

ZONING REGULATIONS
297 Attachment 18

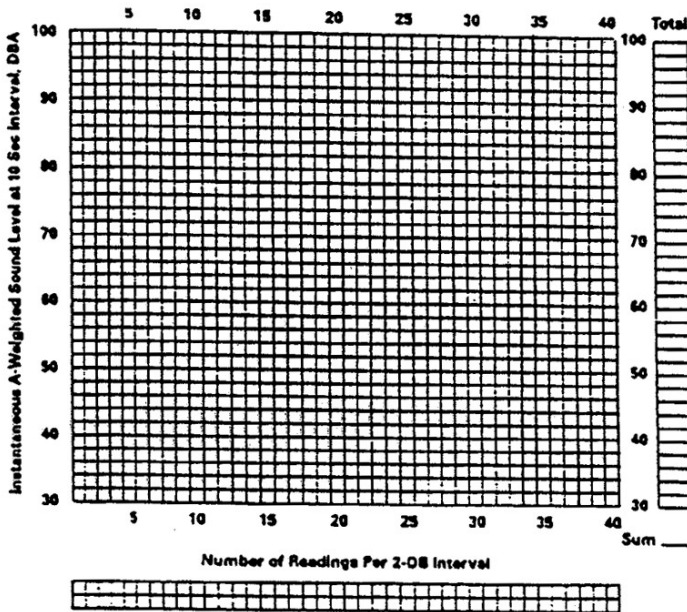
Appendix H
Guide for Noise Levels

Community Noise Measurement Data Sheet

Site No. _____ Packet No. _____ Cluster _____ Area _____

Location _____
Operators _____
Date _____ Day: M Tu W Th F Sat Sun
Time _____ am/pm to _____ am/pm
Wind Speed _____ km/h (_____ mph)
Air Temperature _____ °C (_____ °F)

Master Check ()
Battery: OK _____ Replaced _____
Settings: A _____ Slow _____
Calibrations: Set to _____ End _____



Miscellaneous (after data coll.)
Background Noise Sources: _____
Unusual Situations or Interferences: _____
Comments: _____

Description	Evaluation
_____ V. Quiet	_____ V. Accept.
_____ Quiet	_____ Acceptable
_____ M. Quiet	_____ M. Acceptable
_____ Noisy	_____ Unacceptable
_____ V. Noisy	_____ V. Unaccept.

Code for identifiable simple noise sources

Transportation	Machinery
E -- Emer. Veh.	C -- Construction
G -- Gen. Avia.	Y -- Yard Maint.
J -- Jet	F -- Factory
H -- Helicopter	Q -- Household
R -- Railroad	Other
T -- Truck	D -- Door
A -- Auto	P -- People Noise
B -- Bus	X -- Unidentifiable
M -- Motorcycle	
S -- Service Veh.	
V -- Off-Rd. Veh.	

Further Comments: _____

CHARLES COUNTY CODE

Computational Work Sheet
to Hand-Calculate L_{eq}
from Sound Level Meter
Measurements Recorded
on Data Log

A	B	C	D	
Noise Level Band, dB	Count	Relative Noise Energy	Relative Total Noise Energy	
100	x	=		
98	x	79,400	=	
96	x	50,100	=	
94	x	31,600	=	
92	x	20,000	=	
90	x	12,600	=	
88	x	7,910	=	
86	x	5,010	=	
84	x	3,160	=	
82	x	2,000	=	
80	x	1,260	=	
78	x	794	=	
76	x	501	=	
74	x	316	=	
72	x	200	=	
70	x	126	=	
68	x	79.4	=	
66	x	50.1	=	
64	x	31.6	=	
62	x	20.0	=	
60	x	12.6	=	
58	x	7.94	=	
56	x	5.01	=	
54	x	3.16	=	
52	x	2.00	=	
50	x	1.26	=	
48	x	.79	=	
46	x	.501	=	
44	x	.316	=	
42	x	.200	=	
40	x	.126	=	
38	x	.0294	=	
36	x	.0501	=	
34	x	.0316	=	
32	x	.0200	=	
30	x	.0126	=	
SUM B = _____		SUM D = _____		
SUM D/SUM B = _____		L_{eq} = _____		

Data Requirements:

- Each noise reading must be taken at a standard time interval between measurements.
- Each noise level recorded is the instantaneous level.

Step - Procedure

- Enter number of counts per noise level in Column B.
- Multiply the counts in Column B by the number in Column C and enter the result in Column D.
- Add all values in Column B to determine Sum B, add all values in Column D to determine Sum D, and divide Sum D by Sum B.
- Locate the value in Column C that is approximately equal Sum D/Sum B. The corresponding value in Column A is equal to L_{eq} . Interpolate to the nearest 0.5 dB.

Example

Given the following count data, find L_{eq}

Noise Level	Number of Occurrences
81	—
82	2
80	—
78	5
76	11
74	4
72	—

Using Steps 1—4 gives:

A	B	C	D
81	—	—	—
82	2	x	2,000 = 4,000
80	0	x	1,260 = 0
78	5	x	794 = 3,970
76	11	x	501 = 5,511
74	4	x	316 = 1,264
72	0	x	200 = 0
Sum B = 22; Sum D = 14,745			
Sum D/Sum B = 670			
L_{eq} = 70 dB			

• by linear interpolation in Column C and Column A