

Environment Protection Licence

Licence - 20971

Licence Details

Number:	20971
Anniversary Date:	28-September

Licensee

JOHN HOLLAND PTY LTD

3RD FLOOR/140 SUSSEX STREET

SYDNEY NSW 2000

Premises

SYDNEY METRO CITY & SOUTHWEST TUNNELS AND
EXCAVATION WORKSLOCATIONS BETWEEN CHATSWOOD RAILWAY STATION
AND SYDENHAM RAILWAY STATION

SYDNEY NSW 2000

Scheduled Activity

Concrete works

Railway activities - railway infrastructure construction

Fee Based Activity

Scale

Concrete works	> 50000 m3 annual production capacity
Railway infrastructure construction ($\geq 50,000$ T & track to be constructed > 10 km & < 30 km)	> 50000-500000 Remaining extraction or processing

Region

Metropolitan West - Sydney

4 Parramatta Square, 12 Darcy Street

PARRAMATTA NSW 2150

Phone: (02) 9995 5000

Fax: (02) 9995 6900

Locked Bag 5022

PARRAMATTA NSW 2124

Environment Protection Licence

Licence - 20971



INFORMATION ABOUT THIS LICENCE	4
Dictionary	4
Responsibilities of licensee	4
Variation of licence conditions	4
Duration of licence	4
Licence review	4
Fees and annual return to be sent to the EPA	4
Transfer of licence	5
Public register and access to monitoring data	5
1 ADMINISTRATIVE CONDITIONS	6
A1 What the licence authorises and regulates	6
A2 Premises or plant to which this licence applies	6
A3 Information supplied to the EPA	7
2 DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND	7
P1 Location of monitoring/discharge points and areas	7
3 LIMIT CONDITIONS	8
L1 Pollution of waters	8
L2 Concentration limits	8
L3 Noise limits	9
L4 Hours of operation	10
L5 Potentially offensive odour	16
L6 Other limit conditions	16
4 OPERATING CONDITIONS	17
O1 Activities must be carried out in a competent manner	17
O2 Maintenance of plant and equipment	17
O3 Dust	17
O4 Waste management	17
O5 Other operating conditions	19
5 MONITORING AND RECORDING CONDITIONS	19
M1 Monitoring records	19
M2 Requirement to monitor concentration of pollutants discharged	19
M3 Weather monitoring	20
M4 Recording of pollution complaints	20
M5 Telephone complaints line	21

Environment Protection Licence

Licence - 20971



M6	Noise monitoring	22
6	REPORTING CONDITIONS	22
R1	Annual return documents	22
R2	Notification of environmental harm	23
R3	Written report	23
R4	Other reporting conditions	24
7	GENERAL CONDITIONS	26
G1	Copy of licence kept at the premises or plant	26
G2	Other general conditions	26
8	SPECIAL CONDITIONS	26
E1	Alternative Respite Scheduling	26
E2	Community Agreements	27
E3	Shipping in bulk	29
E4	Crushing, grinding and separating works - Barangaroo worksite	30
E5	Special Dictionary	31
DICTIONARY		33
	General Dictionary	33

Environment Protection Licence

Licence - 20971



Information about this licence

Dictionary

A definition of terms used in the licence can be found in the dictionary at the end of this licence.

Responsibilities of licensee

Separate to the requirements of this licence, general obligations of licensees are set out in the Protection of the Environment Operations Act 1997 ("the Act") and the Regulations made under the Act. These include obligations to:

- ensure persons associated with you comply with this licence, as set out in section 64 of the Act;
- control the pollution of waters and the pollution of air (see for example sections 120 - 132 of the Act);
- report incidents causing or threatening material environmental harm to the environment, as set out in Part 5.7 of the Act.

Variation of licence conditions

The licence holder can apply to vary the conditions of this licence. An application form for this purpose is available from the EPA.

The EPA may also vary the conditions of the licence at any time by written notice without an application being made.

Where a licence has been granted in relation to development which was assessed under the Environmental Planning and Assessment Act 1979 in accordance with the procedures applying to integrated development, the EPA may not impose conditions which are inconsistent with the development consent conditions until the licence is first reviewed under Part 3.6 of the Act.

Duration of licence

This licence will remain in force until the licence is surrendered by the licence holder or until it is suspended or revoked by the EPA or the Minister. A licence may only be surrendered with the written approval of the EPA.

Licence review

The Act requires that the EPA review your licence at least every 5 years after the issue of the licence, as set out in Part 3.6 and Schedule 5 of the Act. You will receive advance notice of the licence review.

Fees and annual return to be sent to the EPA

For each licence fee period you must pay:

- an administrative fee; and
- a load-based fee (if applicable).

Environment Protection Licence

Licence - 20971



The EPA publication “A Guide to Licensing” contains information about how to calculate your licence fees. The licence requires that an Annual Return, comprising a Statement of Compliance and a summary of any monitoring required by the licence (including the recording of complaints), be submitted to the EPA. The Annual Return must be submitted within 60 days after the end of each reporting period. See condition R1 regarding the Annual Return reporting requirements.

Usually the licence fee period is the same as the reporting period.

Transfer of licence

The licence holder can apply to transfer the licence to another person. An application form for this purpose is available from the EPA.

Public register and access to monitoring data

Part 9.5 of the Act requires the EPA to keep a public register of details and decisions of the EPA in relation to, for example:

- licence applications;
- licence conditions and variations;
- statements of compliance;
- load based licensing information; and
- load reduction agreements.

Under s320 of the Act application can be made to the EPA for access to monitoring data which has been submitted to the EPA by licensees.

This licence is issued to:

JOHN HOLLAND PTY LTD
3RD FLOOR/140 SUSSEX STREET
SYDNEY NSW 2000

subject to the conditions which follow.

Environment Protection Licence

Licence - 20971

1 Administrative Conditions

A1 What the licence authorises and regulates

A1.1 This licence authorises the carrying out of the scheduled development work listed below at the premises listed in A2:

These works are wharf upgrades at Blues Point and the Clyde Barging Facilities.

A1.2 This licence authorises the carrying out of the scheduled activities listed below at the premises specified in A2. The activities are listed according to their scheduled activity classification, fee-based activity classification and the scale of the operation.

Unless otherwise further restricted by a condition of this licence, the scale at which the activity is carried out must not exceed the maximum scale specified in this condition.

Scheduled Activity	Fee Based Activity	Scale
Concrete works	Concrete works	> 50000 m3 annual production capacity
Railway activities - railway infrastructure construction	Railway infrastructure construction (>=50,000T & track to be constructed >10km & <30km)	> 50000 - 500000 Remaining extraction or processing

A2 Premises or plant to which this licence applies

A2.1 The licence applies to the following premises:

Premises Details
SYDNEY METRO CITY & SOUTHWEST TUNNELS AND EXCAVATION WORKS
LOCATIONS BETWEEN CHATSWOOD RAILWAY STATION AND SYDENHAM RAILWAY STATION
SYDNEY
NSW 2000
BETWEEN CHATSWOOD RAILWAY STATION AND SYDENHAM RAILWAY STATION AS DEFINED BY PREMISES MAPS HELD BY THE EPA.

A2.2 The premises is the most recently approved premises maps held on EPA electronic file EF17/7560.

A2.3 Premises maps are not deemed to be approved by the EPA unless confirmed in writing.

A2.4 Premises maps changes as a result of scheduled land portion handover, land portion surrenders or land portion additions are permitted to be altered through this condition. Any proposed variations to the

Environment Protection Licence

Licence - 20971

premises must:

- (a) be submitted to the EPA in electronic format; and
- (b) be a complete map set containing unique identifiers for revision number and map sheet numbers; and
- (c) be submitted to the EPA no less than 5 business days prior to the scheduled handover, surrender or land portion addition date.

A2.5 The licensee must display the most recently approved premises maps on the project's website.

A3 Information supplied to the EPA

A3.1 Works and activities must be carried out in accordance with the proposal contained in the licence application, except as expressly provided by a condition of this licence.

In this condition the reference to "the licence application" includes a reference to:

- a) the applications for any licences (including former pollution control approvals) which this licence replaces under the Protection of the Environment Operations (Savings and Transitional) Regulation 1998; and
- b) the licence information form provided by the licensee to the EPA to assist the EPA in connection with the issuing of this licence.

A3.2 Unless specifically stated by another condition of this licence, Environmental Management Plans or systems supplied to the EPA by the licensee do not form part of this licence.

2 Discharges to Air and Water and Applications to Land

P1 Location of monitoring/discharge points and areas

P1.1 The following utilisation areas referred to in the table below are identified in this licence for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

P1.2 The following points referred to in the table below are identified in this licence for the purposes of the monitoring and/or setting of limits for discharges of pollutants to water from the identified point.

EPA identification no.	Type of Monitoring Point	Type of discharge point	Location description
1	Water discharge	Water discharge	The outlet to sediment basins referred to in condition P1.2

Environment Protection Licence

Licence - 20971



2	Water treatment plant discharge	Water treatment plant discharge	The discharge from water treatment plants associated with tunnelling works referred to in condition P1.2
---	---------------------------------	---------------------------------	--

- P1.3 The sediment basins and discharge points referred to in Condition P1.1 are active basins and discharge points identified in the spreadsheet titled *Sydney Metro city & Southwest Temporary Sediment Basin and Water Treatment Discharge Point Schedule* that is stored on EPA electronic file EF17/7560.
- P1.4 The licensee must notify the EPA in writing, at least 48 hours prior to a basin or discharge point becoming active or inactive. The notification must include an updated *Sydney Metro city & Southwest Temporary Sediment Basin and Water Treatment Discharge Point Schedule*.

Note: For the purposes of this Condition, sediment basins are only considered active whilst accepting water directly from un-stabilised and/or active construction areas.

3 Limit Conditions

L1 Pollution of waters

- L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.

L2 Concentration limits

- L2.1 For each monitoring/discharge point or utilisation area specified in the table\ below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.
- L2.2 Where a pH quality limit is specified in the table, the specified percentage of samples must be within the specified ranges.
- L2.3 For the avoidance of doubt, this condition does not authorise the pollution of waters by any pollutant in any other concentrations other than those specified in the table\.
- L2.4 If the licensee uses turbidity (NTU) in place of TSS to determine compliance with Conditions L2.8 and L2.9 the licensee must develop a statistical correlation which identifies the relationship between NTU and TSS for water quality in the sediment basins, water treatment plants and excavations in order to determine the NTU equivalent of 50 mg/L TSS before NTU is used.
- L2.5 The licensee must provide the EPA with a copy of the statistical assessment methodology and results before using NTU in place of TSS.

Environment Protection Licence

Licence - 20971

- L2.6 The licensee must develop and implement a method to enable the ongoing verification of the relationship between NTU and TSS.
- L2.7 The licensee must provide the EPA with any amendments the licensee makes to the statistical correlation as a result of the ongoing verification required by Condition L2.6 before using the revised statistical correlation.
- L2.8 Water and/or Land Concentration Limits**

POINT 1

Pollutant	Units of Measure	100 percentile concentration limit
Oil and grease	Visible	Not visible
pH	pH	6.5 - 8.5
Total suspended solids	Milligrams per Litre	50

L2.9 POINT 2

Pollutant	Units of Measure	100 Percentile Concentration Limit
pH	pH	6.5 - 8.5
Total suspended solids	Milligrams per Litre	50

- L2.10 Exceedance of a quality limit specified in Conditions L2.8 and L2.9 of this licence for the discharge of pH and Total Suspended Solids from the points identified in Condition P1.3 of this licence is permitted if the discharge occurs solely as a result of rainfall measured at the Premises. This rainfall must exceed the rainfall depth value for the corresponding discharge point occurring from the discharge points listed in Condition P1.3.
- L2.11 Discharge points detailed in Condition P1.3 must be consistent with the controls detailed in the document titled *SMCSW-TSE-JCG-TPW-EM-RPT-097233-Controlled Water Overflow Management Strategy*.
- L2.12 The document referred to in Condition L2.11 must be displayed, and be made readily accessible on the licensee's project website.

L3 Noise limits

- L3.1 The licensee must implement all feasible and reasonable noise and vibration abatement measures at the

Environment Protection Licence

Licence - 20971



premises to minimise noise and vibration impacts on noise sensitive receivers.

L4 Hours of operation

L4.1 Unless permitted by another condition of this licence, construction works and activities must:

- (a) only be undertaken between the hours of 0700 and 1800 Monday to Friday; and
- (b) only be undertaken between the hours of 0800 and 1300 Saturday; and
- (c) not be undertaken on Sundays or Public Holidays.

L4.2 Exemptions to standard construction hours for low noise impact works

The following works and activities may be carried out outside of the hours specified in Condition L4.1 if the works and activities do not cause, when measured at the boundary of the most affected noise sensitive receiver:

- (a) LAeq(15 minute) noise levels greater than 5dB above the day, evening and night rating background level (RBL) as applicable; and
- (b) LA1(1 minute) or LAm_{ax} noise levels greater than 15dB above the night RBL for night works; and
- (c) continuous or impulsive vibration values greater than those for human exposure to vibration, set out for residences in Table 2.2 in "Environmental noise management - Assessing Vibration: a technical guideline" (Department of Environment and Conservation, February 2006); and
- (d) intermittent vibration values greater than those for human exposure to vibration, set out for residences in Table 2.4 in "Environmental noise management - Assessing Vibration: a technical guideline" (Department of Environment and Conservation, February 2006).

For the purpose of this condition, the RBLs are those contained in an environmental assessment for the scheduled activity subject to this licence prepared under the Environmental Planning and Assessment Act 1979. Alternatively, the licensee may use another RBL determined in accordance with the NSW Industrial Noise Policy (EPA, 2000) and provided to the EPA prior to carrying out any works or activities under this condition.

L4.3 Exemptions to standard construction hours in exceptional circumstances

- (a) The licensee may undertake works outside of standard construction hours if any of the following applies:
 - (i) emergency works is required to avoid the loss of lives or property, or to prevent material harm to the environment;
 - (ii) the delivery of oversized plant or structures has been determined by the police or other authorised authorities to require special arrangements to transport along public roads.
- (b) The licensee must, on becoming aware of the need to undertake emergency construction work under this condition notify the EPA's Environment Line as soon as practicable and submit a report to the EPA by 2pm on the next business day after the emergency works commenced that describes:

1. the cause, time and duration of the emergency; and

Environment Protection Licence

Licence - 20971



2. action taken by or on behalf of the licensee in relation to the emergency; and
3. details of any measures taken or proposed to be taken by the licensee to prevent or mitigate against a recurrence of the emergency.

For the purpose of this condition, “material harm to the environment” has the same meaning as in section 147 of the *POEO Act*.

L4.4 24-Hour works

The following works are permitted to be undertaken 24 hours a day, 7 days per week:

- (a) Tunnelling activities and tunnelling ancillary surface support works; and
- (b) Haulage and delivery and of spoil and materials; and
- (c) Excavation within an acoustic enclosure; and
- (d) Any other activities permitted by another condition of this licence.

L4.5 High Noise Impact Works

Unless otherwise specified by another condition of this licence, the following applies in relation to high noise impact works:

(a) High noise impact works and activities must only be undertaken:

1. between the hours of 8:00am to 6:00pm Monday to Friday;
2. between the hours of 8:00am to 1:00pm Saturday; and
3. in continuous blocks not exceeding 3 hours each with a minimum respite from those activities and works of not less than 1 hour between each block.

(b) the respite hours specified in L4.5(a)3. do not apply to high noise impact works where alternative respite scheduling has been determined as per the requirements of Condition L4.6 and E1.

For the purposes of this condition ‘continuous’ includes any period during which there is less than a 1 hour respite between ceasing and recommencing any of the work that is the subject of this condition.

L4.6 High Noise Impact Works – Victoria Cross, Barangaroo, Martin Place and Pitt Street Worksites

(a) This condition applies to works (including utility works) at the following worksites where internal noise levels are greater than $L_{eq(15\text{minute})}$ 60dB(A):

- a. Victoria Cross,
- b. Barangaroo,
- c. Martin Place and
- d. Pitt Street.

(b) This condition requires High Noise Impact Construction work and activities to be undertaken in accordance with the hours specified in Condition L4.5(a)1. and L4.5(a)2. and allows for alternative respite scheduling other than what is required by Condition L4.5(a)3. when alternative respite periods are determined in accordance with Conditions E1.1 and E1.2.

Environment Protection Licence

Licence - 20971



L4.7 Works Approved Outside of Standard Construction Hours – Local Area and Utility Works

(a) Local area and utilities works may be undertaken outside of standard construction hours specified in L4.1 at the Chatswood Dive, Victoria Cross North and South, Waterloo, Marrickville Barangaroo, Pitt Street, Martin Place and Blues Point worksites but only if one or more of the following applies:

- (i) carrying on those works and activities during the hours specified in Condition L4.1 would result in a high risk to construction personnel or public safety, based on a risk assessment carried out in accordance with AS/NZS ISO 31000:2009 "Risk Management"; or
- (ii) the relevant road network operator has advised the licensee in writing that carrying out the works and activities during the hours specified in Condition L4.1 would result in a high risk to road network operational performance; or
- (iii) the relevant utility service operator has advised the licensee in writing that carrying out the works and activities during the hours specified in Condition L4.1 would result in a high risk to the operation and integrity of the utility network; or
- (iv) the TfNSW Transport Management Centre (or other road authority) have advised the licensee in writing that a road occupancy licence is required and will not be issued for the works or activities during the hours specified in Condition L4.1; or
- (v) Sydney Trains (or other rail authority) have advised the licensee in writing that a Rail Possession is required and it will not be issued for the works or activities during the hours specified in Condition L4.1.

L4.8 In undertaking any works or activities under Condition L4.7 the licensee must:

(a) Only undertake activities between the hours of:

1. 6:00 pm and 7:00 am the following day on Mondays, Tuesdays, Wednesdays, and Thursdays; and
2. 6:00 pm and 8:00 am the following day on Fridays.

(b) Ensure that works and activities do not impact the same noise sensitive receivers on more than:

- (i) 3 evenings or nights per week; and
- (ii) 10 evenings or nights per month.

(c) Implement reasonable and feasible noise and vibration mitigation measures as detailed in the Interim Construction Noise Guidelines (DECC 2009).

(d) Undertake noise monitoring at the boundary of the most noise affected receiver or other sensitive land uses(s) that is most representative of noise generating activities being carried out at the site; and

(e) Comply with the requirements of Condition R4.1; and

(f) Comply with the requirements of Condition R4.4; and

(g) Ensure that an indicative schedule of local area and utilities works is made publicly accessible on the licensee's project website.

Environment Protection Licence

Licence - 20971



NOTE: For the purposes of condition L4.8 "impact" is defined as noise levels that exceed the noise levels in L4.2.

- L4.9 If works are undertaken by a utilities provider during a scheduled respite period identified by Condition L4.7, and those works are related to the scheduled activity permitted by this licence, the licensee must:
- (a) where feasible, reschedule any works permissible by Condition L4.7 to provide respite to impacted noise sensitive receivers so that the minimum number of respite periods in any week can be achieved; or
 - (b) consider the provision of alternative respite or mitigation to impacted noise sensitive receivers; and
 - (c) provide documentary evidence to the EPA in support of any decision made by the licensee in relation to the provision or refusal of any respite or mitigation within the validation report required by Condition R4.4.
- L4.10 The operation of Conditions L4.7, L4.8 and L4.9 is subject to review by the EPA after a 40 day trial period that extends from the date of issue of this licence.
- L4.11 Community Agreement**
- The licensee may undertake works outside of standard construction hours if agreement between the licensee and a substantial majority of noise sensitive receivers has been reached.
- Note: This condition applies to out-of-hours works that have not been approved by another condition of this licence.
- L4.12 Any agreement(s) between the licensee and noise sensitive receivers referred to in Condition L4.11 must be:
- (a) submitted to the EPA for approval prior to any works that are the subject of the agreement being undertaken; and
 - (b) prepared in writing and a copy of the agreement(s) kept on the premises by the licensee for the duration of this licence; and
 - (c) kept on the licensee's project website for the duration of the agreement (personal details of residents must be omitted); and
 - (d) prepared and implemented in accordance with Condition E2
- L4.13 Notification of works approved outside of standard construction hours**
- (a) The licensee must notify affected noise sensitive receivers of works approved outside of standard construction hours not less than 5 days and not more than 14 days before those works are to be undertaken.
 - (b) The notification must be:
 - by letterbox drop or email; and
 - be detailed on the project website.

Environment Protection Licence

Licence - 20971



(c) The notification required by paragraphs (a) and (b) of this condition must:

- clearly outline the reason that the work is required to be undertaken outside the hours specified in Condition L4.1;
- include a diagram that clearly identifies the location of the proposed works in relation to nearby cross streets and local landmarks;
- include details of relevant time restrictions that apply to the proposed works;
- clearly outline, in plain English, the location, nature, scope and duration of the proposed works;
- detail the expected noise impact of the works on noise sensitive receivers;
- clearly state how complaints may be made and additional information obtained; and
- include the number of the telephone complaints line required by Condition M4.1, an after hours contact phone number specific to the works undertaken outside the hours specified in Condition L4.1, and the project website address.

This condition does not apply to works undertaken in accordance with Condition L4.3.

L4.14 Additional Works Approved Outside of Standard Construction Hours

Additional Local Area and Utility Works are permitted to be undertaken outside the hours specified in Condition L4.1 at the Barangaroo, Pitt St, Waterloo, Victoria Cross South, Blues Point and Martin Place sites provided that:

(a) [deleted]

(b) [deleted]

(c) [deleted]

(d) [deleted]

(e) [deleted]

(f) [deleted]

(g) [deleted]

(h) [deleted]

(i) [deleted]

(j) [deleted]

(k) [deleted]

Environment Protection Licence

Licence - 20971



.
(l) [deleted]

.
(m) [deleted]

.
(n) [deleted]

.
(o) [deleted]

(p) [deleted]

.
(q) works at the Barangaroo worksite associated with station box concreting works as outlined in the licence variation supporting document submitted to the EPA on 8 May 2020 provided that:

(i) works are undertaken between 4am to 10pm Monday to Saturday,

(ii) the works are only undertaken between 12 May 2020 to 29 August 2020,

(iii) compliance noise monitoring is to be undertaken on a monthly basis at an external location representative of the most affected residential receiver location. The monitoring is to be carried out in accordance with condition M6 and monitoring data provided to the EPA in the monthly monitoring report.

(iv) during works authorised by this condition, no other works permissible under L4.7 are to be undertaken that will impact the same noise sensitive receiver by noise levels greater than those outlined in L4.2

.
(r) [deleted]

.
(s) works at the Victoria Cross worksite and precinct for stormwater pit works as outlined in the application submitted to EPA on 19 May 2020 and updated on 24 July 2020 and 5 August 2020 provided that;

(i) works are undertaken between 6pm Friday to 5am Monday on a maximum of six (6) weekend periods up to 14 September 2020,

(ii) compliance noise monitoring is to be undertaken on a monthly basis at an external location representative of the most affected residential receiver location. The monitoring is to be carried out in accordance with condition M6 and monitoring data provided to the EPA in the monthly monitoring report,

(iii) no high noise impact works are to be undertaken between midnight and 8am except for the plate compactor to allow for the safe reinstatement of the pedestrian path or roadway,

(iv) no additional out of hours work, except in accordance with L4.2, shall be performed three days before and three days after the weekend work.

L4.15 Additional Works Approved Outside of Standard Construction Hours

Additional Local Area and Utility Works are permitted to be undertaken outside the hours specified in Condition L4.1 at the Barangaroo, Pitt St, Waterloo, Victoria Cross South, Blues Point and Martin Place sites provided that:

Environment Protection Licence

Licence - 20971



- (a) deleted
- (b) deleted
- (c) deleted
- (d) deleted
- (e) deleted
- (f) deleted
- (h) deleted

(g) Works at the Pitt Street North as outlined in the licence variation application submitted to EPA on 15 June 2020 provided that;

- (i) works are undertaken from 7am to 6pm Saturday only,
- (ii) the works are approved from Saturday 27 June 2020 to Saturday 24 October 2020 inclusive and,
- (iii) High noise impacts works will be undertaken in accordance with E1.1

.

(i) Works at Pitt Street North and South for concrete pours, and plant mobilisation and demobilisation as per the application submitted to the EPA on 28 July 2020 provided that;

- (i) works are undertaken from Tuesday 4 August 2020 to Wednesday 30 September 2020 inclusive for a maximum of sixteen (16) nights;
- (ii) works are undertaken between 6pm to 7am the following day when works begin on a weekday, not including Friday;
- (iii) works are undertaken between 6pm and 8am the following day when works begin on a Friday; and
- (iv) works will be limited to no more than three (3) nights per week, and ten (10) nights per month.

L5 Potentially offensive odour

L5.1 No condition of this licence identifies a potentially offensive odour for the purposes of section 129 of the Protection of the Environment Operations Act 1997.

Note: Section 129 of the Protection of the Environment Operations Act 1997, provides that the licensee must not cause or permit the emission of any offensive odour from the premises 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.

L5.2 Offensive Blast Fumes

Offensive blast fume must not be emitted from the premises. Offensive blast fume means post-blast gases from the detonation of explosives at the premises that by reason of their nature, duration, character or quality, or the time at which they are emitted, or any other circumstances:

1. are harmful to (or likely to be harmful to) a person that is outside the premises from which it is emitted, or
2. interferes unreasonably with (or is likely to interfere unreasonably with) the comfort or repose of a person who is outside the premises from which it is emitted.

L6 Other limit conditions

L6.1 Blasting activities - Victoria Cross (North)

Environment Protection Licence

Licence - 20971



1. Prior to any blasting activities on the premises, the licensee is required to:
 - a) identify all sensitive receiver locations predicted to exceed an airblast overpressure level of 115dB(Lin) peak hold and/or ground vibration level of 5mm/s peak particle velocity; and,
 - b) provide the identified sensitive receivers with details of the proposed blasting activities.

2. The information provided to sensitive receivers shall include:
 - a) the date and time of proposed blasts and provide at least seven (7) days notice of blasts; and,
 - b) the option for people to receive additional text messages or emails on the day of the blast to advise as the detonation time approaches; and,
 - c) information about the likely level of perception the blasting will have, and direct the person to the provisions in CSSI 15_7400 that allows blasting to occur on the premises.

L6.2 The EPA is to be advised at least seven (7) days before any blast.

4 Operating Conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.

This includes:

- a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and
- b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

- a) must be maintained in a proper and efficient condition; and
- b) must be operated in a proper and efficient manner.

O3 Dust

O3.1 The licensee must minimise the emission of dust from the premises to the greatest extent practicable.

O4 Waste management

O4.1 Waste management

The licensee must assess, classify and manage any waste generated at the premises in accordance with the *Waste Classification Guidelines Part 1: Classifying Waste, November 2014* prior to taking the waste off the premises.

Environment Protection Licence

Licence - 20971



O4.2 The licensee must not cause, permit or allow any waste generated:

- (a) Outside the premises to be received at the premises, except for recycled materials from Sydney Trains rail corridor (EPL 12208) or Sydney Trains recycling facility (EPL 7515) or materials that meet the EPA's Resource Recovery Exemptions for engineered fill purposes;
- (b) At the premises to be land applied at the premises, except as permitted in Condition O4.3.

O4.3 Excavated material suitable for re-use within the premises, may be transported from one part of the premises or the Sydney Trains rail corridor or Sydney Trains recycling facility to another part of the premises by road in accordance with Condition O4.4.

O4.4 The licensee must ensure that:

- (a) The body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to minimise any spill or escape of any dust, waste or spoil from the vehicle or trailer; and
- (b) Mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the premises, is removed to the greatest extent practicable before the vehicle, trailer or motorised plant leaves the premises; and
- (c) Road surfaces subject to tracking of material by vehicles leaving the premises are cleaned at the end of each work day.

O4.5 Waste Management Plans

Waste Management Plans must be prepared for all demolition/construction/excavation works undertaken on the premises that generate waste that will be disposed offsite (not including office paper or cardboard). The plan must be completed prior to waste being transported off the premises. The plans must include the following:

- (a) Estimations of the different waste types to be generated from the proposed works; and
- (b) Estimations of how much of each waste type will be generated from the proposed works; and
- (c) List of all places (full street address) where waste will be transported to; and
- (d) Written confirmation from each place of disposal (listed in point c) that they can lawfully receive the types of waste proposed to be transported there.
- (e) Where the place of disposal changes after the plan has been made, an amendment to the plan can be made as an addendum that includes an update points a) to d) above.

O4.6 The licensee must ensure waste management, waste transport and waste disposal is carried out in accordance with the waste management plans prepared for the premises.

O4.7 A copy of all waste management plans must be kept on the premises.

O4.8 Waste Transport Documentation and Record Keeping

Environment Protection Licence

Licence - 20971



Legible copies of all receipts and/or weighbridge dockets in relation to disposal of waste from the premises must be collected from transporters and/or contractors and kept by the licensee.

O5 Other operating conditions

- O5.1 The licensee must, before undertaking any construction work (including excavation), implement all soil and water management works required to minimise the pollution of water in accordance with Managing urban stormwater: soils and construction - Volume 1, 4th Edition (Blue Book).

5 Monitoring and Recording Conditions

M1 Monitoring records

- M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.
- M1.2 All records required to be kept by this licence must be:
- a) in a legible form, or in a form that can readily be reduced to a legible form;
 - b) kept for at least 4 years after the monitoring or event to which they relate took place; and
 - c) produced in a legible form to any authorised officer of the EPA who asks to see them.
- M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence:
- a) the date(s) on which the sample was taken;
 - b) the time(s) at which the sample was collected;
 - c) the point at which the sample was taken; and
 - d) the name of the person who collected the sample.

M2 Requirement to monitor concentration of pollutants discharged

M2.1 Water and/or Land Monitoring Requirements

For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The licensee must use the sampling method, units of measure, and sample at the frequency, specified opposite in the other columns.

POINT 1

Pollutant	Units of Measure	Frequency	Sampling Method
-----------	------------------	-----------	-----------------

Environment Protection Licence

Licence - 20971

Oil and grease	Visible	Special Frequency 1	Visual inspection
pH	pH	Special Frequency 1	In situ
Total suspended solids	Milligrams per Litre	Special Frequency 1	Grab sample

M2.2 POINT 2

Note: Where a TSS/NTU correlation has been determined in accordance with Conditions L2.4 to L2.7, then in situ sampling method is suitable.

Pollutant	Units of Measure	Frequency	Sampling Method
pH	pH	Daily during any discharge	In situ
Total suspended solids	Milligrams per Litre	Daily during any discharge	Grab sample

M2.3 For the purposes of Conditions M2.1, the term 'Special Frequency 1' means:

- (a) Less than 24hours prior to controlled discharge and daily for any controlled discharge; and
- (b) When rainfall causes a discharge from a basin which has not been emptied within 5 days of the cessation of a rainfall event.

M3 Weather monitoring

M3.1 The licensee must monitor hourly temperature, humidity, wind velocity and rainfall at either the project weather station, or through analysis of equivalent weather information obtained from the Australian Bureau of Meteorology.

M4 Recording of pollution complaints

M4.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.

M4.2 The record must include details of the following:

- a) the date and time of the complaint;
- b) the method by which the complaint was made;
- c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
- d) the nature of the complaint;
- e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and
- f) if no action was taken by the licensee, the reasons why no action was taken.

M4.3 The record of a complaint must be kept for at least 4 years after the complaint was made.

Environment Protection Licence

Licence - 20971



M4.4 The record must be produced to any authorised officer of the EPA who asks to see them.

M5 Telephone complaints line

M5.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.

M5.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.

M5.3 The preceding two conditions do not apply until 28/09/2017 the date of the issue of this licence.

M5.4 Notification of Community Complaints Line

The licensee must ensure that the community notification required by condition M5.2 is undertaken:

(a) by including details on the project website on:

1. how the public can make a complaint on the telephone complaints line; and
2. how complaints will be processed

(b) by clear signage at the boundary of each worksite that contains both the telephone complaints line number and the project website details.

Note: For the purposes of this Condition and Condition M5.1, the telephone complaints line and notification of the telephone complaints line is operated and undertaken by Transport for NSW. The licensee will have staff available to respond to complaints during hours when works are occurring.

M5.5 Noise and Vibration Complaints

(a) The licensee must investigate noise and vibration complaints:

- (i) within two hours of the complaint being made; or
- (ii) in accordance with any documented complaint management agreement between the licensee and the complainant.

(b) The licensee must ensure that any investigation referred to in this condition that identifies works or activities being undertaken on the licensee's premises as the likely source of the complaint, includes an offer to the complainant to undertake attended noise or vibration monitoring at their premises unless representative real-time monitoring data was being collected at the time of the complaint.

(c) If the occupant of the dwelling or management personnel of a noise sensitive receiver other than a dwelling accepts the offer of attended noise or vibration monitoring the licensee must undertake that attended monitoring:

- (i) As soon as practicable; or
- (ii) At a time agreed with the complainant.

M5.6 Notifying Results of Complaint Investigation

Environment Protection Licence

Licence - 20971



The licensee must, in respect of each complaint made to the telephone complaints line required by Condition M5.1, advise each complainant of the results of its investigation of their complaint and any proposed remedial action.

M6 Noise monitoring

- M6.1 The licensee must monitor noise and vibration from construction work and especially during work undertaken out of hours specified in Condition L4.1
- M6.2 All noise monitoring must be undertaken in accordance with *Australian Standard AS 2659.1 – 1998: Guide to the use of sound measuring equipment – portable sound level meters*, or any revisions of that standard which may be made by Standards Australia, and the compliance monitoring guidance provided in the *NSW Industrial Noise Policy*.
- M6.3 All vibration monitoring must be undertaken in accordance with the technical guidance provided in the *Environmental Noise Management Assessing Vibration: A Technical Guideline* (DECC, 2006). All vibration monitoring results may be assessed and reported against the acceptable values of human exposure to vibration set out in Tables 2.2 and 2.4 of the guideline.
- M6.4 The licensee must undertake noise and vibration monitoring as directed by an authorised officer of the EPA.

6 Reporting Conditions

R1 Annual return documents

- R1.1 The licensee must complete and supply to the EPA an Annual Return in the approved form comprising:
1. a Statement of Compliance,
 2. a Monitoring and Complaints Summary,
 3. a Statement of Compliance - Licence Conditions,
 4. a Statement of Compliance - Load based Fee,
 5. a Statement of Compliance - Requirement to Prepare Pollution Incident Response Management Plan,
 6. a Statement of Compliance - Requirement to Publish Pollution Monitoring Data; and
 7. a Statement of Compliance - Environmental Management Systems and Practices.

At the end of each reporting period, the EPA will provide to the licensee notification that the Annual Return is due.

- R1.2 An Annual Return must be prepared in respect of each reporting period, except as provided below.

Environment Protection Licence

Licence - 20971



Note: The term "reporting period" is defined in the dictionary at the end of this licence. Do not complete the Annual Return until after the end of the reporting period.

R1.3 Where this licence is transferred from the licensee to a new licensee:

- a) the transferring licensee must prepare an Annual Return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the licence to the new licensee is granted; and
- b) the new licensee must prepare an Annual Return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where this licence is surrendered by the licensee or revoked by the EPA or Minister, the licensee must prepare an Annual Return in respect of the period commencing on the first day of the reporting period and ending on:

- a) in relation to the surrender of a licence - the date when notice in writing of approval of the surrender is given; or
- b) in relation to the revocation of the licence - the date from which notice revoking the licence operates.

R1.5 The Annual Return for the reporting period must be supplied to the EPA via eConnect *EPA* or by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'due date').

R1.6 The licensee must retain a copy of the Annual Return supplied to the EPA for a period of at least 4 years after the Annual Return was due to be supplied to the EPA.

R1.7 Within the Annual Return, the Statements of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

- a) the licence holder; or
- b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R2 Notification of environmental harm

R2.1 Notifications must be made by telephoning the Environment Line service on 131 555.

Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.2 The licensee must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an authorised officer of the EPA suspects on reasonable grounds that:

- a) where this licence applies to premises, an event has occurred at the premises; or

Environment Protection Licence

Licence - 20971



b) where this licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this licence, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies), the authorised officer may request a written report of the event.

R3.2 The licensee must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

- a) the cause, time and duration of the event;
- b) the type, volume and concentration of every pollutant discharged as a result of the event;
- c) the name, address and business hours telephone number of employees or agents of the licensee, or a specified class of them, who witnessed the event;
- d) the name, address and business hours telephone number of every other person (of whom the licensee is aware) who witnessed the event, unless the licensee has been unable to obtain that information after making reasonable effort;
- e) action taken by the licensee in relation to the event, including any follow-up contact with any complainants;
- f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and
- g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the licensee. The licensee must provide such further details to the EPA within the time specified in the request.

R4 Other reporting conditions

R4.1 Daily Complaints Reports

(a) The licensee must submit by 2:00pm each business day a report to the EPA that provides details of all complaints received in relation to construction activities regulated by the licence on the telephone complaints line required by Condition M5 or through any other means.

(b) The report must:

1. Be submitted to the email address nominated by the EPA; and
2. Include a unique identifier number for each complainant together with the details required by condition M4.2; and
3. Include date and time as reported by the complainant of the event that is the subject of the complaint; and
4. Include an outline of the work or activity that is the subject of the complaint; and
5. Include the complaints received between 12am and 12pm; and
6. If the works have been carried out under Conditions L4.2, L4.3, L4.4, L4.6, L4.7, L4.9, or L4.11 the report must include a copy of any assessments required by these conditions unless previously provided to the EPA, and details of how the requirements of these conditions have been met.

Environment Protection Licence

Licence - 20971



(c) The licensee is not required to submit a report for any reporting period during which no complaints have been received.

R4.2 Noise and Vibration Reports

- (a) Upon request of an authorised officer, the licensee must submit a Preliminary Investigation Report to the EPA in respect of any noise or vibration monitoring undertaken in accordance with the requirements of Condition M5.5
- (b) The Preliminary Investigation Report must be submitted to the EPA by 4:30pm on the afternoon of the next working day following any noise or vibration monitoring.
- (c) The Preliminary Investigation Report must:
 - 1. Include numerical and/or graphical representation of the noise and vibration monitoring results; and
 - 2. Highlight any detected exceedance of noise limits or noise management levels specified in this licence, relevant noise modelling and any relevant noise guidelines.

R4.3 In the event of any exceedance of noise limits or noise management levels, the licensee must:

- (a) Modify activities and implement all reasonable and feasible measures to prevent a recurrence of the exceedance; and
- (b) Submit a Follow-Up Investigation Report to the EPA within 5 working days of any noise or vibration monitoring having been undertaken (unless otherwise approved by the EPA).
- (c) The Follow-Up Investigation Report must include:
 - 1. Confirmation of whether noise monitoring has been undertaken in accordance with AS2659 and the compliance monitoring guidance provided in the INP; and
 - 2. Confirmation of whether vibration monitoring has been undertaken in accordance with the guidance provided in *Assessing Vibration: a technical guideline (DEC 2006)*.
 - 3. Details of the prevailing meteorological conditions during the period when the monitoring was undertaken; and
 - 4. A map of each noise and vibration monitoring location in relation to the noise source, including relevant distances; and
 - 5. Numerical and graphical representation of the noise and vibration monitoring results; and
 - 6. An analysis of the noise and vibration monitoring results; and
 - 7. Details of any remedial action taken in relation to the matter; and
 - 8. In cases not the subject of remedial action, detailed justification of the decision not to undertake remedial action.

Environment Protection Licence

Licence - 20971



7 General Conditions

G1 Copy of licence kept at the premises or plant

- G1.1 A copy of this licence must be kept at the premises to which the licence applies.
- G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.
- G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Other general conditions

G2.1 Environmental Induction

- (a) The licensee must ensure that before any construction work is undertaken, all personnel involved in undertaking that work receive environmental induction training.
- (b) The induction training must:

1. Clearly identify the location of all noise sensitive receivers likely to be affected by noise or vibration generated during the course of the work undertaken by those personnel; and
2. Highlight the licence requirements to minimise noise and vibration impacts on noise sensitive receivers.

8 Special Conditions

E1 Alternative Respite Scheduling

E1.1 High Noise Impact Works – Victoria Cross, Barangaroo, Martin Place and Pitt Street Worksites

If internal noise levels are predicted at the receiver to be greater than Leq(15 minute) 60dB(A) surrounding the worksites listed in Condition L4.6(a), the licensee must:

- (a) Consult with all affected noise sensitive receivers likely to experience internal noise levels greater than Leq(15 minute) 60 dB(A) inclusive of a 5dB(A) penalty if rock breaking or any other annoying activity likely to result in regenerated (ground-borne) noise or a perceptible level of vibration is planned between 7am and 8pm; and
- (b) Determine appropriate alternative hours of respite so that construction noise (including ground-borne noise) does not exceed internal noise levels of Leq(15 minute) 60 dB(A) for at least 6.5 hours between 7am and 8pm, of which at least 3.25 hours must be below Leq(15 minute) 55 dB(A).

Note: this condition does not apply to noise associated with the cutting surface of a TBM as it passes underneath receivers.

Environment Protection Licence

Licence - 20971



E1.2 In relation to determining the alternative respite hours as per Condition E1.1, the following applies:

(a) Affected noise sensitive receivers must be identified through a construction noise and vibration impact assessment undertaken by a suitably qualified professional experienced in assessing the impacts of noise and vibration from civil engineering works; and

(b) The licensee must identify options for respite periods based on:

1. initial consultation with affected noise sensitive receivers to determine options for alternative respite periods followed by;
2. a survey of the affected noise sensitive receivers to determine the preferred option for alternative respite periods.

(c) The licensee must analyse the results of the consultation and survey under Condition E1.2(b) and provide the analysis and justification for the preferred option to the EPA for review at least 3 weeks prior to implementation; and

(d) The licensee must notify the affected noise sensitive receivers of the alternative respite periods not less than 5 days and not more than 14 days before implementation. The notification must be by letterbox drop or email and be detailed on the project website. The notification must outline the justification for implementing the adopted respite periods.

Note: For the avoidance of doubt, Condition E2 (below) does not apply in conjunction to the requirements of Condition E1. For any works outside of the periods specified in the conditions of this licence, a licence variation must be submitted to the EPA for consideration.

E2 Community Agreements

E2.1 Requirements for community agreements

Any community agreement to permit works to be undertaken outside of standard construction hours (OOHW) under Condition L4.8 must:

(a) be prepared and implemented in accordance with the relevant sections of the Interim Construction Noise Guidelines (DEC 2009), the Industrial Noise Policy (EPA 1999) and AS2346-2010 Guide to noise and vibration control on construction, demolition and maintenance sites;

(b) detail the following:

1. the actual works proposed;
2. any expected impacts in clear, simple English based on noise modelling;
3. the expected duration of the works;
4. any expected benefits for receivers;
5. any other concurrent OOHW that will be occurring; and
6. any other OOHW that will be occurring on the nights preceding and following the proposed works or, if the proposed work precedes or follows a weekend period, any other OOHW that will be occurring on the weekend.

(c) demonstrate that the noise sensitive receivers party to the agreement understand the nature of the works and any predicted impacts; and

Environment Protection Licence

Licence - 20971



(d) be kept for the duration of the agreement and made available to an EPA authorised officer on request.

E2.2 Consultation and Engagement

In relation to consulting and engaging with noise sensitive receivers for a community agreement, the following applies:

- (a) all noise sensitive receivers predicted by modelling to be impacted by noise greater than 5 dB(A) above RBL must be consulted on any proposed community agreement. This includes noise sensitive receivers that have declined to participate in previous agreements;
- (b) all proposed agreements must include details for interpreting services for languages other than English where required; and
- (c) If a licensee is unable to contact a noise sensitive receiver after three attempts, including leaving "sorry I missed you" cards explaining the reason for the visit and requesting a return phone call, then the licensee will note that the receiver could not be contacted and the receiver will not be considered to have either agreed or disagreed; and
- (d) records of the attempts to contact the receiver will be kept by the licensee.

E2.3 Agreement thresholds

(a) The EPA will consider agreements reached between the licensee and a substantial majority of both:

- 1. noise sensitive receivers predicted to by the licensee to be impacted by noise levels exceeding those specified in Condition L4.2(a) and L4.2(b); and
- 2. noise sensitive receivers predicted to by the licensee to be impacted by noise levels above a highly noise affected level of 75dB(A).

E2.4 Community agreements attained by phone

Where a community agreement has been reached with noise sensitive receivers over the phone, the following applies:

- (a) the phone script used to describe the proposed agreement (including information required under Condition E2.1(b)) is to be provided to the EPA with the community agreement for approval; and
- (b) the script must include a clear question requesting receiver agreement to the proposal; and
- (c) detailed records are to be maintained by the licensee of all community agreement phone conversations and must be maintained for the duration of the community agreement; and
- (d) any noise sensitive receiver who requests a copy of the phone agreement must be supplied with one.

E2.5 Notification

All noise sensitive receivers must be advised of any community agreement that has been attained in writing within seven days of the agreement being finalised and must:

Environment Protection Licence

Licence - 20971



- (a) include a website link to the project website, specifically to a summary of the approved project agreement; and
- (b) include details of the licensees complaints line as requires by condition M6; and
- (c) include details of the EPAs Environment Line.

The notification requirements in Condition 4.13 apply to community agreements.

E2.6 Monitoring

Validation monitoring must be undertaken for any works that are the subject of a community agreement and must:

- (a) be performed by a suitably qualified and experienced person; and
- (b) be performed on at least the first 2 nights where OOHW will be undertaken.

E2.7 If validation monitoring undertaken under Condition E2.6 shows that noise levels are higher than those predicted by any noise modelling undertaken as part of the community agreement, work practices must be modified so that measured noise levels do not exceed predicted levels.

E2.8 A validation monitoring plan must be submitted to the EPA for approval as part of the community agreement documentation prior to any OOHW occurring.

E3 Shipping in bulk

E3.1 Within one (1) month of the commencement of shipping in bulk activities at the Clyde Barging Facility (CBF) noise monitoring is to be undertaken at locations representative of the nearest sensitive receivers to the north and north east of the CBF generally in accordance with the requirements of condition R4.3.

The monitoring shall be undertaken when:

- (i) Wind speeds are less than 3m/s at 10m AGL and no rain; and,
- (ii) During barge arrival or departure activities; and,
- (iii) During typical unloading activities including front end loader / excavator removing spoil from the barge and placing into trucks and truck arrival / manoeuvring / departure operations; and,
- (iv) During the evening or night time period.

NOTE: The duration of monitoring will be determined by the capture of adequate data to satisfy E3.1(ii), (iii) and (iv) above.

The monitoring and report shall detail:

Environment Protection Licence

Licence - 20971



(v) Ambient noise levels (LAFmax, LAeq,15min and LAF90,15min), and the contribution only noise level from the CBF activities using the LAFmax and LAeq,15min parameter; and,

(vi) The activities contributing to the contribution noise levels from the CBF activities; and,

(vii) An evaluation of the contribution noise levels against relevant Noise Management Levels (NMLs) in the Interim Construction Noise Guideline; and,

(viii) Where NMLs are exceeded an evaluation of additional feasible and reasonable noise mitigation measures to seek to achieve the NMLs shall be undertaken.

The report shall be submitted to the EPA within six (6) weeks of commencement of barging activities.

E3.2 Prior to the commencement of shipping in bulk operations involving the despatch or receipt of spoil, a detailed hazard risk analysis of the activities shall be undertaken. The analysis shall identify:

- (i) all environmental hazards associated with the activity; and,
- (ii) the risk of the hazard resulting in a pollution incident; and,
- (iii) the control measures to be applied to minimise the risk of a pollution incident to greatest extent practicable; and,

(iv) pollution incident response procedures and measures specific to the identified hazards and risk.

The analysis should be undertaken by a suitably qualified professional(s) and shall be implemented by the licensee prior to commencement of barging activities. The analysis is to be submitted to EPA prior to commencement of barging activities.

NOTE: The licensee's Pollution Incident Response Management Plan (PIRMP) should also be reviewed and modified as necessary to identify and respond to pollution incidents specific to shipping in bulk activities to meet obligation imparted on the licensee by Parts 5.7 and 5.7A of the Protection of the Environment Operations Act 1997.

E3.3 Prior to commencement of wharf / ramp construction activities at the Clyde Barging Facility and Blues Point, a detailed analysis of the activities is required that identifies:

- (i) Construction activities that have the potential to impact the environment including, but not limited to, the mobilisation / dispersion of sediment, management of potential acid sulphate soils, bank destabilisation and the potential for out of standard hours work and associated noise impacts; and,
- (ii) Suitable control measures to ensure that environmental impacts are minimised to the extent that is practicable; and,
- (iii) Suitable monitoring and inspection regimes to ensure that environmental impacts from the works are identified, monitored and rectified as required, including but not limited to water quality monitoring, inspection of the integrity of control measures; visual inspections for turbid plumes and oil and grease sheens; and,
- (iv) The analysis must be completed prior to commencement of wharf /ramp construction activities and be submitted to EPA within one month of commencement of wharf / ramp construction activities. All activities and controls must be consistent with the planning consent and other approvals in place for these works.

E4 Crushing, grinding and separating works - Barangaroo worksite

E4.1 The scheduled activity of "crushing, grinding and separating" permitted under Condition A1.2 is restricted to the scope and location approved in License Variation Notice No. 1580989 and shall only be undertaken during hours permitted in condition L4.1.

Environment Protection Licence

Licence - 20971

E5 Special Dictionary

E5.1

Term	Meaning
Acoustic enclosure	can include an engineered and designed shed or enclosure, with airborne noise pathways minimised and treated where feasible and reasonable, endeavouring to achieve the Noise Management Levels in the Interim Construction Noise Guideline (DECC, 2009). Example treatments include noise curtains, acoustic barriers or fast operating doors to limit breakout noise from enclosures.
AS 2659	means Australian Standard AS 2659.1 – 1988 : Guide to the use of sound measuring equipment – Portable sound level meters
Business day	excludes Saturdays, Sundays, public holidays and rostered days off (RDOs)
Operating hours	means hours during which any construction-related works or activities are being undertaken, including outside of standard construction hours
Construction work	includes all construction work and activities, and all construction-related work and activities, undertaken on the premises.
Day	the period from 0700 and 1800 h (Monday to Saturday) and 0800 to 1800 h (Sundays and Public Holidays) as per the definition in the New South Wales Government's Industrial Noise Policy.
Essential utility services	means telephone, electricity, gas and water services.
Evening	the period from 1800 to 2200 h as per the definition in the New South Wales Government's Industrial Noise Policy.
Feasible Noise Abatement Measures	Means actions to reduce noise levels that are capable of being put into practice or of being engineered and are practical to build given project constraints such as safety and maintenance requirements
Haulage and delivery of spoil and material	Including materials handling, tunnel logistics, segment aggregate deliveries, tunnelling equipment transportation, concrete deliveries, and spoil truck and barge movements and layby that are essential to be undertaken outside of standard construction hours outlined in Condition L4.1 to facilitate 24/7 tunnelling activities and excavation within an acoustic enclosure.
High noise impact activities and works	means jack hammering, rock breaking or hammering, pile driving, vibratory rolling, cutting of pavement, concrete or steel or other work occurring on the surface that generates noise with impulsive, intermittent, tonal or low frequency characteristics.
INP	means the New South Wales Industrial Noise Policy published by the EPA in January 2000.
Impulsive noise	has the same meaning as in section 4.2 of the INP.
Interim Construction Noise Guidelines (ICNG)	Interim Construction Noise Guidelines (DECC, July 2009).
Intermittent noise	has the same meaning as in section 4.2 of the INP.

Environment Protection Licence

Licence - 20971



Out of hours	means hours outside those prescribed by condition L4.1.
Noise Management Level (NML)	has the same meaning as "Airborne Noise Management Levels" in the Interim Construction Noise Guideline (DECC 2009)
Night	the period from 2200 to 0700 h (Monday to Saturday) and 2200 to 0800 h (Sundays and Public Holidays) as per the definition in the New South Wales Government's Industrial Noise Policy.
Noise sensitive receiver	Land uses that are sensitive to noise, such as residential areas, churches, schools and recreation areas.
Practicable and reasonable	has the same meaning as 'reasonable and feasible' in the INP.
Rating Background Level (RBL)	the same meaning as in the Interim Construction Noise Guideline (DECC 2009)
Reasonable noise abatement measures	Means those feasible noise abatement actions that are considered reasonable in the circumstances, based on a judgement that the overall noise benefits outweigh the overall adverse social economic and environmental effects, including the cost of measure. To make such a judgement, consideration is to be given to noise level impacts, noise mitigation benefits, cost effectiveness of noise mitigation and community views.
Residence	A lawful and permanent structure erected in a land-use zone that permits residential use (or for which existing use rights under the EP&A Act apply) where a person/s permanently reside and is not, nor associated with, a commercial undertaking such as caretakers quarters, hotel, motel, transient holiday accommodation or caravan park.
Soil and water management works	include all measures to control erosion and sediment such as sediment filters, drains, ponds, basins, stormwater run on and runoff controls, site stabilisation works, temporary water crossings and vehicular access controls.
Tonal noise	the same meaning as in section 4.2 of the INP.
Tunnel	an artificial underground passage or excavation generally in a horizontal direction.
Tunnelling activities	activities involved in the horizontal excavation of a tunnel including the operation of a tunnel boring machine, road header, surface miner and the like (excluding rock hammering between 10pm to 7am in noise sensitive areas where the night time ground-borne noise objectives in the ICNG are predicted to be, or are exceeded) within a tunnel, and associated tunnel support works.
Tunnel support works	include, but are not necessarily limited to, rock anchoring/bolting, reinforcement, shotcreting, grouting, segment installation within a tunnel that are required to be undertaken outside of standard construction hours outlined in Condition L4.1 in order to maintain 24/7 tunnelling activities.
Tunnelling ancillary surface support works	surface works and activities that are required to be undertaken outside of standard construction hours outlined in Condition L4.1 in order to maintain 24/7 tunnelling activities including, but not necessarily limited to, plant and equipment maintenance, and spoil, water, grout and ventilation management.

Environment Protection Licence

Licence - 20971

Dictionary

General Dictionary

3DGM [in relation to a concentration limit]	Means the three day geometric mean, which is calculated by multiplying the results of the analysis of three samples collected on consecutive days and then taking the cubed root of that amount. Where one or more of the samples is zero or below the detection limit for the analysis, then 1 or the detection limit respectively should be used in place of those samples
Act	Means the Protection of the Environment Operations Act 1997
activity	Means a scheduled or non-scheduled activity within the meaning of the Protection of the Environment Operations Act 1997
actual load	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
AM	Together with a number, means an ambient air monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
AMG	Australian Map Grid
anniversary date	The anniversary date is the anniversary each year of the date of issue of the licence. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
annual return	Is defined in R1.1
Approved Methods Publication	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
assessable pollutants	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
BOD	Means biochemical oxygen demand
CEM	Together with a number, means a continuous emission monitoring method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .
COD	Means chemical oxygen demand
composite sample	Unless otherwise specifically approved in writing by the EPA, a sample consisting of 24 individual samples collected at hourly intervals and each having an equivalent volume.
cond.	Means conductivity
environment	Has the same meaning as in the Protection of the Environment Operations Act 1997
environment protection legislation	Has the same meaning as in the Protection of the Environment Administration Act 1991
EPA	Means Environment Protection Authority of New South Wales.
fee-based activity classification	Means the numbered short descriptions in Schedule 1 of the Protection of the Environment Operations (General) Regulation 2009.
general solid waste (non-putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997

Environment Protection Licence

Licence - 20971

flow weighted composite sample	Means a sample whose composites are sized in proportion to the flow at each composites time of collection.
general solid waste (putrescible)	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
grab sample	Means a single sample taken at a point at a single time
hazardous waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
licensee	Means the licence holder described at the front of this licence
load calculation protocol	Has the same meaning as in the Protection of the Environment Operations (General) Regulation 2009
local authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
material harm	Has the same meaning as in section 147 Protection of the Environment Operations Act 1997
MBAS	Means methylene blue active substances
Minister	Means the Minister administering the Protection of the Environment Operations Act 1997
mobile plant	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
motor vehicle	Has the same meaning as in the Protection of the Environment Operations Act 1997
O&G	Means oil and grease
percentile [in relation to a concentration limit of a sample]	Means that percentage [eg.50%] of the number of samples taken that must meet the concentration limit specified in the licence for that pollutant over a specified period of time. In this licence, the specified period of time is the Reporting Period unless otherwise stated in this licence.
plant	Includes all plant within the meaning of the Protection of the Environment Operations Act 1997 as well as motor vehicles.
pollution of waters [or water pollution]	Has the same meaning as in the Protection of the Environment Operations Act 1997
premises	Means the premises described in condition A2.1
public authority	Has the same meaning as in the Protection of the Environment Operations Act 1997
regional office	Means the relevant EPA office referred to in the Contacting the EPA document accompanying this licence
reporting period	For the purposes of this licence, the reporting period means the period of 12 months after the issue of the licence, and each subsequent period of 12 months. In the case of a licence continued in force by the Protection of the Environment Operations Act 1997, the date of issue of the licence is the first anniversary of the date of issue or last renewal of the licence following the commencement of the Act.
restricted solid waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
scheduled activity	Means an activity listed in Schedule 1 of the Protection of the Environment Operations Act 1997
special waste	Has the same meaning as in Part 3 of Schedule 1 of the Protection of the Environment Operations Act 1997
TM	Together with a number, means a test method of that number prescribed by the <i>Approved Methods for the Sampling and Analysis of Air Pollutants in New South Wales</i> .

Environment Protection Licence

Licence - 20971



TSP	Means total suspended particles
TSS	Means total suspended solids
Type 1 substance	Means the elements antimony, arsenic, cadmium, lead or mercury or any compound containing one or more of those elements
Type 2 substance	Means the elements beryllium, chromium, cobalt, manganese, nickel, selenium, tin or vanadium or any compound containing one or more of those elements
utilisation area	Means any area shown as a utilisation area on a map submitted with the application for this licence
waste	Has the same meaning as in the Protection of the Environment Operations Act 1997
waste type	Means liquid, restricted solid waste, general solid waste (putrescible), general solid waste (non - putrescible), special waste or hazardous waste

Ms Claire Miles

Environment Protection Authority

(By Delegation)

Date of this edition: 28-September-2017

Environment Protection Licence

Licence - 20971

End Notes

2	Licence varied by notice	1559155 issued on 27-Nov-2017
3	Licence varied by notice	1559546 issued on 08-Dec-2017
4	Licence varied by notice	1560259 issued on 22-Dec-2017
5	Licence varied by notice	1561132 issued on 25-Jan-2018
6	Licence varied by notice	1562663 issued on 09-Mar-2018
7	Licence varied by notice	1563535 issued on 06-Apr-2018
8	Licence varied by notice	1563667 issued on 20-Apr-2018
9	Licence varied by notice	1564051 issued on 01-May-2018
10	Licence varied by notice	1566174 issued on 20-Jun-2018
11	Licence varied by notice	1567155 issued on 19-Jul-2018
12	Licence varied by notice	1567615 issued on 06-Aug-2018
13	Licence varied by notice	1568214 issued on 08-Aug-2018
14	Licence varied by notice	1568701 issued on 30-Aug-2018
15	Licence varied by notice	1569191 issued on 30-Aug-2018
16	Licence varied by notice	1569575 issued on 06-Sep-2018
17	Licence varied by notice	1569758 issued on 25-Sep-2018
18	Licence varied by notice	1570695 issued on 03-Oct-2018
19	Licence varied by notice	1571201 issued on 18-Oct-2018
20	Licence varied by notice	1571469 issued on 24-Oct-2018
21	Licence varied by notice	1571521 issued on 26-Oct-2018
22	Licence varied by notice	1571610 issued on 02-Nov-2018
23	Licence varied by notice	1572205 issued on 13-Nov-2018
24	Licence varied by notice	1572986 issued on 04-Dec-2018
25	Licence varied by notice	1573386 issued on 10-Dec-2018
26	Licence varied by notice	1573552 issued on 12-Dec-2018
27	Licence varied by notice	1574895 issued on 18-Jan-2019
28	Licence varied by notice	1575670 issued on 05-Feb-2019

Environment Protection Licence

Licence - 20971

29	Licence varied by notice	1575988 issued on 13-Feb-2019
30	Licence varied by notice	1576774 issued on 01-Mar-2019
31	Licence varied by notice	1576888 issued on 04-Mar-2019
32	Licence varied by notice	1577281 issued on 18-Mar-2019
33	Licence varied by notice	1578129 issued on 11-Apr-2019
34	Licence varied by notice	1579637 issued on 16-May-2019
35	Licence varied by notice	1580989 issued on 24-Jun-2019
36	Licence varied by notice	1585029 issued on 16-Sep-2019
37	Licence varied by notice	1588959 issued on 02-Dec-2019
38	Licence varied by notice	1590518 issued on 11-Feb-2020
39	Licence varied by notice	1592723 issued on 13-Mar-2020
40	Licence varied by notice	1593078 issued on 20-Mar-2020
41	Licence varied by notice	1593580 issued on 03-Apr-2020
42	Licence varied by notice	1593797 issued on 09-Apr-2020
43	Licence varied by notice	1594757 issued on 12-May-2020
44	Licence varied by notice	1595151 issued on 25-May-2020
45	Licence varied by notice	1595941 issued on 09-Jun-2020
46	Licence varied by notice	1596560 issued on 26-Jun-2020
47	Licence varied by notice	1597281 issued on 09-Jul-2020
48	Licence varied by notice	1597503 issued on 03-Aug-2020
49	Licence varied by notice	1598538 issued on 07-Aug-2020