

A. Statement of Compliance - Licence Details

ALL Licence holders must check that the Licence details in Section A are correct.

If there are changes to any of these details, **you must advise Environment Protection Authority (EPA) and apply as soon as possible for a variation to your Licence or for a Licence transfer.**

Licence variation and transfer application forms are available on the EPA website at: <http://www.epa.nsw.gov.au/licensing-and-regulation/licensing> or from regional offices of the EPA, or by contacting by telephone 02 9995 5700.

If you are applying to vary or transfer your Licence, you must still complete and submit this Annual Return.

A1. Licence holder

Licence number : 11956
Licence holder : NATIONAL CERAMIC INDUSTRIES AUSTRALIA PTY LIMITED
Trading name (if applicable) :
ABN : 83 100 467 267
ACN : 100 467 267
Reporting period : From: 1-8-2019 To: 31-7-2020

A2. Premises to which Licence Applies (if applicable)

Common name (if any) : NATIONAL CERAMIC INDUSTRIES AUSTRALIA PTY LTD
Premises : RACECOURSE ROAD RUTHERFORD 2320 NSW

A3. Activities to which Licence Applies

Ceramic works

A4. Other Activities (if applicable)

A5. Fee-Based Activity Classifications

Note that the fee based activity classification is used to calculate the administrative fee.

Fee-based activity	Activity scale	Unit of measure
Ceramics production	> 50,000.00 - 200,000.00	T annual production capacity

A6. Assessable Pollutants (if applicable)

Note that the identification of assessable pollutants is used to calculate the **load-based fee**.
The following assessable pollutants are identified for the fee-based activity classifications in the licence:

Ceramics production

Coarse Particulates (Air)
Fine Particulates (Air)
Fluoride (Air)
Nitrogen Oxides (Air)
Sulfur Oxides (Air)

B. Monitoring and Complaints Summary

B1. Number of Pollution Complaints

Pollution Complaint Category	Complaints
Air	0
Water	0
Noise	0
Waste	0
Other	0
Total complaints recorded by the licensee during the reporting period	0

B2. Concentration Monitoring Summary

For each concentration monitoring point identified in your licence, details are displayed below. If concentration monitoring is not required by your licence, **no data** will appear below.

If data was provided from an uploaded file, the file name will be displayed below instead of any data.

Note that this does not exclude the need to conduct appropriate concentration monitoring of assessable pollutants as required by load-based licensing (if applicable).

Discharge & Monitoring Point 1

Discharge to Air, Dust extractor clay preparation CP1 & CP 2 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Dry gas density	kilograms per cubic metre	1	1	1.29	1.29	1.29
Moisture content	percent	1	1	1.7	1.7	1.7
Molecular weight of stack gases	grams per gram mole	1	1	28.8	28.8	28.8

Solid Particles	milligrams per cubic metre	1	1	6.9	6.9	6.9
Temperature	degrees Celsius	1	1	28	28	28
Velocity	metres per second	1	1	17	17	17
Volumetric flowrate	cubic metres per second	1	1	12	12	12

Discharge & Monitoring Point 3

Discharge to air, Pressing and Drying PD1 & PD2 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Dry gas density	kilograms per cubic metre	1	1	1.29	1.29	1.29
Moisture content	percent	1	1	1.1	1.1	1.1
Molecular weight of stack gases	grams per gram mole	1	1	28.8	28.8	28.8
Solid Particles	milligrams per cubic metre	1	1	7.4	7.4	7.4
Temperature	degrees Celsius	1	1	20	20	20
Velocity	metres per second	1	1	16	16	16
Volumetric flowrate	cubic metres per second	1	1	12	12	12

Discharge & Monitoring Point 5

Discharge to air, Drier D1 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Dry gas density	kilograms per cubic metre	1	1	1.29	1.29	1.29
Moisture content	percent	1	1	9.0	9.0	9.0
Molecular weight of stack gases	grams per gram mole	1	1	28.8	28.8	28.8
Solid Particles	milligrams per cubic metre	1	1	19	19	19

Temperature	degrees Celsius	1	1	112	112	112
Velocity	metres per second	1	1	10	10	10
Volumetric flowrate	cubic metres per second	1	1	1.3	1.3	1.3

Discharge & Monitoring Point 6

Discharge to air, Drier D2 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Dry gas density	kilograms per cubic metre	1	1	1.29	1.29	1.29
Moisture content	percent	1	1	5.5	5.5	5.5
Molecular weight of stack gases	grams per gram mole	1	1	28.8	28.8	28.8
Solid Particles	milligrams per cubic metre	1	1	4.3	4.3	4.3
Temperature	degrees Celsius	1	1	104	104	104
Velocity	metres per second	1	1	11	11	11
Volumetric flowrate	cubic metres per second	1	1	1.5	1.5	1.5

Discharge & Monitoring Point 9

Discharge to air, Glaze line as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Dry gas density	kilograms per cubic metre	1	1	1.29	1.29	1.29
Moisture content	percent	1	1	1.0	1.0	1.0
Molecular weight of stack gases	grams per gram mole	1	1	28.8	28.8	28.8
Solid Particles	milligrams per cubic metre	1	1	2.8	2.8	2.8
Temperature	degrees Celsius	1	1	25	25	25

Velocity	metres per second	1	1	13	13	13
Volumetric flowrate	cubic metres per second	1	1	9.1	9.1	9.1

Discharge & Monitoring Point 10

Discharge to air, Selection SL 1234 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Dry gas density	kilograms per cubic metre	1	1	1.29	1.29	1.29
Moisture content	percent	1	1	0.8	0.8	0.8
Molecular weight of stack gases	grams per gram mole	1	1	28.8	28.8	28.8
Solid Particles	milligrams per cubic metre	1	1	4.7	4.7	4.7
Temperature	degrees Celsius	1	1	25	25	25
Velocity	metres per second	1	1	5.6	5.6	5.6
Volumetric flowrate	cubic metres per second	1	1	0.97	0.97	0.97

Discharge & Monitoring Point 12

Discharge to air, Spray Drier SD1 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Dry gas density	kilograms per cubic metre	1	1	1.29	1.29	1.29
Moisture content	percent	1	1	17.0	17.0	17.0
Molecular weight of stack gases	grams per gram mole	1	1	28.8	28.8	28.8
Solid Particles	milligrams per cubic metre	1	1	7.2	7.2	7.2
Temperature	degrees Celsius	1	1	80	80	80
Velocity	metres per second	1	1	20	20	20

Volumetric flowrate	cubic metres per second	1	1	19	19	19
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Discharge & Monitoring Point 14

Discharge to air, Kiln KP1 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Cadmium	milligrams per cubic metre	1	1	0.0073	0.0073	0.0073
Carbon dioxide	percent	1	2	2.0	2.0	2.0
Dry gas density	kilograms per cubic metre	1	2	1.30	1.30	1.30
Hazardous substances	milligrams per cubic metre	1	1	0.079	0.079	0.079
Hydrogen fluoride	milligrams per cubic metre	1	1	5.8	5.8	5.8
Mercury	milligrams per cubic metre	1	1	0.0024	0.0024	0.0024
Moisture	percent	1	2	4.7	4.8	4.8
Molecular weight of stack gases	grams per gram mole	1	2	29.0	29.0	29.0
Nitrogen Oxides	milligrams per cubic metre	1	1	45	45	45
Oxygen (O2)	percent	1	1	17.5	17.5	17.5
Solid Particles	milligrams per cubic metre	1	1	18	18	18
Sulfuric acid mist and sulfur trioxide (as SO3)	milligrams per cubic metre	1	1	21	21	21
Velocity	metres per second	1	2	16	16.5	17
Volumetric flowrate	cubic metres per second	1	2	6.2	6.3	6.4

Discharge & Monitoring Point 15

Discharge to air, Kiln KP2 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Cadmium	milligrams per cubic metre	1	1	0.025	0.025	0.025
Carbon dioxide	percent	1	3	2.1	2.1	2.2
Dry gas density	kilograms per cubic metre	1	3	1.30	1.30	1.30
Hazardous substances	milligrams per cubic metre	1	1	0.26	0.26	0.26
Hydrogen fluoride	milligrams per cubic metre	1	1	2.9	2.9	2.9
Mercury	milligrams per cubic metre	1	1	0.0034	0.0034	0.0034
Moisture	percent	1	3	5.5	5.9	6.3
Molecular weight of stack gases	grams per gram mole	1	3	29.0	29.0	29.0
Nitrogen Oxides	milligrams per cubic metre	1	1	38	38	38
Oxygen (O ₂)	percent	1	1	17.2	17.2	17.2
Solid Particles	milligrams per cubic metre	1	1	21	21	21
Sulfuric acid mist and sulfur trioxide (as SO ₃)	milligrams per cubic metre	1	1	16	16	16
Velocity	metres per second	1	3	15	15	15
Volumetric flowrate	cubic metres per second	1	3	6.1	6.3	6.5

Discharge & Monitoring Point 18

Discharge to air, Hot air cooling HAC1 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Dry gas density	kilograms per cubic metre	1	1	1.29	1.29	1.29
Moisture content	percent	1	1	0.9	0.9	0.9
Molecular weight of stack gases	grams per gram mole	1	1	28.8	28.8	28.8
Solid Particles	milligrams per cubic metre	1	1	4.9	4.9	4.9

Temperature	degrees Celsius	1	1	133	133	133
Velocity	metres per second	1	1	8.4	8.4	8.4
Volumetric flowrate	cubic metres per second	1	1	4.4	4.4	4.4

Discharge & Monitoring Point 19

Discharge to air, Hot air cooling HAC2 as shown on Figure Titled: Plant Emission Locations and Air Quality Controls dated 17 July 2003.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Dry gas density	kilograms per cubic metre	1	1	1.29	1.29	1.29
Moisture content	percent	1	1	0.5	0.5	0.5
Molecular weight of stack gases	grams per gram mole	1	1	28.8	28.8	28.8
Solid Particles	milligrams per cubic metre	1	1	4.0	4.0	4.0
Temperature	degrees Celsius	1	1	98	98	98
Velocity	metres per second	1	1	3.1	3.1	3.1
Volumetric flowrate	cubic metres per second	1	1	1.8	1.8	1.8

Monitoring Point 22

Ambient Air Monitoring - PM 10, PM 10 monitoring locations as shown on diagram titled "Proposed ambient air quality monitoring sites - PM 10, HF and meteorological monitoring". Dated 20 January 2004

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
PM10	micrograms per cubic metre	122	122	5.6	28.3	114

Monitoring Point 23

Ambient Air Monitoring - Fluoride compounds, HF monitoring locations as shown on diagram titled "Proposed ambient air quality monitoring sites - PM 10, HF and meteorological monitoring". Dated 20 January 2004.

Pollutant	Unit of measure	No. of samples required	No. of samples collected and analysed	Lowest sample value	Mean of sample	Highest sample value
Hydrogen fluoride	micrograms per cubic metre	122	122	0.06	0.38	2.58

B3. Volume or Mass Monitoring Summary

For each volume or mass monitoring point identified in your licence, details are displayed below. If volume or mass monitoring is not required by your licence, **no data** will appear below.

If data was provided from an uploaded file, the file name will be displayed below instead of any data.

Note that this does not exclude the need to conduct appropriate volume or mass monitoring of assessable pollutants are required by load-based licensing (if applicable).

C. Statement of Compliance - Licence Conditions

C1. Compliance with Licence Conditions

Were all conditions of the licence complied with (including monitoring and reporting requirements)?	No
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C2. Details of Non-Compliance with Licence

Licence condition number not complied with ▼
Condition L3.4, EPL point 14.
Summary of particulars of the non-compliance ▼
Kiln 1 (EPL point 14) fluoride emission result of 5.8 mg/m3 marginally exceeded limit of 5 mg/m3
Further details on particulars of non-compliance, if required ▼
As a comparison fluoride emission result for Kiln 2 (EPL point 15) on 2 July 2020 using the same source material was 2.9 mg/m3
Number of times occurred ▼
1
Date(s) when the non-compliance occurred, if applicable ▼
Annual testing date - 1 July 2020
Cause of non-compliance ▼
Variability in process and monitoring results
Action taken or that will be taken to mitigate any adverse effects of the non-compliance ▼

All weekly and 24 hour ambient fluoride monitoring to the northwest and southeast of the facility returned results below relevant ANZECC guideline values.

Annual fluoride mass emission of 1563 kilograms is below EPL limit of 1850 kilograms

Action taken or that will be taken to prevent a recurrence of the non-compliance ▼

Ongoing operational matters regarding this non-compliance include: monitoring of source material inputs; raw material analytical composition assessment; and understanding of variability of emissions between kilns 1 and 2 using the same source raw materials

Uploaded Document Name ▼

Uploaded Document Description ▼

Not applicable

Licence condition number not complied with ▼

Condition L3.4, EPL point 15

Summary of particulars of the non-compliance ▼

Kiln 2 (EPL point 15) solid particle emissions of 21 mg/m3 marginally exceeded limit of 20 mg/m3

Further details on particulars of non-compliance, if required ▼

Not applicable

Number of times occurred ▼

1

Date(s) when the non-compliance occurred, if applicable ▼

Annual testing date - 2 July 2020

Cause of non-compliance ▼

Variability in process and monitoring results

Action taken or that will be taken to mitigate any adverse effects of the non-compliance ▼

This minor exceedance was the only solid particle monitoring result exceeding EPL license limits with all ten other EPL stack monitoring points below EPL limits

Annual particulate mass emission of 17448 kilograms is well below EPL limit of 40967 kilograms

Action taken or that will be taken to prevent a recurrence of the non-compliance ▼

Not applicable

Uploaded Document Name ▼

Uploaded Document Description ▼

Not applicable

D. Statement of Compliance - Load Based Fee Calculation

If you are not required to monitor assessable pollutants by your licence, **no data** will appear below.

If assessable pollutants have been identified on your licence, the following worksheets for each assessable pollutant will determine your load based fee for the licence fee period to which this Annual Return relates.

Loads of assessable pollutants must be calculated using any of the methods provided in EPA's Load Calculation Protocol for the relevant activity. A Load Calculation Protocol would have been already sent to you with your licence. If you require additional copies, you can download the Protocol from the EPA's website or you can contact us on telephone 02 9995 5700.

You are required to keep all records used to calculate licence fees for four years after the licence fee was paid or became payable, whichever is the later date.

Assessable Pollutant			Assessable Load	Actual Load	Pollutant Fee
Coarse Particulates discharged to Air			4482.0	4482.0	\$407.25
Load based licence activity	Actual quantity	Actual load (Calculation method)	Weighted Load (Calculation method)		Agreed load
Ceramics production	79860	4482 (Source monitoring, Method: TM 15)			
Fine Particulates discharged to Air			12966.0	12966.0	\$10,820.01
Load based licence activity	Actual quantity	Actual load (Calculation method)	Weighted Load (Calculation method)		Agreed load
Ceramics production	79860	12966 (Source monitoring, Method: OM 15)			
Fluoride discharged to Air			1563.0	1563.0	\$662.76
Load based licence activity	Actual quantity	Actual load (Calculation method)	Weighted Load (Calculation method)		Agreed load
Ceramics production	79860	1563 (Source monitoring, Method: TM 9)			
Nitrogen Oxides discharged to Air			18293.0	18293.0	\$1,727.94
Load based licence activity	Actual quantity	Actual load (Calculation method)	Weighted Load (Calculation method)		Agreed load
Ceramics production	79860	18293 (Source monitoring, Method: TM 11)			

Sulfur Oxides discharged to Air		6678.0	6678.0	\$74.16
Load based licence activity	Actual quantity	Actual load (Calculation method)	Weighted Load (Calculation method)	Agreed load
Ceramics production	79860	6678 (Source monitoring, Method: TM 3)		

E. Statement of Compliance - Requirement to Prepare PIRMP

Have you prepared a Pollution Incident Response Management Plan (PIRMP) as required under section 153A of the Protection of the Environment Operations (POEO) Act 1997?		Yes
Is the PIRMP available at the premises?		Yes
Is the PIRMP available in a prominent position on a publicly accessible website?		Yes
Address of the web page where the PIRMP can be accessed ▼		
www.ncia.com.au		
Has the PIRMP been tested?		Yes
The PIRMP was last tested on	24-9-2019	
Has the PIRMP been updated?		No
Number of times the PIRMP was activated in this reporting period?		0
The PIRMP was activated on		

F. Statement of Compliance - Requirement to Publish Pollution Monitoring Data

Are there any conditions attached to your licence that require pollution monitoring to be undertaken as required under section 66(6) of the Protection of the Environment Operations (POEO) Act 1997?		Yes
Do you operate a website?		Yes
Is the pollution monitoring data published on your website in accordance with the EPA's written requirements for publishing pollution monitoring data?		Yes
Address of the web page where the pollution monitoring data can be accessed ▼		
www.ncia.com.au		

G. Statement of Compliance - Environment Management System and Practices

Do you have an ISO 14001 certified Environmental Management System (EMS) OR any other system that EPA considers is equivalent to the accountability, procedures, documentation and record keeping requirements of an ISO 14001 certified EMS?	No
Have you conducted an assessment of your activities and operations to identify the aspects that have a potential to cause environmental impacts and implemented operational controls to address these aspects?	Yes
Have you established and implemented an operational maintenance program, including preventative maintenance?	Yes
Do you keep records of regular inspections and maintenance of plant and equipment?	Yes
Do you conduct regular (at least yearly) environmental audits at the premises that are conducted by a competent and independent person?	Yes
Have you undertaken an independent environmental audit covering documented environmental practices, procedures and systems in place during the annual return period?	Yes
Have you established and implemented an environmental improvement or management plan?	Yes
Do you train staff in environmental issues that may arise from your activities and operations at the premises and keep records of this?	Yes

H. Signature and Certification

This Annual Return may only be signed by person(s) with legal authority to sign it as set out in following categories: an Individual, a Company, a Public authority or a Local council.

It is an offence under section 66 of the Protection of the Environment Operations Act 1997 to supply any information in this form that is false or misleading in a material respect, or to certify a statement that is false or misleading in a material respect. There is a maximum penalty of \$250,000 for a corporation and \$120,000 for an individual.

I/We

- declare that the information in the Monitoring and Complaints Summary in Section B of this Annual Return application is correct and not false or misleading in a material respect, and
- certify that the information in the Statement and Compliance in sections A, C, D, E, F, G and H and any other pages attached to Section C is correct and not false or misleading in a material respect.