposed of to a facility that may lawfully accept the waste.	Waste generated by the site is disposed of by an appropriately licensed contractor. For example: • Dittons bulk haulage remove the waste tiles from the site. Sighted a "Lawful authority to use place as waste facility for the specified waste" tracking form which noted the weight, type, licence number and signatures (September 2018). • Cleanaway remove cardboard, recyclables and general waste. Sighted Cleanaway August 2018 invoice detailing waste removed from the site (invoice # 19616587). • Mainstream industries carry out the annual clean out the kilns and dispose of waste as part of their contract.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
HAZARDS				
	55	The Proponent shall ensure that the fuel storage tank is surrounded by a bund with a capacity to contain 110% of the largest tank within the bund. The bund(s) must be designed and installed in accordance with the requirements of the relevant Australian Standards and/or the OEH's *Environmental Protection Manual Technical Bulletin Bunding and Spill Management*.	Section 7 of the OEMP indicates that the site stores 2,400L of diesel on site contained in a 3,500L bund storage area. The bund is located inside the warehouse, which would serve as a secondary containment area should a spill occur.	Compliant
SCHEDULE 4: ENVIRONMENTAL MANAGEMENT, MONITORING AND INCIDENT REPORTING				
ENVIRONMENTAL MANAGEMENT				
Environmental Management Strategy	56	The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must:	An Operation Environmental Management Plan (OEMP) was prepared in accordance with the previous Development Consent to provide an environmental management framework for the facility. The current Project Approval does not require an OEMP, but instead requires the preparation of an Environmental Management Strategy (EMS) prior to commencement of construction works associated with development Stages 3–8. As this condition has not been triggered, NCIA continues to operate in accordance with the OEMP.	Not triggered
	a)	be submitted to the Director-General for approval prior to commencement of any construction works;		
	b)	be prepared by a suitably qualified and experienced expert;		
	c)	provide the strategic framework for environmental management of the project;		
	d)	identify the statutory requirements that apply to the project;		
	e)	describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project.		

Reference	Condition	Requirement	Evidence	Compliance Status
	f)	describe in detail the management measures that would be implemented to address environmental issues;		
	g)	describe in general how the environmental performance of the project would be monitored and managed;		
	h)	describe the procedures that would be implemented to:		
		- keep the local community and relevant agencies informed about the operation and environmental performance of the project;		
		- receive, handle, respond to, and record complaints;		
		- resolve any disputes that may arise during the course of the project;		
		- respond to any non-compliances; and		
		- respond to emergencies; and		
	i)	include copies of the various strategies and plans that are required under the conditions of this approval once they have been approved.		
Construction Environmental Management Plan	57	The Proponent shall prepare and implement a Construction Environmental Management Plan (CEMP) to outline environmental management practices and procedures to be followed during the construction of the ceramic tile manufacturing facility. The Plan shall include, but not necessarily be limited to:	As no additional stages of the project were commissioned or constructed during the audit period this condition has not been triggered.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
	a)	a description of all activities to be undertaken on the site during construction of the ceramic tile manufacturing facility, including an indication of stages of construction, where relevant;		
	b)	statutory and other obligations that the Proponent is required to fulfil during construction, including all approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies;		
	c)	detailed management measures that would be implemented to address environmental issues (i.e., noise, air quality, heritage, water, potential acid sulphate soil);		
	d)	specific consideration of measures to address any requirements of the Department, Council and the OEH during construction;		
	e)	details of how the environmental performance of the construction works will be monitored, and what actions will be taken to address identified adverse environmental impacts; and		
	f)	a description of the roles and responsibilities for all relevant employees involved in the construction of the ceramic tile manufacturing facility.		
		The CEMP shall be submitted for the approval of the Director-General prior to the		

Reference	Condition	Requirement	Evidence	Compliance Status
		commencement of construction of any subsequent stage of the project.		
ENVIRONMENTAL REPORTING				
Incident Reporting	58.	Within 24 hours of the occurrence of an incident that causes (or may cause) harm to the environment, the Proponent shall notify the Department and any other relevant agencies of the incident.	The AEMRs state that there were no reportable incidents during the audit period. However, there were exceedances of the EPL and Project Approval criteria in each year of the audit period.	Not triggered
	59	Within 7 days of the detection of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident.	The AEMRs state that there were no reportable incidents during the audit period. In 2015/16, exceedances of EPL and Project Approval criteria were not identified until preparation of the Annual Return and were therefore not reported to DP&E at the time of exceedance. Exceedances of EPL and Project Approval criteria were reported to DP&E by telephone on receipt of laboratory analysis in 2016/17 and 2017/18. Sighted an email dated 15/8/18 and 8/5/18 from the Managing Director to the EPA about annual stack testing results. NCIA received a Show Cause Notice from DP&E (correspondence dated 3 February 2017) about one exceedance of the 24-hour PM_{10} criterion and one exceedance of the fluoride load limit as reported in the 2015-2016 AEMR. DP&E indicated that a number of breaches of the Project Approval may have occurred as a result of these exceedances and failure to report these as incidents. NCIA provided a response to DP&E (AECOM, dated 17 February 2017) which outlined why these exceedances were	Not compliant

Reference	Condition	Requirement	Evidence	Compliance Status
			not considered to have caused or to be likely to cause material harm to the environment and were therefore not considered to be reportable incidents. As NCIA did not consider that these exceedances caused or would cause material harm to the environment, they were not reported as incidents in accordance with Schedule 4 Condition 58 of the Project Approval. The exceedances were duly disclosed and reported in the AEMR for that reporting period (and to the NSW EPA through the Annual Return for that period). NCIA believed that it had acted in accordance and in compliance with the incident reporting requirements of the Project Approval. DP&E accepted these representations and no further enforcement actions were taken. No breach of the conditions of consent was recorded. As agreed through further discussions with DP&E, NCIA now reports all exceedances of performance criteria to the DP&E compliance team upon receipt of verified laboratory analysis. NCIA received a Show Cause Notice via email on 8 June 2018 from the NSW EPA regarding alleged breaches of the Protection of the Environment Operations Act 1997 (POEO Act) in relation to not publishing monitoring data, exceeding the fluoride load limit and exceeding the hydrogen fluoride concentration. On the 2 August 2018, NCIA received a Penalty Notice Advice from the EPA regarding the Show Cause notice. The EPA issued NCIA with two Penalty Notices and two Official Cautions for allegedly failing to comply with various	

Reference	Condition	Requirement	Evidence	Compliance Status
			provisions of the POEO Act and the conditions of the EPL, which is an alleged breach of Section 64(1) of the POEO Act.	
ANNUAL PERFORMANCE REPORTING				
	60	Every year from the date of this approval, unless the Director-General agrees otherwise, the Proponent shall submit an Annual Environmental Management Report (AEMR) to the Director-General and relevant agencies. The AEMR shall:	An AEMR was produced for each year within the audit period. Dates of submission to DP&E: • 2016 – Sighted email from AECOM dated 28/10/2016 • 2017 – Sighted email from AECOM dated 30/10/2017 • 2018 – Sighted email from AECOM dated 30/10/2018.	Compliant
	a)	be conducted by suitably qualified team of whose appointment has been endorsed by the Director- General;	The AEMRs were prepared by AECOM on behalf of NCIA.	Compliant
	b)	be submitted within 3 months of the period being assessed by the AEMR;	The annual period being assessed ends in July each year. Quality information shows the AEMRs are submitted in October.	Compliant
	c)	identify the standards and performance measures that apply to the development;	The content of the AEMRs meet the requirement of these conditions. Section 8 of 2016 AEMR, Section 8 of 2017 AEMR and Section 7 of AEMR provide evidence of how continuous improvements in air quality and noise control are being identified and progressively implemented.	Compliant
	d)	include a summary of the complaints received during the past year, and compare this to the complaints received in previous years;		
	e)	include a summary of the monitoring results for the development during the past year;		
	f)	include an analysis of these monitoring results against the relevant:		
		• impact assessment criteria;		
		• monitoring results from previous years; and		
		• predictions in the EA;		
	g)	identify any trends in the monitoring results over the life of the development;		

Reference	Condition	Requirement	Evidence	Compliance Status
	h)	identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies;		
	i)	identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance; and		
	j)	identify continuous improvement measures, outlining new developments in air quality and noise control, and detailing practices that have been implemented on the site during the previous year, to reduce air quality and noise impacts.		
INDEPENDENT AUDIT				
	61	Every 3 years from the date of this approval, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:	This report and audit table comprises part of the audit requirements for this condition.	Compliant
	a)	be conducted by a suitably qualified, experienced, and independent team of experts whose appointment has been endorsed by the Director-General;		
	b)	be undertaken in consultation with the OEH and Council;		
	c)	include an assessment of the noise and air quality performance of the project;		
	d)	assess the environmental performance of the project and undertake any works necessary to determine whether it is complying with the		

Reference	Condition	Requirement	Evidence	Compliance Status
		relevant standards, performance measures, and statutory requirements;		
	e)	review the adequacy of any strategy/plan/program required under this approval; and, if necessary,		
	f)	Recommend measures or actions to improve the environmental performance of the project, and/or any strategy/plan/program required under this approval.		
	62	Within 6 weeks of completing this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General with a response to any recommendations contained in the audit report	Noted	-
	63	Within 3 months of submitting an audit report to the Director-General, the Proponent shall review and if necessary revise the strategy/plans/programs and undertake additional mitigation measures as required under this approval to the satisfaction of the Director-General	Noted	-
ACCESS TO INFORMATION				
	64	Within 3 months of the approval of any strategy/plan/program required under this approval (or any subsequent revision of these strategies/plans/programs), or the completion of the audits or annual reports required under this approval, the Proponent shall:	NCIA Managing Director sends, and / or delegates responsibility to AECOM for delivery of the updated documents to DP&E within the designated timeframes. For example: • OEMP dated 23/2/2018 was provided to DP&E on 26/2/18 by AECOM (email sighted). • AEMR dated 30/10/2018 was provided to DP&E by AECOM on 30/10/2018 (email sighted). Acceptance from DP&E on 27/11/18 sighted. • IEA report finalised October 2015 and emailed to DP&E 27/10/15 (email sighted).	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
	a)	provide a copy of the relevant documents/data to the relevant agencies; and	NCIA delegated to AECOM for the provision of relevant documents / data to the relevant agencies.	
	b)	make the documents publicly available in an appropriate electronic format on the Proponent's web site, should one exist. If a web site does not exist, the documents are to be made available upon request.	A penalty notice (ref 3173526061) from the EPA was received on 2/8/18 related to not publishing of pollution monitoring results within 14 days of receiving the monitoring result. The AEMRs, monthly ambient monitoring results, OEMP, EPA licence and 2015 IEA are available on the NCIA website (Sustainability).	Compliant
APPENDIX 1: NCIA's STATEMENT OF COMMITMENTS				
Air Quality Construction		A Construction Environmental Management Plan (CEMP) would be prepared prior to commencement of construction of the project. The CEMP would include as a minimum:	As no additional stages of the project have been commissioned or constructed during this audit period this condition has not been triggered.	Not triggered
		• Control of access via sealed roadways;		
		• Vehicle speed limits on site;		
		• Avoid dust generating activities during undesirable conditions;		
		• Minimisation of areas of disturbed soils during construction;		
		• Dust suppression with water sprays or other media during windy periods (as required);		
		• Stockpiling of soils on site kept to a practical minimum;		

Reference	Condition	Requirement	Evidence	Compliance Status
		• Construction equipment idling time minimisation and appropriate engine tuning and servicing to minimise exhaust emissions; and		
		• Procedures to address any complaints received.		
Operation		NCIA commits to the stringent air emissions concentration limits required of the approved facility for the project as detailed in the existing development consent as modified. Additionally:	-	
		• Dust extraction baghouses would be integrated with the kiln stacks;	Pipework and baghouse for the kiln sighted during site visit 10/12/18.	Compliant
		• Fluoride emissions would be managed within the kiln baghouses by implementing a mechanism where a fine spray of lime is injected into the kiln exhaust flow to scrub the HF emissions;	The Managing Director advised that lime has not been injected into the kiln exhaust during this audit period. Lime injection will commence again when the baghouse is upgraded at the end of 2018	Not compliant
		○ Lime used in the baghouse would have a high percentage of Calcium available for scrubbing of HF;	No lime has been purchased or used during this audit period.	Not triggered
		○ Installation of additional monitoring points to monitor baghouse operational parameters e.g. pressure drop to allow more efficient tracking of the performance of the baghouses; and	No new additional monitoring points during this audit period. Additional monitoring points will be included as part of the continued baghouse upgrade during the shutdown period at the end of 2018.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
		○ All new production lines will have kiln stack filtration systems positioned internally to the buildings. The aim of this is to ensure more efficient management of the emissions.	New production line not constructed.	Not triggered
		• Dust extraction baghouses would be integrated with the spray dryers;	Dust extractors for spray dryers are shown on Figure 4 of the OEMP. Sighted during site visit 10/12/18.	Compliant
		• Fabric filters would also be implemented on the extraction fans located adjacent to the selection line;	Managing Director indicated that fabric filters are used on the extraction fans located next to the selection line. Sighted during site visit 10/12/18.	Compliant
		• NCIA would continue their vegetation monitoring program as required by their existing consent and Environment Protection Licence; and	Sections 4.1.2, 4.1.3, 4.2 and 5.2 of 2016 and 2017 AEMR, and sections 4.1.4, 4.1.5, 4.2 and 5.2 of 2018 AEMR demonstrate the continued implementation of the vegetation monitoring program.	Compliant
		• The clay preparation area would be located inside the factory building.	The clay preparation plant is located inside the current factory warehouse footprint. Sighted during site visit 10/12/18.	Compliant
Greenhouse Gas and Energy Efficiency		• An Energy Savings Action Plan would be prepared;	The OEMP states that preparation of an ESAP was initiated; however, following consultation with the Department, involvement with the Energy Efficiency Opportunities program was recommended and pursued as an appropriate alternative. As agreed with the Department, NCIA opted out of the program due to the low level of emissions from the facility. The EEO program is now closed.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
		• New generation kilns would be installed that incorporate new energy recovery systems; and	No new kilns have been installed during the audit period. New kilns will be installed in the next stages when constructed.	Not triggered
		• The project would be designed to allow for the addition of electricity cogeneration facilities by way of leaving space and allowing for easy connection and integration at a later date.	There are areas available on site for this to be considered in the future by NCIA. As the next stages have not been commissioned or constructed this SoC has not been triggered	Not triggered
Noise		• The project would commit to and adopt the operational noise criteria outlined in the EA and the Submissions Report;	NCIA operates to the EPA licence requirements. Noise will be reviewed as outlined in the EA when the next stages of the project are constructed.	Compliant
		• Increased thickness of metal sheeting to O.48 BMT on the east façade, south façade and roof (previous assumption in noise model was 0.3 BMT) with 55 mm insulation fixed to underside of roof;	Not triggered as the next stages have not been commissioned or constructed.	Not triggered
		• Existing dust extractor to be enclosed;	The existing dust extraction system is located inside the warehouse and includes enclosed pipework and baghouse.	Compliant
		• Alsynite roofing on the proposed main building located only on the west section of the roof. This is assuming the roof is pitched and therefore the alsynite panelling is angled away from Heritage Green receivers to the east;	Not triggered as the next stages have not been commissioned or constructed.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
		• No alsynite panels on the east and south walls of the proposed Mill & Pray Dryer section of the building;	Not triggered as the next stages have not been commissioned or constructed.	Not triggered
		• No truck deliveries of raw products or final product or final product despatch would occur during the night time period (night-time 10.00 pm to 7.00 am);	The Managing Director advised that the: • Operation is 24 hours 7 days a week • The loader driver is onsite 7am-7pm for incoming truck delivers • Forklift truck loading operators commence work at 5am capturing stock from the night before and picking loads prior to truck loading commencing at 7am • No construction activities have been undertaken outside of allowable time. The EPA licence has the same hours of operation and construction as stipulated for this condition. A copy of the EPA Licence is included as an appendix to the OEMP.	Compliant
		• Electric, laser guided forklifts would be utilised to transport final product from the proposed factory building to the product despatch area of the existing building;	Electric, laser guided forklifts used on the factory floor and warehouse area. Not currently used in the despatch area.	Compliant
		• The transport route for both forklifts and delivery/product despatch truck would be designed to minimise the need for reversing and, as such, the use of reversing alarms;	Not triggered as the next stages have not been commissioned or constructed. For the current factory trucks are loaded in the despatch area and reverse out with the load.	Not triggered
		• The baghouses for the proposed kiln stacks would be located inside the proposed factory building; and	Not triggered as the next stages have not been commissioned or constructed. Current baghouses are located inside the warehouse.	Not triggered
		• The proposed dust extraction unit, located on the southern end of the	Not triggered as the next stages have not been commissioned or constructed.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
		eastern wall of the proposed factory building, would be enclosed to reduce noise emission to the east and south.		
Traffic and Parking		• The onsite car parking would be increased to 70 spaces to ensure adequate provision is provided for all staff and visitors and all new spaces would be provided in accordance with AS2890.	There are currently 44 car parking spaces are available in the car parking area near the office / showroom. This includes one disabled car park. As the nest stages has not been constructed this condition has not been triggered.	Not triggered
Hazard and Risk		• The existing site emergency plan would be updated as required to include potential incidents at the expanded facility, including gas releases/fires and diesel releases/fires; and	The Emergency Plan and Pollution Incident Response Management Plan were reviewed as part of the review of the OEMP in 2018. The Pollution Incident Response Management Plan includes consideration of gas releases/fires and diesel releases/fires.	Compliant
		• Fuel handling management procedures would be included in the revised site Operational Environmental Management Plan.	Prevention/protection measures for fuel spills as possible consequence of diesel dispensing and loading, process equipment and lubricating oil storage are provided in Appendix B Emergency situation analysis of the OEMP. Appendix E of the OEMP provides Emergency Procedures, including for the possibility of fuel spills. Pre-emptive actions are also included in the Pollution Incident Response Management Plan (Appendix H of the OEMP).	Compliant
Soil and Water		• Wet detention basins would be provided with the dual function of reducing peak stormwater flows and improving water quality by settling of sediment prior to discharge;	Four wet detention basins are provided, connected by grass swales and a series of pits and pipes.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
		• Rainwater tanks would be provided with the function of reducing peak stormwater flows;	Two rainwater tanks are used on site, which are located outside the clay bunkers. Water from the rainwater tanks are used in the processing on site. The system will be expanded during the next stages of the project to include more rainwater tanks.	Compliant
		• Grass swales to collect runoff from beside roadways, to connect between the wet detention basins, to reduce runoff velocities, to provide some infiltration of water, and for water quality improvement;	Grass swales service surface water flows from roof, roadway and landscaped areas as part of the stormwater management strategy.	Compliant
		• Ground area disturbed would be minimised at any one time during construction and progressive rehabilitation/ landscaping of completed areas.	As no additional stages of the project have been constructed during this audit period this SoC has not been triggered.	Not triggered
		• The volume of water required to be handled would be minimised by diverting clean water around all disturbed areas;	Operational water and water from the current factory warehouse roof is directed into the detention ponds for reuse. All other stormwater is directed into offsite drainage lines. Two rainwater tanks on site. This same process will be used for any additional buildings as part of the next stages.	Compliant
		• The surface of all areas required for construction traffic, parking, storage and amenities would be treated to provide adequate drainage and prevent soil loss;	As no additional stages of the project have been constructed during this audit period this SoC has not been triggered.	Not triggered
		• Provision of sedimentation traps and fencing to capture and treat runoff	As no additional stages of the project have been constructed during this audit period this SoC has not been triggered.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
		from all disturbed areas would be provided, including a regime for inspection and removal of accumulated sediment;		
		• Storage of potential contaminants (i.e. fuels, oils or chemicals) would occur offsite or within bunded, covered and lines areas;	As no additional stages of the project have been constructed during this audit period this SoC has not been triggered. Diesel is currently stored on site in a bunded area as outline din the OEMP.	Not triggered
		• The construction and operation of the project would not concentrate or lead to an increase in the rate of flow of stormwater discharged from the site over and above the predevelopment flow conditions;	As no additional stages of the project have been constructed during this audit period this SoC has not been triggered. Stormwater is currently directed around the site away from operational areas or captured in rainwater tanks and reused.	Not triggered
		• An Acid Sulfate Soils Management Plan (ASSMP) would be prepared in accordance with the Acid Sulfate Soil Planning Guidelines (NSW Acid Sulfate Soils Management Committee, 1998) prior to the construction of Stages Five – Eight; and	As no additional stages of the project have been constructed during this audit period this SoC has not been triggered.	Not triggered
		• The preliminary Soils and Water Management Plan and Erosion and Sediment Control Plan (Appendix D of the Submissions Report) would be generally followed and implemented during construction and operation.	An ERSCP is provided in Appendix F of the OEMP. The OEMP is reviewed every three years, most recently in 2018. The principals of the ESCP was found to be implemented during the site visit.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
Visual		• Planting of native vegetation around the perimeter of the site would be undertaken in locations unaffected by buildings, internal road ways or infrastructure easements to assist in screening outside views;	Planted along the northern boundary and office area occurred in 2017. Further plantings will be carried out during the next stages.	Compliant
		• The use of appropriate building materials and colours to blend with the surrounding environment and reduce the visual dominance of the building;	Extension of the current warehouse footprint in 2017 used similar materials to the current warehouse. As no additional stages of the project have been constructed during this audit period this SoC has not been triggered.	Compliant
		• Lights would be placed and designed to avoid causing glare or excessive light spillage on neighbouring sites;	Current lighting on site appears to be mounted and directed to not cause a nuisance off site. This was not confirmed during the site visit. The Managing Director indicated that no complaints about lighting have been received during the audit period.	Compliant
		• Lighting near adjoining properties where appropriate would be shielded with cut off luminaries;	Lighting on site appears to be mounted and directed to not cause a nuisance off site. This was not confirmed during the site visit. The Managing Director indicated that no complaints about lighting have been received during the audit period.	Compliant
		• Building illumination would be discrete;	Lighting on site appears to be mounted and directed to not cause a nuisance off site. This was not confirmed during the site visit. The Managing Director indicated that no complaints about lighting have been received during the audit period.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
		• Lighting to car park areas and for security purposes would be low intensity; and	The Managing Director indicates that the lighting in the car park area is not very bright. Site lighting appear to be angled down to avoid unnecessary light spill.	Compliant
		• The updated Landscape Management Plan will include details of onsite lighting.	The Landscape Management Plan is to be updated when the next stage of the project progresses. No additional stages have been constructed during this audit period therefore this SoC has not been triggered.	Not triggered
Ecology		• NCIA would continue its vegetation monitoring program for fluoride as required by their existing consent and EPL; and	Vegetation monitoring for the audit period is documented in the AEMRs. NCIA's operations on vegetation surrounding the facility is monitored through assessment of fluoride impacts on local vegetation. There are no limits or criteria set out in the EPL or Project Approval by which to assess compliance. The 2010 EA does not specifically discuss fluoride impact on vegetation and therefore no predictions are available for comparison. Instead, the assessments are used to provide an indication of trends in fluoride injury and concentrations at set locations surrounding the facility and for a suite of species.	Compliant
		• NCIA would finalise their onsite revegetation generally in accordance with Figure 4 of the EA and as described in Section 14.1.3 of the EA.	As no additional stages have been commissioned or constructed during the audit period this SoC has not been triggered.	Not triggered
Aboriginal Heritage		• Even though no areas or objects of Aboriginal cultural heritage significance have been identified within the project site, there still remains the potential (albeit very low) that there may be Aboriginal cultural objects below the ground surface. Agreed management	No record of unexpected finds during the audit period. There have not been any additional stages of the project constructed during this time therefore this SoC has not be triggered.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
		procedures for unexpected finds (identified in the EA and the Submissions Report) will provide an effective way to minimise project impacts on unrecorded Aboriginal cultural heritage. Procedures for the Discovery of Archaeological Deposits and the Discovery of Human Remains are detailed in Section 14.3.1 of the EA (and refined in Section 2.1.6. of the Submissions Report) and would be implemented during the Project.		
Environmental Monitoring		• NCIA would continue their vegetation monitoring program as required by their existing consent and EPL; and	Vegetation monitoring for the audit period is documented in the AEMRs.	Compliant
		• NCIA would negotiate with DECCW and DOP an appropriate Environmental Monitoring program.	NCIA carries out environmental monitoring according to the OEMP and EPA licence. The OEMP is approved by DP&E. The EPA issues the EPA licence and reviews the AEMRs and monitoring results.	Compliant
Environmental Management and Reporting		• The existing site OEMP and environmental management plans would be reviewed, modified and updated to include the project; and	As no additional stages of the project have progressed therefore plans have not been updated and this SoC has not been triggered.	Not triggered
		• NCIA would continue with its environmental reporting and auditing requirements as specified in the existing development consent (where possible).	NCIA carries out environmental reporting using AEMRs, annual returns and IEAs as required by the development consent. NCIA received a penalty notice from EPA for not providing monitoring data publicly available. This information is now available on the NCIA website.	Compliant
2015 AUDIT RECOMMENDATIONS				

Reference	Condition	Requirement	Evidence	Compliance Status
S2.14	-	2.14.1. NCIA must pay to Council an annual contribution of 4.1 cents per kilometre per tonne of product (adjusted for inflation) trucked from the site along Racecourse Road to its intersection with the New England Highway from the date of DA 09_0006 (19 January 2012).	See Condition of Approval 14, NCIA have paid annual contributions to council during the audit period.	Compliant
S3.15	-	3.15.1. It is recommended that future AEMRs include the necessary inferred compliance calculations (that is, comparison between in stack concentrations and modelled in-stack emissions rates in 2010 EIS).	A comparison of the in-stack concentrations and modelled in-stack emissions rates in 2010 EIS is provided in the AEMRs: - 2016 AEMR, Table 14 - 2017 AEMR, Table 14 - 2018 AEMR, Table 5-2.	Compliant
S3.16	-	3.16.1. (Repeat of L2.2.1) Future AEMRs should include verification that the actual load of an assessable pollutant has been calculated in accordance with the relevant load calculation protocol, which should be referenced. Table 13 in the AEMRs should be changed to show the correct Project Approval Limits for sulfur oxides and nitrogen oxides.	Relevant load calculation protocols applicable are cited in Section 5.4 of the 2016, 2017 and 2018 AEMRs, although the approach applied (i.e. source monitoring - periodic monitoring) is not explicitly stated. It is recommended that future AEMRs include reference to the specific load calculation methodology (including input data) from within the Load Calculation Protocol for ceramics production that has been applied.	Compliant
S3.17	-	3.17.1. It is recommended that when the OEMP is replaced by an Environmental Management Strategy (prior to the commencement of any construction works) as required by Schedule 4 Condition 57 of this Approval, wording in a “Transport Code of Conduct” or similar section includes a	As no additional stages of the project have been commissioned or constructed during this audit period this recommendation has not be triggered. Apply recommendation when the OEMP is replaced by an environmental management strategy.	Not triggered

Reference	Condition	Requirement	Evidence	Compliance Status
		requirement for all loads of bulk granular material delivered to the site to be covered in accordance with the “Load Restraint Guide”.		
S3.18	-	3.18.1 The terminology in the NCIA Emissions Testing Reports in future should refer to EPL 3, not EPL 2, and the second listing of EPL 10 in Table 4 should reference EPL 12 Spray Dryer (SD1).	Table 18 of AEMR 2016 advises that these changes were made in the 2016/2017 emissions testing report.	Compliant
S3.28	-	3.28.1 NCIA should attempt to locate the Stage 1 Noise Validation Report.	The NCIA Managing Director indicated that they have tried to locate the Stage 1 Noise Validation Report following the 2015 IER. This report was unable to be located.	Not compliant
S3.32	-	3.32.1 NCIA should either review the construction contract for the facility to assess if lighting was required to be installed in accordance with AS 4282:1997; or if this information is not available or is inconclusive, commission a qualified lighting expert to undertake a survey or audit of the outdoor lighting against AS 4282:1997 to verify its compliance.	No documentation could be provided to verify that lighting complies with the latest Australian Standards. Lighting on site appears to be mounted and directed to not cause a nuisance off site. This was not confirmed during the site visit. The Managing Director indicated that no complaints about lighting have been received during the audit period.	Not compliant
S3.37	-	3.37.1 NCIA should prepare a written instruction that is issued to each contract driver that no vehicles associated with the project are parked on the public road system at any stage, or that vehicles queue on the public road network. This could be done through the Transport Code of Conduct in Section 9 of the OEMP which should be revised to reflect current site requirements	Section 8 of the OEMP (Transport Code of Conduct) now includes a statement that ‘No vehicles associated with the operation of the facility are to park or queue on the public road network (Rutherford Road and Kyle Avenue)	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
		and be provided to all employees, contractors and contract drivers.		
S3.37	-	3.37.2 A traffic risk assessment should be conducted on site to determine if, and if so where, direction line marking and signage should be provided on site to direct heavy vehicles, staff and visitors to the relevant parking areas, loading docks and exits to ensure safe traffic flow.	Signage, maps, mirrors, and line marking installed following the 2015 IER. Traffic management as part of the OEMP updated to reflect changes. SafeWork reviewed in July 2018, sighted email from SafeWork dated 11/7/18.	Compliant
S3.38	-	3.38.1 To comply with this condition, NCIA must provide markings in accordance with Australian Standard AS2890.1:2004.	Designated car parking spaces were marked out after the 2015 IER. This was sighted during the site visit on 10 December 2018. Unable to be verified if they are marked in accordance with *AS2890.1:2004*.	Not compliant
S3.39	-	3.39.1 To comply with this condition, NCIA must provide markings in accordance with Australian Standard AS1428.1:2001.	One disabled parking space sighted during the site visit including a ramp into the office. Unable to be verified if they are marked in accordance with *AS1428.1*.	Not compliant
S3.52	-	3.52.1 NCIA should ensure that waste tiles are stored within only the designated concrete bunker and that there are procedures in place, including daily inspections, to determine when a contractor should be required to remove waste tiles. Daily inspections should be documented.	Waste tiles are located within and next to the designated waste tile area. Waste tiles are periodically removed from the site by a contractor. The NCIA Managing Director indicated that on 24/1/2019 (after a 5 week production shutdown) there is very little waste tile left on site. The Managing Director has discussed waste tiles and storage areas with the DP&E and EPA. Sighted email and memorandum dated 24/4/18 to DP&E seeking confirmation that the proposed crushing plant would comply with the current approval. DP&E responded indicating that a separate approval for a crushing facility would be required. EPA site inspection in mid-2018. EPA were open to reuse option using a crushing facility on site. Managing Director continuing to progress planning approval pathway for this to occur to	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
			manage the waste tiles. NCIA would like to process the waste tiles on site to a saleable or reusable product. NCIA have had preliminary discussions with their advisors and the DP&E and EPA. The matter has been tabled at NCIA board level and NCIA are committed to finding a long term sustainable best use. It is recommended that NCIA formalise a long term strategy and seek relevant approvals for waste tiles.	
S3.55	-	3.55.1 The Emergency Plan should be revised if necessary to incorporate the use of any spill prevention measures established for the diesel tank.	The Emergency Plan includes prevention / protection measures relating to diesel dispensing and loading.	Compliant
S4.58	-	4.58.1 It is recommended that the Draft Emergency Plan be finalised and its requirements (e.g. for training) be implemented. The Emergency Plan should reference the PIRMP which could be included as an Appendix. The Notifications in the Emergency Plan should include, or make reference to, Table 2 in the PIRMP.	The Emergency Plan has been reviewed and finalised (23 February 2018). A gas leak simulation was carried out on 21/9/18. Email sighted 21/9/18 outlining type of test and areas for improvement. Updated emergency response plan on display. Records of training retained in file sharing folder. A cross reference to the appropriate section in the PIRMP has been included in relation to notifications.	Compliant
S4.59	-	4.59.1 See 4.60.1.	-	-
S4.60	-	4.60.1 NCIA regarded a waste storage incident that led to litigation and mediation in 2012 with the adjacent property owner, McCloy Group, as a legal issue and therefore did not report it as an incident or a complaint and did not reference it in the AEMR for 2012. NCIA and its consultants should ensure that all incidents and complaints that relate to actual or potential pollution are recorded as	Table 3-1 of the 2018 AEMR indicates that no complaints have been recorded or reported to the authorities for this audit period.	Compliant

Reference	Condition	Requirement	Evidence	Compliance Status
		such, reported to the appropriate authorities, and included in the AEMR.		
S4.64	-	4.64.1 It is recommended that as a matter of urgency NCIA provide copies on their website of every approved strategy, plan or program required under this approval (or any subsequent revision of these strategies, plans or programs), or the audits or annual reports required under this approval. This should cover the period of this approval, that is, from 19 January 2012 to the present. This information should be kept up to date.	The OEMP, AEMRs, 2015 IER, annual returns, monitoring results, EPL and Pollution Incident Management Response Plan are provided on the NCIA website.	Compliant
S4.64		4.64.2 A procedure should be prepared and implemented to ensure that this condition is complied with in the future.	Table 4 in Section 4.3 of the OEMP outlines roles and responsibilities including that the Managing Directors responsibility for providing relevant information to DP&E and making it publicly available. NCIA delegates the provision of relevant documents/data to the relevant agencies to AECOM (refer to Condition of Approval 64 above). This information is also available on their website.	Compliant

Appendix B. Department of Planning and Environment Audit Team Endorsement

Collings, Kim

From: Horn, Peter
Sent: Monday, 19 November 2018 12:52 PM
To: Heidi Watters; cschneider@ncia.com.au
Cc: Joel Curran; Leah Cook; Collings, Kim
Subject: RE: Potential conflict_ NCIA IEA

Thanks Heidi, we appreciate the quick turnaround on the approval.
Peter

Peter Horn | Jacobs | Technical Director – Environmental Management & Auditing
BIAF-APACME-Eastern-WES |+61 2 4979 2658 | Peter.Horn@jacobs.com | www.jacobs.com

---

From: Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>
Sent: Monday, November 19, 2018 12:23 PM
To: Horn, Peter <Peter.Horn@jacobs.com>; cschneider@ncia.com.au
Cc: Joel Curran <Joel.Curran@planning.nsw.gov.au>; Leah Cook <Leah.Cook@planning.nsw.gov.au>; Collings, Kim <Kim.Collings@jacobs.com>
Subject: [EXTERNAL] RE: Potential conflict_ NCIA IEA

Hi Peter

Please find attached a letter endorsing Kim Collings as Lead Auditor for the upcoming NCIA IEA.

The letter also includes an extension to the date of the site inspection to 10 December 2018.

Please call myself or Joel if you have any further queries.

regards

Heidi Watters
A/Team Leader Compliance
Planning Services
Suite 14, Level 1, 1 Civic Ave | Singleton NSW 2330
T 02 6575 3401 M 0472 820 374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From: Horn, Peter <Peter.Horn@jacobs.com>
Sent: Saturday, 17 November 2018 10:12 AM
To: cschneider@ncia.com.au; Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>
Cc: Joel Curran <Joel.Curran@planning.nsw.gov.au>; Leah Cook <Leah.Cook@planning.nsw.gov.au>; Collings, Kim <Kim.Collings@jacobs.com>; Bowden, Aaron <Aaron.Bowden@jacobs.com>; Lean, Bruce <Bruce.Lean@jacobs.com>
Subject: RE: Potential conflict_ NCIA IEA

Hi Heidi,

To address the conflict I have in the lead auditor role for the NCIA audit, Jacobs propose replacing me with Kim Collings.
Kim is our Newcastle Office Manager and a Principal Environmental Scientist with extensive approvals experience, she has held lead auditor roles in a number of projects and directed or taken part in a large number of other auditing projects and programs. Kim has also worked on the industry side in the role of HSE lead for Southcorp Wines and Steggles/Goodman Fielder.
Kim has had no involvement with the development of the NCIA facility nor its operation since construction. To be clear:

> Kim Collings, the proposed lead auditor certifies:
> She is not related to any owner or operator of the Tile factory or NCIA nor does she have any current relationship with the Tile factory or its owners through:
> - Employment.
> - Business.
> - Family relationships.
> - Contractual relationships (excluding any contract related to the audit and the previous contracts declared below).
> - Do not share a common employer.
>
> She does not have any pecuniary interest in the development (or parent company) including:
> - There is no likelihood of or expectation of financial gain or loss to the auditor, or to a person to whom the auditor is closely related because of the audit findings and process;
> - They have not provided services to the development to the extent that they would be auditing work done by themselves or their business; or

We believe Kim is ideal for the lead auditor role.
Please let me know if you do not find her acceptable and we will put forward another candidate from our Sydney office.

Kind Regards
Peter

Peter Horn | Jacobs | Technical Director – Environmental Management & Auditing
BIAF-APACME-Eastern-WES |+61 2 4979 2658 | Peter.Horn@jacobs.com | www.jacobs.com

---

From: Leah Cook <Leah.Cook@planning.nsw.gov.au>
Sent: Friday, November 16, 2018 9:15 AM
To: Horn, Peter <Peter.Horn@jacobs.com>; cschneider@ncia.com.au
Cc: Heidi Watters <Heidi.Watters@Planning.nsw.gov.au>; Joel Curran <Joel.Curran@planning.nsw.gov.au>
Subject: [EXTERNAL] RE: Potential conflict_ NCIA IEA

Hi Peter and Chris
After discussion with Peter this morning I think it is best if Peter is not involved in the upcoming IEA of NCIA. However, I have suggested that Jacobs may be able to still fulfil the PO raised by seeking endorsement of an alternate lead auditor who can demonstrate independence from this project.

The alternate option is for NCIA to engage an alternate auditor and seek the endorsement of a new company/auditor.
Please advise your preferred option and seek endorsement before proceeding with the audit.

Regards,
Leah

Please note that I am on leave after today, and Heidi Watters will be acting in my absence.

Leah Cook
Team Leader - Compliance
Department of Planning & Environment
Suite 14, Level 1, 1 Civic Av
PO Box 3145
Singleton NSW 2330
http://www.planning.nsw.gov.au
E: leah.cook@planning.nsw.gov.au
compliance@planning.nsw.gov.au
P: 02 6575 3403 **M:** 0429 191 164


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From: Horn, Peter <Peter.Horn@jacobs.com>
Sent: Friday, 16 November 2018 8:30 AM
To: Joel Curran <Joel.Curran@planning.nsw.gov.au>
Cc: DPE PSVC Compliance Mailbox <compliance@planning.nsw.gov.au>; Ann Hagerthy <Ann.Hagerthy@planning.nsw.gov.au>; Chris Schneider <cschneider@ncia.com.au>
Subject: Potential conflict
Importance: High

Hi Joel,

I have been approved by DP&E as lead auditor on the National Ceramic Industries Australia(MP 09_0006) audit of the Rutherford Factory (approval letter from DP&E dated 24-10-18).
It has come to my attention that I had a peer review role on the OEMP for NCIAs Rutherford Facility back in 2011. I have had no other roles with NCIA since.
I feel the DP&E need to consider whether this has any impact on my independence as lead auditor.
We are due on site shortly so your considered answer as a priority would be appreciated.

Regards
Peter

Peter Horn
Jacobs
Technical Director – Environmental Management & Auditing | BIAF-APACME-Eastern-WES
Ph : +61 2 4979 2600
Direct : +61 2 4979 2658
Mob : +61 428 282 751
E-mail : Peter.Horn@jacobs.com

710 Hunter St
Newcastle West NSW 2302
Australia
www.jacobs.com

NOTICE - This communication may contain confidential and privileged information that is for the sole use of the intended recipient. Any

Appendix C. Consultation

Collings, Kim

From: Joel Curran <Joel.Curran@planning.nsw.gov.au>
Sent: Monday, 10 December 2018 8:53 AM
To: Collings, Kim
Cc: Leah Cook
Subject: [EXTERNAL] RE: IEA - National Ceramic Industries Australia

Kim

Apologies for the delay. Other than compliance with air emissions limits, nothing has been identified for particular attention.

Regards

Joel Curran
Compliance Officer
Northern Region
NSW Department of Planning and Environment
PO Box 1226 | NEWCASTLE NSW 2300
P 02 4904 2702
M 0412 323 331
E joel.curran@planning.nsw.gov.au

From: Collings, Kim <Kim.Collings@jacobs.com>
Sent: Wednesday, 5 December 2018 4:06 PM
To: Joel Curran <Joel.Curran@planning.nsw.gov.au>
Subject: IEA - National Ceramic Industries Australia

Dear Joel,

Jacobs are conducting an Independent Environmental Audit (IEA) of the National Ceramic Industries Australia (NCIA) facility at Rutherford in NSW. I will be the Lead Auditor for this audit.
The IEA is required to satisfy the Project Approval 09-0006 (National Ceramic Industries Australia Tile Manufacturing Facility Expansion Project) Schedule 2, Conditions 61, 62 and 63 that require an IEA by the end of 2014 and every three years thereafter.

The site inspection portion of the audit is programmed for the period 10-12-18. As such, I would appreciate any feedback you have as soon as you are able to support the audit.

Your agency/organisation is listed to be consulted in the DP&E Independent Audit Requirements (NSW Department of Planning and Environment).

Could you please provide some comments on issues your agency /organisation has identified with the NCIA facility, it's operation, stakeholder interaction or community consultation.

If you have any specific areas of interest that you would like explored in the audit, please note those too.

If you would prefer to have your input kept confidential, please call on 0429 303 440 and the queries will be assessed in the audit but not attributed to you or your organisation.

Kind Regards

Kim

Kim Collings | Jacobs | Principal – Environment, Newcastle Office Manager | APACME Buildings, Infrastructure & Advanced Facilities | +61 2 4979 2645 | +61 42 9303440 | Kim.Collings@jacobs.com | www.jacobs.com

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Collings, Kim

From: Collings, Kim
Sent: Wednesday, 5 December 2018 4:07 PM
To: leah.cook@planning.nsw.gov.au
Subject: IEA - National Ceramic Industries Australia

Tracking: **Recipient**

leah.cook@planning.nsw.gov.au

Dear Leah,

Jacobs are conducting an Independent Environmental Audit (IEA) of the National Ceramic Industries Australia (NCIA) facility at Rutherford in NSW. I will be the Lead Auditor for this audit.
The IEA is required to satisfy the Project Approval 09-0006 (National Ceramic Industries Australia Tile Manufacturing Facility Expansion Project) Schedule 2, Conditions 61, 62 and 63 that require an IEA by the end of 2014 and every three years thereafter.

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If you have any specific areas of interest that you would like explored in the audit, please note those too.

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Kind Regards

Kim

Kim Collings | Jacobs | Principal – Environment, Newcastle Office Manager | APACME Buildings, Infrastructure & Advanced Facilities | +61 2 4979 2645 | +61 42 9303440 | Kim.Collings@jacobs.com | www.jacobs.com

Collings, Kim

From: Collings, Kim
Sent: Wednesday, 5 December 2018 4:08 PM
To: www.epa.nsw.gov.au
Subject: IEA - National Ceramic Industries Australia

Tracking: **Recipient**

www.epa.nsw.gov.au

Dear Mathew,

Jacobs are conducting an Independent Environmental Audit (IEA) of the National Ceramic Industries Australia (NCIA) facility at Rutherford in NSW. I will be the Lead Auditor for this audit.

The IEA is required to satisfy the Project Approval 09-0006 (National Ceramic Industries Australia Tile Manufacturing Facility Expansion Project) Schedule 2, Conditions 61, 62 and 63 that require an IEA by the end of 2014 and every three years thereafter.

The site inspection portion of the audit is programmed for the period 10-12-18. As such, I would appreciate any feedback you have as soon as you are able to support the audit.

Your agency/organisation is listed to be consulted in the DP&E Independent Audit Requirements (NSW Department of Planning and Environment).

Could you please provide some comments on issues your agency /organisation has identified with the NCIA facility, it's operation, stakeholder interaction or community consultation.

If you have any specific areas of interest that you would like explored in the audit, please note those too.

If you would prefer to have your input kept confidential, please call on 0429 303 440 and the queries will be assessed in the audit but not attributed to you or your organisation.

Kind Regards

Kim

Kim Collings | Jacobs | Principal – Environment, Newcastle Office Manager | APACME Buildings, Infrastructure & Advanced Facilities | +61 2 4979 2645 | +61 42 9303440 | Kim.Collings@jacobs.com | www.jacobs.com

Collings, Kim

From: Collings, Kim
Sent: Wednesday, 5 December 2018 4:09 PM
To: stephen.askew@hunterwater.com.au
Subject: IEA - National Ceramic Industries Australia

Tracking: **Recipient**

stephen.askew@hunterwater.com.au

Dear Stephen,

Jacobs are conducting an Independent Environmental Audit (IEA) of the National Ceramic Industries Australia (NCIA) facility at Rutherford in NSW. I will be the Lead Auditor for this audit.

The IEA is required to satisfy the Project Approval 09-0006 (National Ceramic Industries Australia Tile Manufacturing Facility Expansion Project) Schedule 2, Conditions 61, 62 and 63 that require an IEA by the end of 2014 and every three years thereafter.

The site inspection portion of the audit is programmed for the period 10-12-18. As such, I would appreciate any feedback you have as soon as you are able to support the audit.

Your agency/organisation is listed to be consulted in the DP&E Independent Audit Requirements (NSW Department of Planning and Environment).

Could you please provide some comments on issues your agency /organisation has identified with the NCIA facility, it's operation, stakeholder interaction or community consultation.

If you have any specific areas of interest that you would like explored in the audit, please note those too.

If you would prefer to have your input kept confidential, please call on 0429 303 440 and the queries will be assessed in the audit but not attributed to you or your organisation.

Kind Regards

Kim

Kim Collings | Jacobs | Principal – Environment, Newcastle Office Manager | APACME Buildings, Infrastructure & Advanced Facilities | +61 2 4979 2645 | +61 42 9303440 | Kim.Collings@jacobs.com | www.jacobs.com

Collings, Kim

From: Collings, Kim
Sent: Thursday, 6 December 2018 5:38 PM
To: Anne Humphries
Subject: RE: IEA - National Ceramic Industries Australia

Thank you Anne, much appreciated

Kim Collings | Jacobs | Principal – Environment, Newcastle Office Manager | APACME Buildings, Infrastructure & Advanced Facilities | +61 2 4979 2645 | +61 42 9303440 | Kim.Collings@jacobs.com | www.jacobs.com

From: Anne Humphries <Anne.Humphries@maitland.nsw.gov.au>
Sent: Thursday, 6 December 2018 4:20 PM
To: Collings, Kim <Kim.Collings@jacobs.com>
Subject: [EXTERNAL] RE: IEA - National Ceramic Industries Australia

Hi Kim

I am only involved in the development contributions side of the project. I have forwarded your enquiry on to the Manager of Development and Environment who will no doubt be in touch shortly.

Regards

Anne Humphries
Development Contributions Administrator
Strategic Planning (Urban Growth) | Maitland City Council
t (02) 4934 9861
f 02 4934 8469
Anne.Humphries@maitland.nsw.gov.au

From: Collings, Kim [mailto:Kim.Collings@jacobs.com]
Sent: Thursday, 6 December 2018 9:30 AM
To: Anne Humphries
Subject: FW: IEA - National Ceramic Industries Australia

Hi Anne

Further to the email below, it is understood that you have been a council contact for National Ceramic Industries Australia.

As per the email below Jacobs is conducting an Independent Environmental Audit (IEA) of the National Ceramic Industries Australia (NCIA) facility at Rutherford in NSW.

Maitland City Council is listed to be consulted in the DP&E Independent Audit Requirements.

If you could provide some comments on issues your agency /organisation has identified with the NCIA facility, it's operation, stakeholder interaction or community consultation, it would be greatly appreciated.

Thank you

Kim

Kim Collings | Jacobs | Principal – Environment, Newcastle Office Manager | APACME Buildings, Infrastructure & Advanced Facilities | +61 2 4979 2645 | +61 42 9303440 | Kim.Collings@jacobs.com | www.jacobs.com

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From: Collings, Kim
Sent: Wednesday, 5 December 2018 4:14 PM
To: 'info@maitland.nsw.gov.au' <info@maitland.nsw.gov.au>
Subject: IEA - National Ceramic Industries Australia

To whom it may concern,

Jacobs are conducting an Independent Environmental Audit (IEA) of the National Ceramic Industries Australia (NCIA) facility at Rutherford in NSW. I will be the Lead Auditor for this audit.

The IEA is required to satisfy the Project Approval 09-0006 (National Ceramic Industries Australia Tile Manufacturing Facility Expansion Project) Schedule 2, Conditions 61, 62 and 63 that require an IEA by the end of 2014 and every three years thereafter.

The site inspection portion of the audit is programmed for the period 10-12-18. As such, I would appreciate any feedback you have as soon as you are able to support the audit.

Your agency/organisation is listed to be consulted in the DP&E Independent Audit Requirements (NSW Department of Planning and Environment).

Could you please provide some comments on issues your agency /organisation has identified with the NCIA facility, it's operation, stakeholder interaction or community consultation.

If you have any specific areas of interest that you would like explored in the audit, please note those too.

If you would prefer to have your input kept confidential, please call on 0429 303 440 and the queries will be assessed in the audit but not attributed to you or your organisation.

Kind Regards

Kim

Kim Collings | Jacobs | Principal – Environment, Newcastle Office Manager | APACME Buildings, Infrastructure & Advanced Facilities | +61 2 4979 2645 | +61 42 9303440 | Kim.Collings@jacobs.com | www.jacobs.com

---

Collings, Kim

From: Collings, Kim
Sent: Wednesday, 5 December 2018 4:14 PM
To: info@environment.nsw.gov.au
Subject: IEA - National Ceramic Industries Australia

Tracking: **Recipient**
info@environment.nsw.gov.au

To whom it may concern,

Jacobs are conducting an Independent Environmental Audit (IEA) of the National Ceramic Industries Australia (NCIA) facility at Rutherford in NSW. I will be the Lead Auditor for this audit.

The IEA is required to satisfy the Project Approval 09-0006 (National Ceramic Industries Australia Tile Manufacturing Facility Expansion Project) Schedule 2, Conditions 61, 62 and 63 that require an IEA by the end of 2014 and every three years thereafter.

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Could you please provide some comments on issues your agency /organisation has identified with the NCIA facility, it's operation, stakeholder interaction or community consultation.

If you have any specific areas of interest that you would like explored in the audit, please note those too.

If you would prefer to have your input kept confidential, please call on 0429 303 440 and the queries will be assessed in the audit but not attributed to you or your organisation.

Kind Regards

Kim

Kim Collings | Jacobs | Principal – Environment, Newcastle Office Manager | APACME Buildings, Infrastructure & Advanced Facilities | +61 2 4979 2645 | +61 42 9303440 | Kim.Collings@jacobs.com | www.jacobs.com

Appendix D. Site Inspection Photographs

Photo 1 - Entrance to the site

Photo 2 – Waste tile area

Photo 3 – Fill storage area from the warehouse extension

Photo 4 – Waste tile area

Photo 5 – Material unloading and handling area

Photo 6 – Diesel bunded area

Photo 7 – Material sorting area

Photo 8 – Tile press area

Photo 9 – Kiln area