



***Progress on a Model
Community Noise Ordinance
Standard***

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American National Standards Institute *(ANSI)*

- **Accredited Standards Committee
S-12, Noise**
 - P. Schomer - Chair**
 - R. Hellweg - vice-Chair**
- **Working Group (WG) 41**
- **B. Brooks, L. Finegold – co-Chairs**
- **Given task to develop a *model
community noise ordinance***

Model Community Noise Ordinance

Purpose:

Provide local authorities a basis for developing:

noise ordinance

zoning performance standard

Gives local communities a technical basis for being able to manage local sound environment

Model Community Noise Ordinance

- **Should be suitable for all types of communities**
 - **Urban**
 - **Suburban**
 - **Rural**
- **Can be tailored for local circumstances**

Model Community Noise Ordinance

Local noise ordinances generally follow policy of:

Source noise emission control

Why?

- **Common law system provides means to control individual or corporate behavior**
- **Individual property rights**

Model Community Noise Ordinance

Four steps to developing an effective local noise ordinance

- Identify local official as focal point**
- Determine local needs & issues (e.g., number & type of complaints – community input)**
- Establish procedures for selecting noise control measures (i.e., a plan of action)**
- Adopt, implement & enforce ordinance**

Enforcement will be crucial to success

Model Community Noise Ordinance

- **Should address**
 - **Acoustical metrics**
 - **Assessment criteria**
 - **Enforcement methodology**

Model Community Noise Ordinance

Variety of available metrics:

**Single value (ANSI S1.1 and S12.9,
Parts 1-6)**

L_{AS}

L_{Adn}

L_{AE}

L_{apk}

L_{An} (n= 10, 50, 90)

**frequency weighting, time weighting,
averaging period**

Model Community Noise Ordinance

Variety of available metrics:

Spectral properties

Octave band levels

1/3 Octave band levels

Prominent tones

SIL

Model Community Noise Ordinance

Available *assessment criteria*:

1 Absolute level limits

2 Relative level limits

**Emitter level above
background level**

(subject to definition)

Model Community Noise Ordinance

First draft model ordinance:

Property Line Noise Limits

Slow time weighting

Short time average (1 sec) Leq

Metrics:

1 A-weighted SPL

2 dB(A) & C minus A levels

3 Octave Band (OB) levels

Model Community Noise Ordinance

Assessment Criteria:

Absolute limits:

Daytime level limits

Nighttime level limits

Impulse level limits

Limit adjustment for tones

Model Community Noise Ordinance

Assessment Criteria:

Relative limits

‘high background’ level limits

Model Community Noise Ordinance

Assessment Criteria:

Limits at property line based on Land Use of receptor and emitter

- 1 Residential**
- 2 Commercial**
- 3 Industrial**

Model Community Noise Ordinance

Noise Limits: Residential receptor

Industrial emitter

Daytime limit 61 dBA

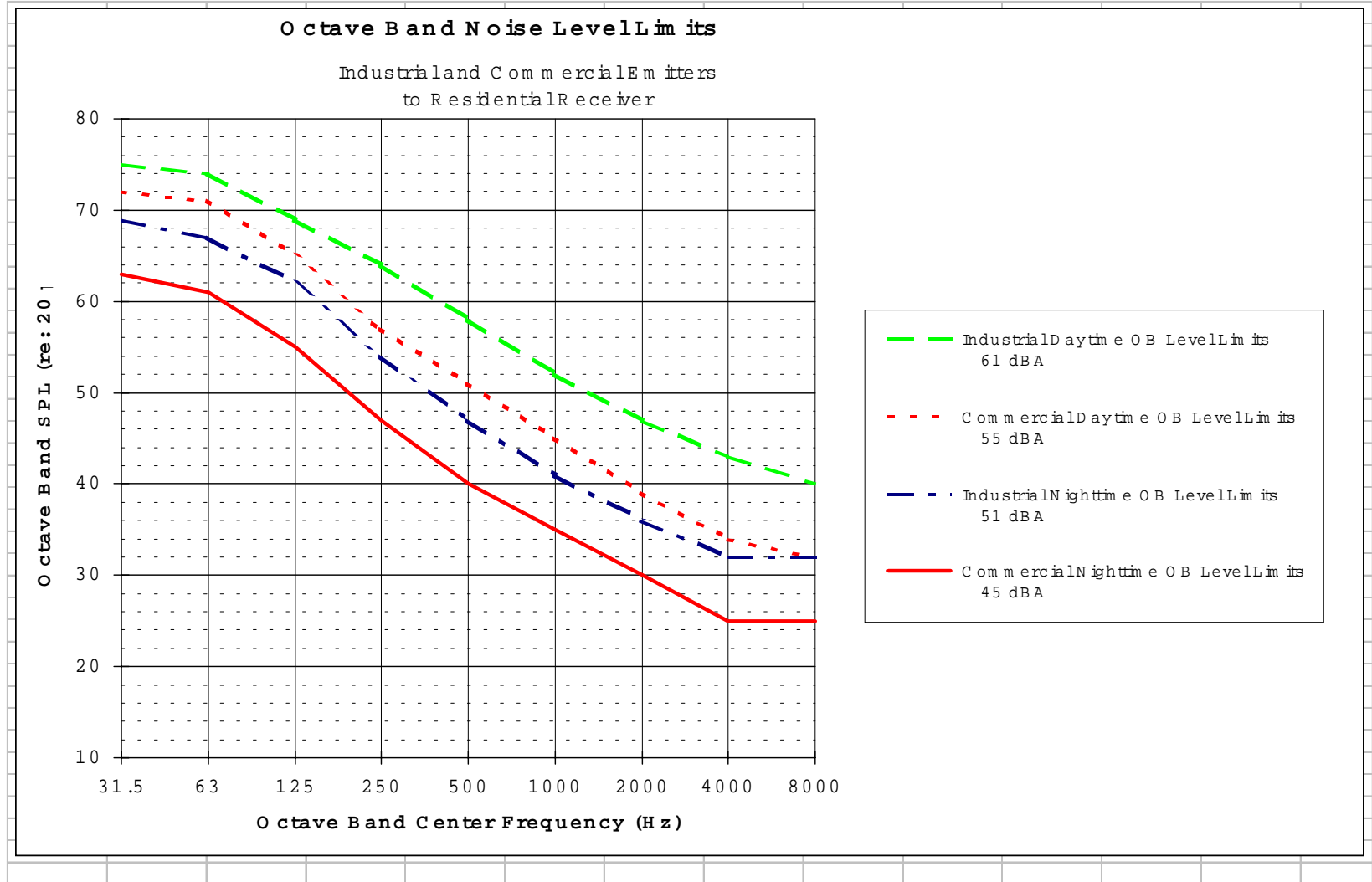
Nighttime limit 51 dBA

Commercial emitter

Daytime limit 55 dBA

Nighttime limit 45 dBA

Model Community Noise Ordinance



Model Community Noise Ordinance

Limit on: C minus A levels

19 dB

Model Community Noise Ordinance

C-wt Limits: Residential receptor

Industrial emitter

Daytime limit 80 dBC

Nighttime limit 70 dBC

Commercial emitter

Daytime limit 74 dBC

Nighttime limit 64 dBC

Model Community Noise Ordinance

Issues yet to be addressed include:

- Will only emission limits adequately protect citizens? How can emission limits be integrated with immission limits?

- How can a local noise ordinance be integrated into a larger Community Based Environmental Protection (CBEP) Program?

Conclusions

**Final version expected to be available by
mid - 2002**

**Will provide a model that can be tailored -
useful to all communities**

Supplements local technical expertise

**Can be linked to other local noise control
programs (Community Based
Environmental Protection)**

**Provides model ordinance which is
objective and fair to all**