

Noise calibration activity –July 4th 2014.

Geoff Taylor, noise consultant, spent the afternoon going through the systems and checking noise emissions.

Noise was generated by both a 'pink noise' generator and a pop record with a heavy beat both played from the sound desk through the two sets of speakers –above the stage and in front of the stage.

Findings:

1. The noise limiter yellow light came on at ~ 97dBA and the trip triggered at about 100dBa as per setting.
2. The overhead speakers cut out at about 98dba when on their own –even before the noise limiter had triggered. This was a puzzle because although the noise tripped the power points did not! Eventually it was concluded that these overhead speakers had their own trip switch independent of the noise limiter.
3. With only the forward speakers on, the yellow light came on at the expected time but the power did not appear to trip when the noise limiter had reached the trip position when the system was on 'auto ' ; when the system was switched to manual the power went off and stayed off at the trip level.
4. It was eventually concluded that the automatic reset timer was set too short (~1sec) and when this was adjusted to ~7secs the system operated as it should. The power did trip but came on again after 7secs- the intended form of operation.
5. External noise measurements were taken around the building at the trip level of the limiter (100 dba) . The figures recorded were, as previously in the order of 50 dBA ie at the general background noise from traffic etc . However the beat from the hall was clearly audible.
6. The audibility was probably highest from the bar emergency exit but the conclusion was again that the main transmission was from the roof of the main hall.

Conclusions

1. With the delay timer increased, the noise limiter is working as intended and at the correct levels.
2. As an initial attempt to reduce the nuisance, the set level was reduced to 97.5 dBA- the warning light will come on at about 90dBa

3. The noise limiter on automatic should be in place permanently and with adjacent power points locked off. (John to order locks)
4. The PA access point on the left of the proscenium arch should not be let for use by hirers since it by-passes the noise limiter.
5. The noise nuisance action plan (below) was the best way forward and should be followed

Noise nuisance action plan

1. Check and calibrate noise limiter and decide cut-off level
Early July 2014 complete—set down to 97.5dBa
2. Install power point locks on all reasonably accessible power points.
Early July complete.
3. Re-establish noise limiter discipline
End July in-hand
4. Continue and record communication with all live band events immediately prior to gigs. On going
5. Progress new audio system for VH users direct –powered via noise limit circuit. Equipment obtained. To be installed in September.
6. Install double glazing window in side stage room.
Week 1 July Complete
7. Secondary glaze all North facing windows. September
8. Progress porch and secondary emergency door to bar area.
Designed –costings being obtained
9. Progress requirements for additional roof sound insulation
Designs for stage area as first area complete. Costings being obtained

Review needs. October

10. Install additional roof insulation to stage area -architectural specification if needed.

Review needs November

11. Install additional roof insulation over remaining roof if required.

Estimated cost up to October Review £3000 (including consultant fees)
Cost of item 10 and 11 as yet indeterminate but very significant.