

# Noise Abatement and Control

## Checklist for HUD or Responsible Entity

General requirements	Legislation	Regulation
Encourage land use patterns for housing and other noise sensitive urban needs that will provide a suitable separation between them and major noise sources	Noise Control Act of 1972 The Quiet Communities Act of 1978 as amended OMB Circular 75-2, "Comparable Land Uses at Federal Airfields"	24 CFR Part 51 Subpart B Noise Guidebook

**1. Is the project for new construction, purchase or resale of existing, modernization, or rehabilitation of noise sensitive use (i.e., housing, mobile home parks, nursing homes, hospitals, and other non-housing uses where quiet is integral to the project’s function, e.g., libraries)?**

No: STOP here. The project is not subject to the noise standards. Maintain documentation on the nature of the project. Record your determination that the project is not subject to the noise standards in your Environmental Review Record (ERR).

Yes: PROCEED to #2

**2. Is the project located within 1,000 feet of a busy road or highway, 3,000 feet of a railroad, or 15 miles of a civil airport or military airfield? Are there any other potential noise sources in the project vicinity that could produce a noise level above HUD’s acceptable range, including but not limited to concert halls, night clubs, event facilities, etc.... ?**

No: STOP here. Maintain a map identifying distances from roads, railroads and airports and your project. Record your determination. You do not need to calculate a specific noise level.

Yes: PROCEED to #3

**3. Determine the actions to take based on the project and HUD Acceptability Standards.**

**Is the activity for:**

**Construction of new noise sensitive use.** Calculate noise using HUD standards or online tool: <http://www.hud.gov/offices/cpd/environment/dnlcalculator.cfm> PROCEED to 3.a

**Purchase or resale of existing buildings** (existing buildings are either more than 1 year old or buildings for which this is the second or subsequent purchaser). Noise calculation is not required. HUD or RE determines need based on their evaluation of project. Proceed to 3.b

**Modernization.** Noise calculation is not required. HUD or RE determines need based on their evaluation of project. Proceed to 3.c

**Major or substantial rehabilitation** (use the definition contained in the specific program guidelines). Calculate noise using HUD standards or online tool:

<http://www.hud.gov/offices/cpd/environment/dnlcalculator.cfm> Proceed to 3.d

HUD General Acceptability Standards	
<i>HUD determination</i>	<i>Day night average sound level in decibels (dB)</i>
Acceptable	Not exceeding 65 dB
Normally Unacceptable	Above 65 dB but not exceeding 75dB
Unacceptable	Above 75 dB +

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### New Construction

#### Is the Day-Night average sound level:

- Above 75 dB. **Construction of new noise sensitive uses is generally prohibited**, an EIS is required prior to the approval. The Assistant Secretary or Certifying Officer may waive the EIS requirement in cases where noise is the only environmental issue and no outdoor sensitive activity will take place on the site. (Under § Part 50 approval is required of the Assistant Secretary for CPD, under § Part 58 the Certifying Officer must provide approval). The project must be mitigated to acceptable standards. Document the ERR with the noise calculation, EIS, EIS waiver if approved, mitigation requirements and when complete, evidence of mitigation..
- Above 65 dB but not exceeding 75 dB. **Construction of new noise sensitive uses is discouraged** – all new projects require special environmental reviews and may require special approvals prior to construction (except when the threshold has been shifted to 70 dB as described below). Information is provided at 51.104 (b)(1). Document ERR include the noise calculation, special review and approval. Document mitigation requirements and when complete, evidence of mitigation.
- Not exceeding 65 dB. (this threshold may be shifted to 70 dB on a case-by-case basis when 6 specific conditions are satisfied as described at Section 51.105(a)). Noise levels are acceptable. Document the noise calculation in the ERR

### b. Purchase or Resale of Existing Building

#### Is the Day-Night average sound level above an acceptable level (based on noise calculation or your analysis of the site using maps or a site visit)?

- Yes. Consider environmental noise as a marketability factor when considering the amount of insurance or assistance that will be provided to the project? Noise exposure by itself will not result in the denial of HUD support for the resale and purchase of otherwise acceptable existing buildings. Record your determination in the ERR.
- No. Record your determination in the ERR

### c. Modernization

#### Is the Day-Night average sound level above an acceptable level (based on noise calculation or your analysis of the site using maps or a site visit)?

- Yes. Encourage noise attenuation features in alterations. Record your determination in the ERR. Identify how you are encouraging noise attenuation
- No. Record your determination in the ERR

### d. Major or Substantial Rehabilitation

#### Is the Day-Night average sound level:

- Above 75 dB. HUD or the RE shall actively seek to have project sponsors incorporate noise attenuation features, given the extent and nature of the rehabilitation being undertaken and the level of exterior noise exposure and will strongly encourage conversion of the noise exposed sites to land uses compatible with the high noise levels. Document the ERR include the noise calculation and efforts taken to encourage noise attenuation .
- Above 65 dB but not exceeding 75 dB. HUD or the RE shall actively seek to have project sponsors incorporate noise attenuation features, given the extent and nature of the rehabilitation being undertaken and the level of exterior noise exposure Document ERR include the noise calculation and efforts taken to encourage noise attenuation.
- Not exceeding 65 dB. (this threshold may be shifted to 70 dB on a case-by-case basis when 6 specific conditions are satisfied as described at Section 51.105(a)). Noise levels are acceptable. Document the ERR with the noise calculation.

**DISCLAIMER:** This document is intended as a tool to help Region X HUD grantees and HUD staff complete environmental requirements. This document is subject to change. This is not a policy statement, refer to the 24CFR Part 51 Subpart B and the Noise Guidebook for specific guidance.

# Site DNL Calculator

For more information on using the noise calculator, to access the user guidebook, or send comments, please visit the following page:

[Day/Night Noise Level Electronic Assessment Tool](#)

## Guidelines:

- To display the Road and/or Rail DNL calculator(s), click on the "Add Road Source" and/or "Add Rail Source" button(s) below.
- All Road and Rail input values must be positive non-decimal numbers.
- All Road and/or Rail DNL value(s) must be calculated separately before calculating the Site DNL.
- All checkboxes that apply must be checked for vehicles and trains in the tables' headers.
- **Note #1:** Tooltips, containing field specific information, have been added in this tool and may be accessed by hovering over all the respective data fields (site identification, roadway and railway assessment, DNL calculation results, roadway and railway input variables) with the mouse.
- **Note #2:** DNL Calculator assumes roadway data is always entered.

Site ID

Record Date

User's Name

Road # 1 Name:

Road #1			
Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input type="checkbox"/>
Effective Distance	<input type="text" value="30"/>	<input type="text" value="30"/>	<input type="text"/>
Distance to Stop Sign	<input type="text" value="0"/>	<input type="text" value="0"/>	<input type="text"/>
Average Speed	<input type="text" value="40"/>	<input type="text" value="40"/>	<input type="text"/>
Average Daily Trips (ADT)	<input type="text" value="10813"/>	<input type="text" value="569"/>	<input type="text"/>
Night Fraction of ADT	<input type="text" value="15"/>	<input type="text" value="15"/>	<input type="text"/>
Road Gradient (%)	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>Vehicle DNL</b>	<b>59.1345</b>	<b>56.3462</b>	
<b>Calculate Road #1 DNL</b>	<input type="text" value="60.998"/>	<b>Reset</b>	

Road # 2 Name:

Road #2			
Vehicle Type	Cars <input checked="" type="checkbox"/>	Medium Trucks <input checked="" type="checkbox"/>	Heavy Trucks <input type="checkbox"/>

Effective Distance	900	900	
Distance to Stop Sign	0	0	
Average Speed	35	35	
Average Daily Trips (ADT)	17235	908	
Night Fraction of ADT	15	15	
Road Gradient (%)			
<b>Vehicle DNL</b>	<b>37.8425</b>	<b>35.0593</b>	
<b>Calculate Road #2 DNL</b>	<b>39.7075</b>	<b>Reset</b>	

Airport Noise Level

Loud Impulse Sounds?  Yes  No

Combined DNL for all Road and Rail sources

Combined DNL including Airport

Site DNL with Loud Impulse Sound

### Mitigation Options

If your site DNL is in Excess of 65 decibels, your options are:

- **No Action Alternative**  
Cancel the project at this location [DNL Calculator](#)
- **Other Reasonable Alternatives**  
Choose an alternate site [DNL Calculator](#)
- **Mitigation**
  - **Contact your Field or Regional Environmental Officer - [Environmental Contacts](#)**
  - **Increase mitigation in the building walls** (only effective if no outdoor, noise sensitive areas).
  - **Reconfigure the site plan to increase the distance between the noise source and noise-sensitive uses** [DNL Calculator](#)
  - **Incorporate natural or man-made barriers.** See [The Noise Guidebook](#)
  - **Construct noise barrier.** See the [Barrier Performance Module](#)