



RICHARD CROOKES
CONSTRUCTIONS

WEE HUR GIBBONS ST
1235

AIR QUALITY AND ODOUR MANAGEMENT PLAN

30 March 2021

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1 DOCUMENT INFORMATION

CLIENT	Richard Crookes Constructions (RCC)
PROJECT	Wee Hur Gibbons St
RCC PROJECT NUMBER	1235
REPORT TITLE	Wee Hur Gibbons St – Air Quality and Odour Management Plan (AQOMP)
DATE	30 th March 2021
REVISION NUMBER	Revision 0

2 PROJECT OVERVIEW

Wee Hur Gibbons St is a 19-storey (plus roof) development consisting of a 419-bed student accommodation facility in Redfern. The site is located at 13-23 Gibbons Street, Redfern at the southern periphery of the Sydney CBD, within the City of Sydney Local Government Area. The site is situated on the eastern side of Gibbons Street at the corner of Gibbons Street and Margaret Street. The site is located approximately 200m to the south-east of Redfern Railway Station.

The site contains three road frontages including Gibbons Street to the West, Margaret Street to the South and William Lane to the North East.

2.1 SITE LOCATION



2.2 AQOMP OBJECTIVE

This document is an operational AQOMP which provides the framework necessary to implement the required management measures associated with the proposed construction works. Once implemented the objective of the management measures will be to ensure that the construction works on the site can be carried out without significant adverse impact on the air quality or the health of the site workers and neighbouring residence.

RCC notes that this AQOMP will focus on mitigating and managing air quality and odour issues associated with the construction works proposed at the site.

The primary objective of the AQOMP is to provide a management framework to mitigate potential air quality and odour risks associated with construction works. The objectives can be summarised as follows:

- Prevent, reduce and effectively manage potential impacts to the air quality resulting from excavation and construction works, stockpiling, removal of contaminated and acid

sulfate soils, material handling and associated spoil disposal. These measures include but are not limited to the following:

- Staged excavation to limit the surface area of exposed odorous material;
 - Application of odour suppressants;
 - Effective covering of stockpiles and truckloads of excavation spoil; and
 - Expedited removal of odorous material from the development to a facility legally able to accept those wastes;
- Ensure that air quality and odour management is undertaken in accordance with relevant legislative and policy requirements
- Includes proactive and reactive management strategies, key performance indicators, monitoring measures, record keeping, response mechanisms, contingency and compliance reporting measure.
- Promote air quality and odour awareness amongst employees and contractors.

3 MANAGEMENT OF AIR QUALITY AND ODOUR

3.1 POTENTIAL AIR QUALITY AND ODOUR ISSUES

The potential air quality and odour issues associated with the proposed construction works include:

- Air emissions from exposed soils, asbestos dust, groundwater, plant and equipment and dust generated during construction work.
- Impact of noise and air emissions from plant, equipment and vehicles used in the project and associated transport of infrastructure;
- Potential impacts to terrestrial and aquatic ecology within proximity to the work area and the surrounding areas;
- Disturbance to, and release of potentially contaminated soil and groundwater to the local environment;
- Potential odour/ vapour impacts may occur as a result of the release of odours from impacted soils / groundwater / gases and exposure from unexpected finds, hydrocarbon hotspots and soil gas pathways within any uncontrolled fill.
- Disruption to amenity of any residents and other land users in the vicinity of the site.

Ambient Air Levels will likely vary as construction works proceed. Construction works will also be conducted up to the site boundaries in some areas and odour/ soil gas will be subject to changes in wind direction and weather conditions. The application and effectiveness of odour suppressant mitigation will need to be well managed under the discretion of the Principal Contractor and the air quality consultant.

3.2 AIR QUALITY AND ODOUR MANAGEMENT

The remaining sections of this document set out the air quality and odour management activities and management measures, which will be implemented during the Construction works at 13-23 Gibbons St, Redfern NSW. The Principal Contractor will ensure that personnel responsible for undertaking the works are aware of their roles and responsibilities detailed in this AQOMP.

3.2.1 GENERAL STRUCTURE OF AIR QUALITY AND ODOUR MANAGEMENT

Individual management measures have been prepared to address the issues listed in Table 1 below. The numbering order should not be considered as a ranking of priority of each element as each element will have some overlaps in procedures and monitoring measures. Each plan is comprised of several elements, each with an overall associated management policy, mechanisms of policy implementation, proposed monitoring measures and potential reactive actions as described in Table 1 below.

3.3

TABLE 1: AIR QUALITY MANAGEMENT PROCEDURES

ELEMENT	AIR QUALITY
Performance Objectives	<p>The objective of this management measure is not to generate any odours or gasses and to adopt the necessary management strategy and PPE if presented with the occurrence to minimise the impacts of odours and/or vapours if encountered.</p> <p>Avoid or minimise the potential for odour and/or vapour emissions during the handling of exposed soils.</p> <p>Maintain plant and equipment such that exhaust emissions are minimised. Avoid or minimise disruption to amenity of residents and other land users in the vicinity of site works.</p>
Proactive Management Actions	<p>Use of surfactant spray (onsite in proximity of the construction works and at the site boundary/fences) is required for odour suppressant during works (this is up to the discretion of the Project Manager and the air quality consultant).</p> <p>Heavy equipment and vehicles will be appropriately maintained to minimise exhaust emissions.</p> <p>Appropriate methods of dust suppression will be implemented, such as ensuring construction materials remain moist to ensure dust is minimised during works.</p> <p>Evaluate weather conditions prior to works commencing and during any change in wind direction.</p> <p>Cease works if dust or odour generation is excessive.</p> <p>Covering of any stockpiles that are to remain for greater than two days or if weather forecasts predict strong winds; with plastic or Geotechnical fabric material.</p> <p>All dust/odour control measures will always be kept in good operating condition and functional, with regular maintenance.</p> <p>All loads are to be covered and appropriately fitted with tarpaulins to contain dust and/or odour during transport.</p> <p>A complaints register will be established and maintained to receive and address complaints from the community regarding the detection of nuisance odour during the works.</p> <p>Residents in the vicinity of the proposed works will be informed of potential dust/odour impacts prior to the commencement of works.</p>
Key Performance Indicators	<p>No complaints from location residents, surrounding businesses or site personnel. Goal of nil complaints relating to dust quality issues.</p> <p>All complaints will be responded to within 2 business days</p> <p>No onsite observation of dust generation during construction works by Project team.</p> <p>No visual evidence of exhaust smoke during idle of equipment. No visual evidence of tracked material on public roads.</p> <p>A reduction in the number of complaints received in relation to air quality each month.</p>
Monitoring Measures	<p>Implementation of visual monitoring measures of dust, material tracking, truck tarping, water spray use, exhaust plumes and stockpile covering. If unexpected fines protocol detects contaminants a review of air borne testing is to be undertaken.</p>
Responsibility	<p>The Principal Contractor is responsible for ensuring that if a monitoring measures is required to be implemented by appropriately trained/qualified staff. This program may be sub-contracted out to a specialist sub-consultant as required. The Principal Contractor is to ensure responsible personnel are suitably qualified.</p>
Compliance Reporting Measures	<p>Maintenance of records on site of visual and Asbestos monitoring measures undertaken if required.</p>

Reactive Action (as required)	<p>If required replace or repair emission control devices. Provide equipment to enable wetting of exposed soils if required. Should excessive dust be generated, works will also cease, until weather conditions improve and/or additional dust suppression measures have been implemented.</p> <p>The use of PPE with appropriate filters, inside the works zone will be mandatory, if PID readings exceed the limits set by the air quality consultant for the Site/area. If the level set by the air quality consultant is exceeded, the following action shall be undertaken:</p> <ul style="list-style-type: none">• Backfill any excavation or cover with plastic sheeting;• Temporarily cease works until levels drop and• Increase the use of suppressant near the construction.
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4 RCC MANAGEMENT SYSTEM

4.1 ROLES AND RESPONSIBILITIES

The following sections set out the organisational structure for the project:

4.1.1 PROJECT ORGANISATIONAL STRUCTURE

All personnel including the Consultants, Contractors, Subcontractors and all other personnel associated with undertaking construction works on the project at 13-23 Gibbons St Redfern, ultimately report to the Principal Contractor.

The Principal Contractor will be responsible for implementing this AQOMP. This will specifically involve monitoring measures of the air quality and odour performance of the works and ongoing compliance with legislative requirements, this AQOMP, and all other associated air quality and odour management documentation, development of a construction management plan (CMP), operational and post- construction monitoring and compliance reporting measures.

4.1.2 PARTIES AND RESPONSIBILITIES

The parties involved with, and their responsibilities during, the air quality management of the works are provided in Table 2 below:

4.1.2.1 TABLE 2: PROJECT PARTIES AND RESPONSIBILITIES

PARTY	RESPONSIBILITY	REPORTS TO
The Principal Contractor Richard Crookes Constructions	<ul style="list-style-type: none"> Ensure all works are implemented in accordance with the AQOMP. Promote awareness of appropriate air quality and odour management and occupation health and safety (OHS) practices to the Project Manager. Ensure the Project Manager is aware of the AQOMP and site-specific issues. Review risks and identify potential opportunities and issues with the project. Monitor and inspect activities for compliance with relevant air quality and odour requirements, including ensuring suitable management plans have been submitted and approved prior to undertaking works. Ensure air quality and odour contingencies and non-compliances are reported promptly and investigated. Undertake air quality and odour audits on the project at a frequency deemed appropriate to the length of the project. Periodically review the performance of the Project Manager in meeting the objectives of their AQOMP via regular audits. The audits will review the Project Manager's activities to ensure that air quality and odour hazards have the appropriate mitigation controls in place. Improvement requests and non-compliances will be monitored, and reactive action undertaken. Maintain an air quality and odour audit register to record close out of any actions issued. 	The Client/Project Manager

<p>The Client/Project Manager</p> <p>IGLU Student Accommodation</p>	<ul style="list-style-type: none"> • The Client/Project Manager is a primary contact overseeing the day to day operations at the Site. • Primary contact for all personnel in relation to site works and air quality and odour management • Review risks and identify potential opportunities and issues with the project. • Monitor and inspect activities for compliance with relevant air quality and odour requirements, including ensuring suitable management plans have been submitted and approved prior to undertaking works. • Ensure air quality and odour contingencies and non-compliances are reported promptly and investigated. 	<p>IGLU Student Accommodation</p>
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<p>Air Quality and Odour Specialist / Engineer</p> <p>Air Quality and Odour Strategies</p>	<ul style="list-style-type: none"> • Comply with this AQOMP. • Provide advice where required to the Principal Contractor in relation to air quality and odour issues associated with the works, if required. • Responsible for implementing this AQOMP and all required air quality and odour controls. • Undertake onsite and offsite air monitoring measures. • Conduct air quality and odour contingency investigations, if requested by the Project Manager. • Demonstrate an understanding and management of the potential air quality and odour impacts associated with the project. • Review risks and identify potential opportunities and issues with the project. Ensure all Subcontractors under their control are appropriately informed of the relevant components of air quality and odour management documentation. • Report all air quality and odour contingencies, hazards, non-compliances and near misses to the Project Manager immediately. • Implement reactive action response mechanisms to air quality and odour contingencies and non-compliances in consultation with the Project Manager. • Provide a validation report at the end of the project for review of the Site Auditor. 	<p>The Principal Contractor</p>
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<p>Sub-Contractors</p>	<ul style="list-style-type: none"> • Implement and comply with relevant components of this AQOMP. • Report all air quality and odour contingencies, hazards, non-compliances and near misses to the Principal Contractor immediately. • Implement reactive action response mechanisms to air quality and odour contingencies and non-compliances as required by the Contractor. 	<p>The Principal Contractor</p>
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4.2 IMPLEMENTATION OF AQOMP

4.2.1 WHS SITE INDUCTION

All personnel including the Principal Contractor's staff and subcontractors who will be working on the project or require regular access to the sites will be required to undertake training and site inductions including air quality and odour requirements as required by the Principal Contractor. All personnel should demonstrate an understanding of potential air quality and odour issues and the measures that will be implemented to protect the environment and local community, as detailed in this document.

4.2.2 AQOMP INDUCTION

The AQOMP awareness induction will cover:

1. Outlining the objective and purpose of the works; and
2. Contents of the AQOMP and their (the workers) responsibility.

All site workers will sign the AQOMP induction register acknowledging receipt and understanding of this AQOMP. All induction sessions will be recorded in the induction register.

4.2.3 DAILY TOOLBOX MEETINGS

The Principal Contractor will also conduct weekly toolbox meetings with all personnel to review management procedures and identify / discuss daily site conditions and potential hazards. Site inductions and toolbox talks will highlight specific air quality and odour requirements and activities being undertaken at the worksite each day.

A record of issues covered in weekly toolbox meetings should be maintained for future audit.

4.2.4 PERSONAL PROTECTIVE EQUIPMENT

All site personnel will be provided with, utilise, and be appropriately trained in the requirements of personal protective equipment (PPE). PPE requirements will depend on the activity or situation, but may include the following:

- High visibility clothing;
- Protective clothing and footwear;
- Eye protection;
- Respirable (half-face) masks as required;
- Hard hat as required (i.e. in the vicinity of the working excavator or other overhead plant); and
- Sun protection as required (long sleeves, sunscreen, hat or hard hat fitted with wide brimmed sun protection).

Personnel will be trained in the requirements and use of PPE to an appropriate level according to responsibilities.

PPE requirements should be detailed in the Safe Work Method Statements (or similar) which will be provided to the Principal Contractor for review and endorsement. Additional PPE will be required to carry out some aspects of the construction process and the PPE outline above should only be considered as the basic requirements. Additional PPE will be required if works are to be conducted in asbestos work environs.

4.3 LEGISLATION

The following is a summary of statutory requirements to be satisfied by RCC. Table 3 below includes the required permits, licenses and consents under the relevant acts, regulation or policy.

4.3.1 TABLE 3: SUMMARY OF ACTS, REGULATIONS AND GUIDELINES APPLICABLE TO PROJECT

ACT/ REGULATION/ PLANNING POLICY	KEY PROJECT REQUIREMENTS	JURISDICTION
<i>Protection of the Environment Operations Act 1997 (POEO Act) and Regulations</i>	Undertake all activities to minimise harm to the environment (in particular pollution of air and water and noise emissions) and not cause an offence under the Act. Discharge to stormwater may require a license under the Act. Some transporters of waste are required to be licensed under the Act. Some waste disposal/processing facilities are required to be licensed under the Act.	State
<i>Protection of the Environment Operations (Clean Air) Regulation 2070</i>	Requirements in relation to emission from vehicles and general obligations that the occupiers of non-residential premises do not cause air pollution by failing to operate or maintain plant, carry out work or deal with materials in a proper and efficient manner.	State
<i>Work Health and Safety Act 2077</i>	Requirements in relation to ensure work safety that are enforceable by law	Commonwealth

All work shall be conducted, as appropriate, in accordance with (but not limited to) the following air quality and odour codes of practice:

- AS 2986.1-2003 Workplace air quality - Sampling and analysis of volatile organic compounds by solvent desorption;
- AS 2986.2-2003 Workplace air quality - Part 2: Diffusive sampling method; AS NZS ISO 19011-2003 Guidelines for quality and or air quality and odour management systems auditing;
- DEC (now EPA), NSW (2005): Approved Methods for the Modelling and Assessment of Air Pollutants in NSW;
- DEC (now EPA), NSW (2007): Approved methods for the Sampling and Analysis of Air Pollutants in NSW;
- National Environmental Protection Measure (NEPM) on Ambient Air Quality;
- Other NSW EPA endorsed relevant guidelines.

In addition to any regulatory compliance required by the above-mentioned Acts and Guidelines, the contractor will be responsible to carry out the site works with all due care to ensure that the following conditions are complied with:

- Practical minimization of all wind-borne dust leaving the confines of the site;
- No water containing any suspended matter or contaminants is to be allowed to leave the confines of the site in such a manner that it could pollute any nearby waterway;
- Material originating from onsite is not to be tracked outside the site boundary and any material present on road surfaces must be removed immediately;
- Odour levels at the site boundary are to comply with the requirements as per this AQOMP.

The AQOMP will be explained to all contractors and a copy will be maintained on site during construction works.

4.4 MONITORING MEASURES

4.4.1 AUDITING AND RECORD KEEPING

The Project Manager will conduct regular audits of the Principal Contractors implementation of the AQOMP. Audits will involve a review of all air quality and odour documents, record keeping and reports to ensure compliance with the requirements of the AQOMP. If non-compliance is detected, the Principal Contractor will initiate to the satisfaction of the Project Manager the appropriate reactive action.

Key air quality and odour and procedural issues to be covered by the audit will include, but may not be limited to:

- Air Quality and Odour management measures presented in Table above;
- Adherence to compliance reporting measures;
- Complaint and contingency management; and
- Legislative requirements

Records of auditing and compliance reporting measures will be maintained to demonstrate compliance with air quality and odour requirements.

Air quality and odour and construction record will include, but may not be limited to:

- Complaint records;
- Contingency, non-conformance and reactive action reporting;
- Communications with stakeholders; and
- AQOMP audit documentation.

Auditing will also be carried out in line with the SSD requirements for the project.

4.5 EMERGENCY PREPAREDNESS AND RESPONSE MECHANISMS

Specific and immediate response mechanisms to emergencies and air quality and odour contingencies will be determined by the Principal Contractor.

4.5.1 TABLE 4: EMERGENCY CONTACTS

ORGANISATION	CONTACT NUMBER
Police, Fire, Ambulance	000
Emergency call service – International standard	112
Text Emergency Call	106
Royal Prince Alfred Hospital	50 Missenden Rd, Camperdown NSW 2050 (02) 9515 6111 Mon-Sun = 24/7
Redfern Station Medical Centre	1/147-151 Redfern St, Sydney NSW 2016 (02) 8313 2999 Mon-Fri = 8:00am – 6:00pm Sat = 10am – 2pm
City of Sydney Council	Town Hall House Level 2, 456 Kent Street Sydney NSW 2000 02 9265 9333 Mon-Fri = 8:30am-5:00pm
State Emergency Service (SES)	24Hrs 132-500
NSW EPA Pollution Hotline	(24 hours) Phone: 131 555
Ausgrid (Gas Supply)	13 19 09
Sydney Water (faults, leaks and water quality enquiries)	13 20 90

4.6 SECURITY AND PUBLIC SAFETY

4.6.1 RESTRICTION TO ACCESS

Perimeter fencing and/ barricades that restrict access to the proposed work zone and stockpile area should be installed. Only authorised persons wearing the appropriated PPE will be able to enter the construction and stockpile/staging areas during works.

Whilst construction works remain open, the site is unattended, and works are not active, high visibility fencing will be placed around the boundary of the construction works to alert any people on site to the presence of the construction works.

4.6.2 PEDESTRIAN AND TRAFFIC CONTROL

Relevant signage will be in place during the construction works to warn and protect pedestrians and other traffic of the potential exposures in the vicinity of the work area.

Signage shall also be erected to inform the public whom to contact in case of any complaints.

4.7 COMPLIANCE REPORTING MEASURES

Table 1 above includes Performance Objectives to be applied to specific aspects of the works and Reactive Actions that may be adopted should non-conformances or air quality and odour contingencies occur.

The Principal Contractor is responsible for ensuring that all personnel under their jurisdiction have been provided with adequate training in the areas outlined in this document.

The Principal Contractor will maintain records of all personnel who have undergone training in relation to the AQOMP and general air quality and odour responsibilities. Records of trained personnel will be maintained in a log to be kept on site. A record of issues covered in daily toolbox meetings should be maintained.

The Principal Contractor will ensure that anyone who appears to lack an understanding in the above areas undergoes adequate retraining.

4.7.1 NON-COMPLIANCE

A non-conformance is defined as a failure to fulfil a requirement of this AQOMP or other associated air quality and odour document. All non-compliances must immediately be reported to the Contract Administrator, and the appropriate details of the non-compliance should be submitted (in writing via email) within 24 hours of the occurrence of the non-compliance.

The Project Manager or Subcontractors may identify and report a non-conformance.

4.7.2 AIR QUALITY AND ODOUR CONTINGENCY

An air quality and odour contingency is defined as an unplanned event that occurs that impacts, or has the potential to impact, on the air. In the event of an air quality and odour contingency, the Contract Administrator should be notified immediately. The details of the air quality and odour contingency will be supplied to the Project Manager on reporting of any contingency.

4.7.3 COMPLIANCE REPORTING MEASURES AND REACTIVE ACTIONS

When reporting a non-compliance or air quality and odour contingency, all immediate reactive actions which have been taken to rectify the situation will be documented. Further reactive action should be recommended if required at the time of reporting. Relevant agencies which require notification should also be identified.

The Principal Contractor will maintain a register of all non-compliances and air quality and odour contingencies, along with the reactive and proactive actions which have been implemented to mitigate and/or prevent further recurrences. The Principal Contractor must ensure and verify that reactive actions to control air quality and odour impacts and avoid future non-compliances have been undertaken by the appropriate personnel.

Table 5 below details the general procedures to be undertaken when non-compliances and air quality and odour contingencies occur.

4.7.3.1 TABLE 5: REACTIVE AND PROACTIVE ACTION PROCEDURES

ELEMENT	MANAGEMENT
Objective	To implement a system to identify, document, analyse and implement reactive and proactive actions for air quality and odour non-conformance issues

Management Actions	<p>When a non-conformance or air quality and odour contingency occurs, the Principal Contractor is to ensure reactive and preventive actions are implemented by:</p> <ul style="list-style-type: none"> • Assigning personnel to undertake investigation as per "Air quality and odour contingency Investigation Report" Form or 'Non- Compliance Report' Form and designate lead investigator. • Maintain documentation of Investigation Report Forms and their reactive/preventive actions on site; • Report air quality and odour non-conformances identified that cause or have the potential to cause a significant air quality and odour impact immediately to the Contract Administrator.
Responsibility	<p>All Staff and Subcontractors are:</p> <ul style="list-style-type: none"> • Responsible for informing their immediate manager of air quality and odour non-conformances. • Responsible for undertaking reactive/proactive actions and effectiveness determinations as assigned. Provide a summary of air quality and odour non-conformances with outstanding reactive actions to the Contract Administrator as requested. • Utilise reactive/proactive actions to revise and update AQOMP and/or AQOMP objectives, operational controls, and other aspects as required. • Review outstanding reactive action status.
Compliance Reporting Measures	<p>Maintenance of records of "Air quality and odour Contingency Investigation Report" Forms and 'Non-Compliance Report' Forms completed for the duration of the project.</p>



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