

Our Reference: S10847-ENV-L01-A2
08/07/19

Sydney Opera House Trust
Bennelong Point
Sydney NSW
2000

Attention: Peter Doyle

Re: Sydney Opera House Lower Concourse Improvements - Odour and Emissions Assessment

Introduction

Hibbs & Associates Pty Ltd (Hibbs) has been engaged by the Sydney Opera House Trust (SOHT, the Client) for the provision of environmental services associated with improvement works of the Lower Concourse of Sydney Opera House (SOH, the Project) located at Bennelong Point, Sydney NSW 2000 (the Site).

SOHT submitted an application to the NSW Department of Planning & Environment (DPE) to ascertain the requirements for the Project. Post review of the application, DPE issued Secretary's Environmental Assessment Requirements (SEARs) on December 21, 2018 (Ref: SSD 9794) which require to discuss potential odour and emissions impact and mitigation measures within the environmental impact statement (EIS), as stated below.

"The EIS shall: Discuss potential odour and emissions impacts and potential mitigation measures, including any details of any proposed solid fuel cooking".

Hibbs conducted a review of the existing ventilation system and previous modifications and prepared this odour assessment brief for inclusion in the EIS being prepared (by others) for the Project.

The improvement works involve:

- removal of existing shade structures, partial demolition of the existing glazing line at the Opera Bar, and fitout of new office, store and cool room
- installation of new shade structures
- realignment of the glazing line in front of the Opera Bar, including enclosure of the area between the Opera Bar and Meat & Cheese Room, and relocation of the egress from the Opera Bar;

Previous upgrades to the ventilation system in plantroom 31 and to a lesser extent plantroom 29 were completed in 2016. The proposal does not include any changes to the ventilation system.

This assessment refers to the following documents and plans supplied to Hibbs by SOHT:

- Mechanical Specification for Lower Concourse Plantroom 31 Replacement Works, Jones Nicholson Pty Ltd, March 2015, Ref: MSPEC-20141545-A (Jones Nicholson, 2015).
- Mechanical Design Notes, Legends & Schedules, Jones Nicholson Pty Ltd, March 2015, Ref: 58-BG-JN008-M01 A

- Mechanical Design Lower Concourse Existing and Demolition Layouts, Jones Nicholson Pty Ltd, March 2015, Ref: 58-BG-JN008-M02 A
- Mechanical Design Lower Concourse Proposed Plant 31 Layout and Sections, Jones Nicholson Pty Ltd, March 2015, Ref: 58-BG-JN008-M03 A

Project Description

The upgrades carried out on the ventilation system in 2015 - 16 involved decommissioning and removal of the existing kitchen, toilet and grease trap exhaust system including fans, plinths, ductwork, filtration system, controls, electrical supply, other associated items. These were replaced with a new system comprising of new re-routed ductwork, built up 2 pass electrostatic air filter (in the kitchen only), carbon filter system, fans, all electrical and controls works.

The design measures for controlling the odour involves the use of activated carbon filter and safety filter section of the filter system.

No solid fuels are used for cooking in the Lower Concourse.

Odour Impact Assessment

We understand from SOHT there is no history of:

- an odour assessment being undertaken for restaurants and bar within the Lower Concourse
- an odour complaints register being used

The Jones Nicholson, 2015 report details that odour control for the kitchen, toilet and grease trap exhaust ventilation systems is via activated carbon filters. The specifications of the activated carbon filters confirm that filters will provide an efficiency/performance of >95% which will adequately control odours. It is understood that the filters were installed according to the relevant standards and are replaced when required or every 6 months. Odour impacts are considered minimal with the implementation of these design measures.

There is no use of solid fuels in the cooking, thus no associated odour and emissions are envisaged.

Recommendations

It is recommended that procedures be put in place to document any odour complaints and appropriate actions be taken in the event of a complaint to determine the cause and necessary action. An odour complaints register should be maintained.

Given the apparent absence of any odour complaints in relation to the existing ventilation system and the inclusion of activated carbon filters to manage odour, it is not considered that further mitigations are required to manage odour and emissions at the Lower Concourse as part of the improvement works.

Regards,

Pip Tildesley
Environmental Consultant



Rizwan Javed
Snr Environmental Consultant

