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28 August 2017

David Cookson
Dispersa Labs Inc.
1655 Abram Court
San Leandro, CA 94577
Email: david@dispersalabs.com

Subject: **Dispersa Labs Conditional Use Permit - Noise Assessment**
CSA Project: 17-0560

Dear David:

We have reviewed the Conditional Use Permit for the new Dispersa Labs facility at 1655 Abrams Court, San Leandro and have the following comments and recommendations.

CRITERIA

San Leandro Noise Ordinance

Chapter 4-1 of the San Leandro Municipal Code states in Section 4-1-1110 General Prohibition as follows:

It is unlawful for any Person, as defined in Section 1-4-100(h) of this Code, to make, continue, or cause to be made or continued any disturbing, excessive or offensive noise which causes discomfort or annoyance to reasonable persons of normal sensitivity. The factors which should be considered in determining whether a violation of this section exist includes the following:

1. *The sound level of the objectionable noise.*
2. *The sound level of the ambient noise.*
3. *The proximity of the noise to residential property.*
4. *The zoning of the area.*
5. *The population density of the area.*
6. *The time of day or night.*
7. *The duration of the noise.*
8. *Whether the noise is recurrent, intermittent, or constant.*
9. *Whether the noise is produced by an industrial, commercial or noncommercial activity.*
10. *Whether the nature of the noise is usual or unusual.*

San Leandro Conditional Use Permit Requirements

The CUP states in Section E. Findings for Approval that:

2. Appropriate measures have been taken to address nuisances related to odor, noise, exhaust, and waste.

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PROPOSED EQUIPMENT

It is proposed to install five (5) 5 Ton packaged air-handling units on the roof of 1655 Abram Court. There are no other significant items of equipment associated with the project. The specific units are yet to be selected, however, for the purpose of this assessment, we have used data for Trane T/YSC060E1 DX 5 ton packaged units, which would likely generate similar noise levels to the units selected.

The manufacturer's sound power levels are as follows:

Model Number	Sound Power Level (dB) at Octave Band Center Frequency (Hz)							
	63	125	250	500	1k	2k	4k	8k
T/WSC060E1	63	125	250	500	1k	2k	4k	8k
	85	82	81	81	77	72	67	61

ASSESSMENT

The nearest residential properties are located on Sunberg Avenue. The rear property lines of these residences are approximately 270 feet to the north-east of the roof edge of 1655 Abrams Court.

Based on the manufacturer's sound power levels in the table above, noise levels at the residential property line will be approximately 40dB(A) with all 5 units operating. This is likely to be significantly below the existing ambient noise at all times of the day and night. Abrams Court and Sunberg Avenue are on opposite sides of Interstate 880, which is a significant source of environmental noise.

There will be some interior equipment, such as a Quincy Compressor and other vacuums and exhaust fans. However, interior equipment will be below 85dBA (so hearing protection is not required to comply with OSHA). At this level, interior equipment noise breakout through the building façade will be considerably below the predicted 40dBA for rooftop equipment at the neighboring property line.

Considering all of the factors in the San Leandro Noise Ordinance, it is our professional opinion that the proposed new packaged rooftop units (and interior equipment) serving Dispersa Labs new facility at 1655 Abrams Court will likely have no negative impact on neighboring residential properties and no additional noise control measures would likely be required.

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This concludes our Conditional Use Permit Noise Assessment for Dispersa Labs at 1655 Abrams Court. Should you have any questions, please give us a call.

Sincerely,

CHARLES M. SALTER ASSOCIATES, INC.



Andrew J. McKee
Principal Consultant

AJM/ajm

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