

Application No: 2024/0509/P **Consultees Name:** Angela Cooke **Received:** 02/05/2024 18:23:51 **Comment:** COMMNT **Response:** Re: Replacements of Air Cooled Chillers

I note that lower-level noise Air Source Heat Pumps are being proposed which are of a lower noise level than the highest existing one and are not anticipated to increase noise levels in the surrounding area. How will this impact the cumulative sound level and vibrations and to what degree?

With the increase of installations of generators and coolers across the local vicinity whether it is a high-frequency noise or low-frequency hum or both, they can all greatly impact health with each person's toleration levels different. "Hum sufferers" describe a low-frequency buzz accompanied by a rumbling vibration. It's worse at night, making it almost impossible to sleep and includes symptoms such as debilitating headaches, nausea, nosebleeds and diarrhoea.

Residents of Gresse Street have problems with the humming noise, especially at night when the usual street noise does not mask the sound during the day. One resident sold her property in the block some years ago because the level of continuous humming noise impacted her health.

I note the proposed ASHP units are lower than the highest noise level existing units. Please note that low-level noise and continuous hum also impact the residents' health (mental and physical) including high pitch noise so such persistent and invasive low-frequency humming needs to be addressed properly.

Noise pollution: more attention is needed
Lancet DOI: <https://doi.org/10.1016/j.lanepe.2022.100577>

Low-Frequency Noise and Its Main Effects on Human Health—A Review of the Literature between 2016 and 2019
<https://www.mdpi.com/2076-3417/10/15/5205>

Khosravipour M, Khosravi F, Ashtarian H, Rezaei M, Moradi Z, Mohammadi Sarableh H. The effects of exposure to different noise frequency patterns on blood pressure components and hypertension. *Int Arch Occup Environ Health*. 2020 Nov;93(8):975-982. doi: 10.1007/s00420-020-01545-2. Epub 2020 May 6. PMID: 32377790.

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