

Osmond, Gary

From: Wedgbury, Stuart
Sent: 30 July 2024 11:26
To: Osmond, Gary
Subject: F/24/97844- River Itchen Water Treatment Works, Allington Lane,, Southampton,, SO30 3HQ- PR202407-105487

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Gary

F/24/97844- River Itchen Water Treatment Works, Allington Lane,, Southampton,, SO30 3HQ- A new permanent building to house a centrifuge; alongside a balancing tank, sludge cake skip and adjacent hard standing for temporary pallet storage at the site known as River Itchen Water Treatment Works (WTW), Allington Lane, Southampton, SO30 3HQ- PR202407-105487

Thank you for consulting Environmental Health. I comment upon environmental noise and odour only.

Plant Noise

I note the Planning Statement sets out in para 5.15 that the proposed centrifuge is the DP37 model and quotes a sound pressure level of 84dB (plus or minus 2dB). The submitted 'Hillier centrifuge details show two values in the row DP/DT37-422. I assume therefore that the first four columns of sound pressure levels relate to the DP37 model proposed and show 'standard design' sound pressure levels matching the Planning Statement. The remarks set out the assumptions / caveats for this data.

Para 5.15 also sets out that the closest residential boundary to the building is at 130 meters from the proposed centrifuge location. I calculate (assuming spherical dispersion over acoustically soft ground) that one could expect average sound pressure levels from the centrifuge alone of around 42dBA at this point. This taking no account of the sound reduction through the building enclosure or intervening buildings.

Paras 4.13 and 4.14 set out existing measured noise levels (parameters unstated) at various points relevant to the residential receptors with the existing temporary centrifuge in operation. It is unknown to what degree the temporary centrifuge contributes to these levels. Background sound levels (in the absence of the temporary centrifuge) will however, be lower than those stated. Background noise levels may also fluctuate somewhat (although the motorway suggests that the diurnal pattern may not be particularly dramatic). On this basis I cannot be sure that the centrifuge operation would be inaudible and may be impactful, especially if it contains offensive characteristics such as tonal elements. Such elements are not unlikely given the nature of the plant.

As such, the acoustic design of the plant is a relevant consideration. I expect that the building enclosure if complete will probably provide sufficient protection, but this needs to be demonstrated. I would recommend a condition as follows:

CONDITION: Prior to the installation of the proposed DP37 centrifuge, an acoustic assessment shall be submitted to the Local Planning Authority to demonstrate that the sound rating level $L_{Ar,Ti}$ of the plant when operating does not exceed the representative background sound level (L_{A90}) at any residential curtilage established for the daytime (07:00 hours to 18:00 hours); evening (18:00 hours to 23:00 hours) and nighttime (23:00 hours to 07:00 hours) periods of interest. The assessment shall include full details of any mitigation measures necessary to achieve this standard for approval by the Local Planning Authority. Approved mitigation measures shall be implemented before the first operation of the plant and thereafter maintained.

With regard to the construction phase, I would also recommend that construction hours are limited by condition to those considered acceptable by the LPA.

Odour

I don't anticipate odour being a significant concern from this process.

Regards

Stuart Wedgbury

Environmental Health Specialist

Planning & Environment - Pollution

Ext.: 8353

Mobile: 07721572764



Banner: EastleighActive