

Diverse Noise Regulations: The Need for Rational Consistency

Perspectives of the Acoustical Consultant

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Consistency of Regulations

- External vs. Internal Consistency
 - Similarity of Regulations vs. Common Intellectual Basis
- Design vs. Compliance
 - Transient vs. Stationary Sources

A Problematic Example

- Mixed use urban setting
- Industrial/Residential/Transportation
- Application to Expand



Conflicts Between Regulations and Reality

- Must meet NJ Night
- Trucks enter/exit site
- Operations enclosed



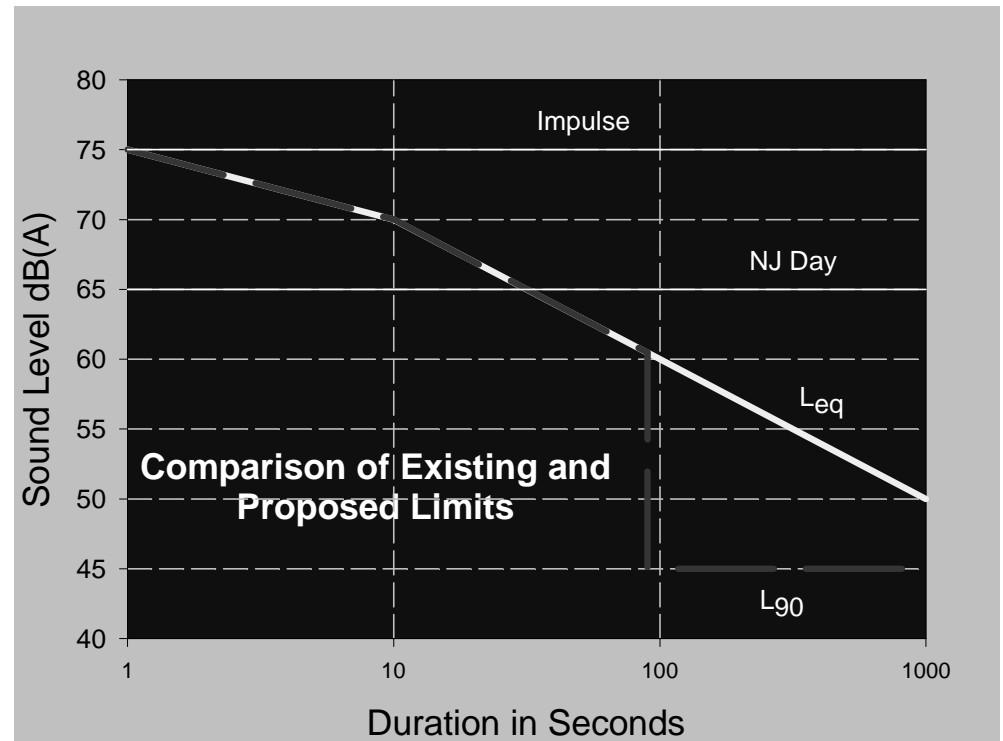
Acceptable Rural Sound Levels Do Not Differ From Urban

- 25 dB(A)
Ambient
- 50 dB(A)
Night Legal
- Design
Criterion?



Proposal for an Environmentally Based Rural Regulation

Day			Night		
L_{90}	L_{eq}	L_{pk}	L_{90}	L_{eq}	L_{pk}
45	50	75	40	45	70



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- Single limit metrics inadequately account for environmental variables.
- Limits that do not reflect ambient conditions may provide inadequate protection to exposed populations.
- Cost-effective instruments exist to permit evaluation of complex regulatory criteria.