Submission: Proposed Expanded Function Centre White Bay WB4&5

Author: Les Johnston

Scope of Application

The project is for the establishment of an entertainment - function centre to cater for up to 2500 persons at any one time using the existing WB4 and WB5 on shore buildings and car parking areas.

This project must be assessed entirely separately to that of the existing White Bay Ship Berthing Facilities. The function centre has no relationship to the activity of cruise ship berthing. There are other facilities in the Sydney area which can cater for function centre activities. Some of these are much better located in terms of proximity to residential areas. From information in the application, activities can potentially take place for up to seven days a week from 7am till after midnight. The scale of this application is far greater than that provided by the existing facility.

This application must be assessed on the same basis as that for any other function centre. It is essential that this proposal is assessed the same as any other entertainment function centre. There is no valid case to claim that this application, by a NSW Government authority, should be assessed using special dispensation because it is a “Government” activity.

Complaint history

The documents make the claim that the lack of previous complaints about events held at the site confirms that the neighbouring residents are satisfied with existing site non-cruise ship activities. In speaking with immediate neighbours, it is confirmed that residents do not bother to complain because past experience has shown that Ports NSW has done very little to accommodate its neighbours and has dismissed complaints without meaningful action. Further, cruise ship noise levels (up to 67dB(A) at nearest residences) are much higher than that caused by previous functions.

Scope creep

The original approval was for the site to be used as a “function” centre. The current application appears to have expanded the types of activities to include what appear to be “entertainment” events. For example, the inclusion of “amusement” rides on the site and the proposal to expand the use of amplified music to outside areas and generate higher amplified music levels inside the building, suggests that the application could provide for a much wider range of activities than that undertaken in the past.

The documents do not clarify whether a single event may take place over several days whether consecutive or not, or whether multiple events may take place on the same day (for example different event in the morning to that in the evening) or whether each day any activity takes place is regarded as an event.

Scope creep is also apparent in terms of the number of days of the year when non-cruise activities may take place on the site. This is because the claimed reduction in number of cruise ship visits opens the possibility of 50 functions per year being spread over up to 200 days per year for audible events where each event lasts for four days. Alternatively, with 100 cruise ship visits, there are up to 265 days per year when events may take place.

The proposal seeks up to 30 functions per year with over 1500 patrons at any one time. With functions spread over multiple days, this means the site could have 1499 patrons up to 200 days per

year when the audibility criterion applies. It also means over the duration of an event, many more thousands of people could attend over any day as the limit only applies at any one time. This means that there could be many more vehicle movements associated with a particular event over the duration of that event. The assessment of noise provided by the proponent does not include an assessment for this type of event where patrons are coming and going on the day of the event.

Incomplete or missing information

The application contains no details of any compliance reports providing information, such as, noise levels arising from past functions. For example, there is no information on number of vehicles used to convey patrons to and from events and the actual number of patrons, there is no information on noise measurements that were performed to assess whether previous events complied with the background octave band +5dB(A) noise criteria, and there is no information on the procedures that were used to determine whether an event was "audible" or not at any residential premises.

The expanded proposal suggests that there will be new noise sources that need to be assessed. For example, refrigeration equipment on vehicles (sound power level 103dB(A) WM Report) and portable generators for food storage, refreshments and the like would be needed on the site for some events in its expanded capacity. These have not been identified nor included in the noise assessment.

The "Audibility" criterion

The "audibility" criterion used by Ports NSW is that audible events will only take place up to four times per week. This criterion to classify whether a function has occurred is too vague. For example, if a single event takes place over five days, must the event be inaudible just for one of the five days? The documents contain no details of any previous compliance reports which have assessed whether an event passed or failed the audibility criterion and whether that assessment included noise from motor vehicles transporting patrons and equipment to and from the site.

Wilkinson Murray (WM) Cruise Ship Noise Assessment 2010

The WM report provides evidence of noise propagation loss that is useful to assess some of the missing information from the current application. The WM report proposed a sound power level[1] noise limit of 92dB(A) for stationary mechanical plant. This limit suggests that noise levels associated with the expanded proposal must at least meet this limit.

The WM report is also referred to because the on-site vehicle noise was assessed against the inflated noise limit which the report claimed was derived from the NSW Industrial Noise Policy (INP). I have discredited this methodology previously. The important distinction is that the assessment of noise from functions falls under a different assessment methodology to that of cruise ships and must satisfy the background octave band +5dB(A) criterion.

Amusement rides

The role of amusement rides in a Function Centre is unclear. The increase in patrons may provide an expanded role for amusement rides. Whether "amusement rides" falls within that permitted as a "Function Centre" relative to an "Entertainment Centre" has not been explored. The proponent has not provided any information on the noise levels generated by "amusement rides" and whether the conduct of such rides satisfies the current background octave band +5dB(A) noise limit. My concern

[1] Sound Power Level (PWL) is used in this submission. It is the power level of a noise source. In contrast, sound pressure level relates to the pressure of sound at a point.

is that amusement rides falls within the definition of entertainment and is not permitted under the statutory provisions. The concession of up to five such events per year appears questionable.

Motor vehicle noise assessment

Motor vehicle noise on WB4 and 5 arising from an event must be assessed as part of the application as the roadway is a private road. The current application contains no details of noise modelling results for drive past noise, vehicle ignition starts, door shutting and patron noise on the site. It is incumbent on the proponent to provide such information. Motor vehicle noise must be assessed for the expanded capacity and expected actual motor vehicle movement data provided. The claim that there were no complaints in the past does not justify that the expanded function usage will also be satisfactory.

The proponent has proposed to use a previously used unspecified criteria to assess on-site traffic noise. This is not acceptable. The proponent needs to specify what criteria it is using and make an assessment against that criteria.

Private road vehicle noise must be assessed using the criteria relevant to the principal activity not using the public road traffic noise assessment procedure. On this basis, the proponent should have included an estimate of motor vehicle pass-by noise using a traffic noise model such as CoRTN. For example, a vehicle/hour count of 300, distance 50m and height elevation 6m, gives an estimate L10 of 56.2dB(A). The nearest residences to the on-site roads are in Stephen Street, Waite Street and off Buchanan Street and well under 50 metres from the roadway. Given a background noise level of 40dB(A) as specified by Renzo Tonin, motor vehicle pass-by noise is in breach of the allowable noise limit. The private road on the site passes very close to multiple residences in these streets. The proponent could have offered to relocate vehicle movements on the site to be at much greater distances to reduce noise levels. This option was not considered.

The original documentation in 2010 claimed that 200 parking spaces would be needed for 500 persons. The assessment allowed for 400 vehicles per hour for 500 patrons. This expanded application is for 2500 patrons at any one time yet it is assuming the same number of motor vehicle events as for just 500 patrons. This inconsistency with the original application is unacceptable. Where is the new vehicle parking area for the additional 2000 persons? To suggest that 2000 extra persons can be accommodated at one time without demanding additional car parking is not credible. No details are provided of where parking will be located for up to 2000 additional people? What realistic measures will be used to ensure that all these additional people will come and depart by bus or ferry? Noise levels from buses are much greater than that from cars.

The proposal seeks to use a “traffic management plan” (TMP) to reduce motor vehicle and patron noise. The TMP by itself will not reduce noise unless its content has specific measures that will deliver realistic noise reduction. Those specific measures must be nominated and evaluated for their effectiveness as part of this application not left to consider what might work in the future. Evidence from the White Bay Cruise Ship facility has demonstrated that noise reduction plans have not delivered noise reduction as claimed. The proponent has not provided any information on the noise levels that will be achieved by applying the TMP. There are no practical means for reducing much of the motor vehicle noise sources such as those nominated below. The only effective means is to eliminate motor vehicles from the site entirely or to have enclosed parking and access roadways.

The proponent has not detailed the assumptions it has used for motor vehicle noise nor how motor vehicle noise will be limited to the background plus 5dB(A) octave band noise limit condition at residences. The proponent has offered to provide staff to monitor vehicle movements. This control

measure will not reduce vehicle start noise and provide very little noise reduction from vehicle movements. More effective noise control measures were not considered.

I have obtained estimates sound power levels of various motor vehicle associated activities in car parks. These are:

- Door slam – Sound Power Level (PWL) 102dB(A)
- Ignition start – PWL 101dB(A)
- Vehicle pass-by – PWL 97dB(A)

I have taken noise measurements of motor vehicles on the site on cruise ship days at one of the nearest residences. These measured noise levels exceeded the 40dB(A) +5dB(A) condition. When all the components of motor vehicle noise are included, the proximity of the nearest residences means the expanded facility will not satisfy the existing noise limit.

Amplified Indoor Music Noise

The assessment provided by the proponent of its intention to increase the volume and location of amplified music is unacceptable because it will breach the existing noise limit. The existing building was not designed to contain amplified music as it is of light weight construction. To contain bass amplification, the building needs to be constructed of much heavier materials typically concrete block or masonry. My experience has confirmed that this lightweight construction with residences nearby will not comply with the 40dB(A) noise limit in lower octave bands.

In the past, I have performed many acoustic tests of buildings where live and disco music was performed. I used a special purpose amplifier with equal octave weighted pink noise to determine noise leakage pathways and achieved sound reduction. The test described by the proponent is inadequate. At 32Hz (approx. low B pitch), A weighting is approximately -40dB whereas at 64Hz, A weighting is -26dB. The 92dB(A) sound pressure level has a 32Hz sound pressure of 132dB and 64Hz of 118dB. The lightweight structure of the building does not contain these frequencies and the residents will be exposed to noise levels that exceed the octave band +5dB(A) criterion especially in these two octave bands. In my experience, the conclusion of “reasonable limitation of bass levels” is impractical and mistaken in the claim that the building envelope will contain 92dB(A) internal noise levels for amplified music.

The proposal to increase the internal sound pressure noise level to 92dB(A) also questions the claim that the facility is for a “function” centre. At 92dB(A), one to one speech communication is very challenging as the music is predominant and would appear to be “entertainment.” At 92dB(A), some patrons may expect to incur some hearing loss and this noise level is also an exceedance of the occupational health standards.

Operators of live entertainment and disco venues typically find difficulties in reducing sound pressure levels and keeping them under 92dB(A). While sound level switches can be used, patron satisfaction is compromised and means of avoiding the sound level switch are sought after. The practical response is to design the venue appropriately so that noise levels of 100-105+dB(A) are contained particularly in the lower octave bands.

Amplified Outdoor Music Noise

The proposal to increase the outdoor noise levels and permit “background” music being played was not adequately assessed. Noise level measurements were not made at the nearest residences. The two speakers would have a PWL of 106dB(A). This sound power level exceeds that specified in the WM Report for stationary equipment at the cruise ship facility. Sound propagation from speakers

has a directivity component. No assessment of sound pressure levels and directivity against octave band background noise levels was provided.

The justification for the “background” music was to provide “atmosphere.” Residents can be expected to be more annoyed by “background” music because of its inherent tonal and impulsive characteristics. These characteristics under the INP cause this type of sound to have additional weighting. The proponent has not satisfactorily justified its claim for higher noise levels for outdoor music and provided noise measurement results which justify that the higher noise level will satisfy the existing background octave band +5dB(A) noise limit.

Patron Noise

The proponent has not identified and assessed patron noise arising from the expanded facility. External patron noise and internal patron noise needs to be assessed. 2500 patrons in an external (or internal) area engaging in conversation can be expected to generate a PWL of approximately 108dB(A). This noise level exceeds the 92dB(A) PWL specified for mechanical equipment in the Wilkinson Murray Report for the cruise ship facility. Patron noise in vehicle parking areas also needs to be assessed. In particular, the proposal to extend hours to 12:30am will deliver an even greater level of impact on residents. At this time of day, the noise criterion is background octave band + 0dB(A). This criterion will not be met by 2500 patrons external to buildings.

Public Accountability and Access to Information

The existing Ports operations for events has shown that information about events is not made available to the public. Event compliance reports are not provided on the Ports web site. It is requested that noise monitoring be required for each event and all monitoring reports be placed on the Ports web site within 2 weeks of any event taking place. The proposal to not require future noise compliance monitoring reports is rejected. The proponent should be required to establish at least three noise monitoring sites along its residential boundary and provide real time noise level data to the public. A monthly analysis of the noise monitoring results including dates, times, duration of events, number of patrons and vehicle parking data would assist residents to gain assurance that the venue is being operated and effectively monitored. The current situation where event data is not provided is not acceptable.

The proponent is seeking to reduce time periods for notification of future events. This is not supported as it limits the opportunity for residents to make alternative arrangements to lessen the impact of noise pollution on their rights to enjoyment of their residential space.

Compliance and Condition Enforceability

Conditions that are placed on this proposal, should it be approved, must be enforceable and relate directly to its environmental impact. My reading of the existing and proposed “conditions” is that they are of very limited enforceability. For example: “Noisy activities can be located strategically to minimise impacts.” This condition is not able to the quantified and assessed for compliance.

The noise limit condition of background octave band + 5dB(A) L10 (and +0dB(A) at later times is very difficult to enforce given the background noise from traffic on the Anzac Bridge and associated roadways. To be enforceable, this limit must be replaced by a limit much closer to the source.

Consent conditions, such as, developing a TMP or referring compliance to conditions that might be included in the Operational Environmental Management Plan should be avoided as these do not specify a direct environmental protection outcome. Such conditions simply specify an activity which may or may not deliver environment protection sufficient to protect the amenity of the public.

The proponent is seeking to remove conditions requiring it to monitor events for compliance. This is not acceptable when the predictions are that this proposal will not satisfy the existing noise limits for such events.

Conclusion

The application for up to 2500 patrons at any one time must be refused on the basis that the noise levels it will generate will grossly impact the amenity of nearby residents. The proposal to extend the permitted hours of operation beyond midnight, permit external amplified music and at higher noise levels and to increase the internal amplified music levels must be rejected. Motor vehicle and external patron noise levels from up to 2500 patrons at any one time, will cause a very large increase in noise levels at residences due to the number of motor vehicles, nature and character of such noise. The proponent has not demonstrated how the expanded facility will realistically comply with the existing reasonable noise limits in a densely populated residential area. The proponent has not provided a comprehensive assessment of the cumulative impact of noise emissions from the expanded function/entertainment facility.