Appendix A

Our Ref: B4xxx

Mr S Jones
Bourn Parish Council

15 January 2016

Dear Steve

Re: Planning application S/0499/15/FL – Proposed Container Storage Facility at Bourn Airfield

Thank you contacting me regarding the planning application of which I was previously unaware, despite the fact that we are situated immediately adjacent to the application site and I believe should therefore have been notified of this by the local planning authority.

I have reviewed the acoustic impact assessment by Cundall reference 1011980-RPT-AS-001 Noise Impact Assessment (Rev A) dated 7/10/2015 and the subsequent addendum reference 1011980-RPT-AS-002 Noise Impact Assessment Addendum (also Rev A) dated 6/11/2015. I have also reviewed the transport statement reference 406.05090.00003 (Final Version) dated June 2015 and 'A Day in the Life of Proposed Storage Activity at Bourn Airfield' by Wincanton.

I have several queries or comments relating to the potential acoustic impact and the associated information that has been submitted in support of this proposal, which I will cover in no specific order.

The activity patterns set out in Wincanton's document differ significantly from those assumed in the acoustic assessments. I assume that Wincanton's data relates to this specific application whereas the acoustic assessments were based on more generic information. I have therefore assumed that, should the application proceed, it would incorporate the restrictions set out in Wincanton's document and have reviewed the information on this basis. If this is not the case and it is proposed that the use be less restricted than Wincanton has proposed, the acoustic implications of this would first need to be more thoroughly considered and assessed, taking account of the various queries and uncertainties in the existing acoustic assessments that I have identified below.

The acoustic impact assessment refers to BS4142: 2014 as being the appropriate standard for this assessment. As discussed, I was on the drafting panel of this edition and agree it to be most suitable.

As would be expected I am familiar with the acoustic environment in the vicinity of our premises during the day and, having hosted numerous Factory Acceptance Tests at our premises for clients' equipment, also during the night. Under 'normal' conditions the most significant sources of sound during the night are vehicles passing along Broadway and along the A428 to the north of Broadway, in addition to other sources such as occasional aircraft, distant plant, etc. During the day the sound level from road traffic is higher, and there is a greater range of additional sources of sound that also contribute to the acoustic environment, such as activity at our and other premises.

Given the significant distance between our premises and the A428, individual vehicles when passing along Broadway are more significant than the greater number on the A428, although sound from these two sources is also different. Vehicles on the A428 produce a relatively steady underlying sound level due to

the relatively high number of vehicles and the relatively consistent separation distance between vehicles at different positions along the A428 and our premises. However, the sound level from vehicles on Broadway rises relatively quickly as the vehicle approaches our premises and then falls as the vehicle recedes into the distance. In the area around Broadway to the south of the A428, the relative significance of these two sources of noise varies with distance from the two roads in addition to other factors such as time of day and meteorological conditions.

The background sound level ($L_{A90,T}$) is the sound level exceeded for 90% of a time period T, so for a 15 minute (900 seconds) period, it effectively becomes the quietest 90 second sound level. This means that the Background Sound Level tends to omit any contribution from sporadic sources such as vehicles passing along Broadway because they are only of significance for much less than 90% of the time, whereas the Background Sound Level does include the relatively steady sound level due to vehicles on the more distant A428. This means that the Background Sound Level tends to fall with increasing distance from the A428.

Based on the sound level measurements obtained, the Noise Impact Assessment used Background Sound Levels of 32dBA at MP1 to the north of the application site, relatively close to the A428, and 44dBA at MP2 towards the south of the application site, relatively far from the A428 and close to our property. From my own experience and consistent with measurements I have taken during numerous Factory Acceptance Tests it is clear that this is not representative and that the (representative) Background Sound Level at MP2 should be similar to or lower than at MP1. The Noise Impact Assessment observes that the sound level at MP2 remained relatively steady over the 24 hour period, due to noise from a grain drier, but failed to recognise that this was not representative of normal conditions.

Section 5.1 of the Noise Impact Assessment provides some (limited) data regarding anticipated noise levels from the proposed development. It provides octave band spectra, which I assume are time averaged ($L_{Eq,T}$) levels for two activities for what I also assume are representative durations. However, the Noise Impact Assessment provides negligible information regarding the character of sound from the proposed development, which is essential when considering the context. One significant omission is detail regarding the time history and particularly impulsivity of the sound. Some limited information is provided in Section 5.4.2 but this only explains why a correction of +6dB has been applied, without consideration of other factors such as how significant or otherwise sound from the site will be in comparison to the residual acoustic environment. From experience I would expect some sound events to be relatively impulsive (this is also indicated in the Noise Impact Assessment). In this case it is the maximum sound levels that must also be considered, particularly for residents sleeping indoors at night, potentially with open bedroom windows, because this has the potential to disturb sleep. However, the Noise Impact Assessment does not provide any information regarding this aspect.

Sections 5.2, 5.3 & 5.4 provide a brief summary of how the specific sound and rating levels (both averages) are calculated at the two receptor locations, but provides no significant detail regarding these calculations. BS4142:2014 requires that the Initial Estimate of the Impact be reviewed depending upon the context of the situation. In this case the most significant source of site noise at Little Common Bungalow is be due to the movement of vehicles and the most significant component of residual noise will be road traffic, particularly on the A428. However, the Noise Impact Assessment fails to provide consideration of this context to inform understanding of the difference between Rating and Background levels prior to simply considering mitigation.

Section 7 addresses Uncertainty, claiming that variability in the sound source complexity 'has been robustly controlled'. However, the very limited sound source data is inadequate to properly understand the source characteristics or variability so this is not the case.

The Noise Impact Assessment Addendum continues to use the very limited background data obtained for the original assessment, inappropriately extrapolating this to a range of different locations. It simply compares the calculated Rating and Background levels, again failing to properly consider Context or Uncertainty. The calculation details are similarly vague although the sound contour plots provide a false sense of confidence in the data. Similarly the BS8233 assessments only provide a calculated average sound level inside the dwelling which is compared with guideline values, but without any consideration of the character of the sound.

The Wincanton document provides some helpful clarity but, as would be expected, does not provide any acoustic detail.

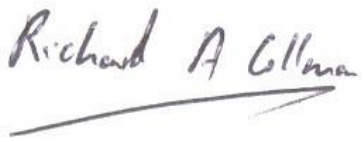
To summarise the above, I am concerned that the acoustic information provided to support the application is very simplistic. It fails to:

- properly assess the situation objectively or subjectively
- provide sufficient information to enable the analyses to be understood
- provide sufficient information to enable the likely acoustic impact to be understood

In view of these significant shortcomings I cannot form any opinion whether the proposal may or may not adversely affect the amenity of the occupants of neighbouring premises. This includes not only dwellings during the day and night, but potentially our premises. Whilst we are a potential source of noise, we also carry out occasional night time acoustic testing which requires low residual noise levels. It is unclear from the information submitted so far whether the proposed development may adversely affect our ability to continue to undertake this type of work.

Yours sincerely

for Acoustical Control Engineers



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