

HOW NOISE SHOULD BE MODELED

ISO 9613 predicts how outdoor sound travels from equipment to homes, schools, and property lines.

1

SOURCE POWER

Begin with octave-band sound power for cooling, generators, transformers, and other equipment.

2

DISTANCE

Calculate geometric spreading from every source to each receiver location.

3

GROUND + BARRIERS

Account for terrain, surface type, buildings, berms, walls, and screening.

4

WEATHER

Use temperature, humidity, pressure, wind, and conditions favorable to propagation.

A credible model is site-specific and includes the full facility and ancillary equipment at maximum operation.

MODEL IT BEFORE. MEASURE IT AFTER.

EVERY INPUT CHANGES THE ANSWER

A polished report is only as reliable as the equipment data and physical assumptions behind it.

MODEL INPUT

Equipment sound power



Distance and geometry



Air and ground



Buildings and barriers



WHAT IT CHANGES

Starting noise level

Spreading loss

Frequency attenuation

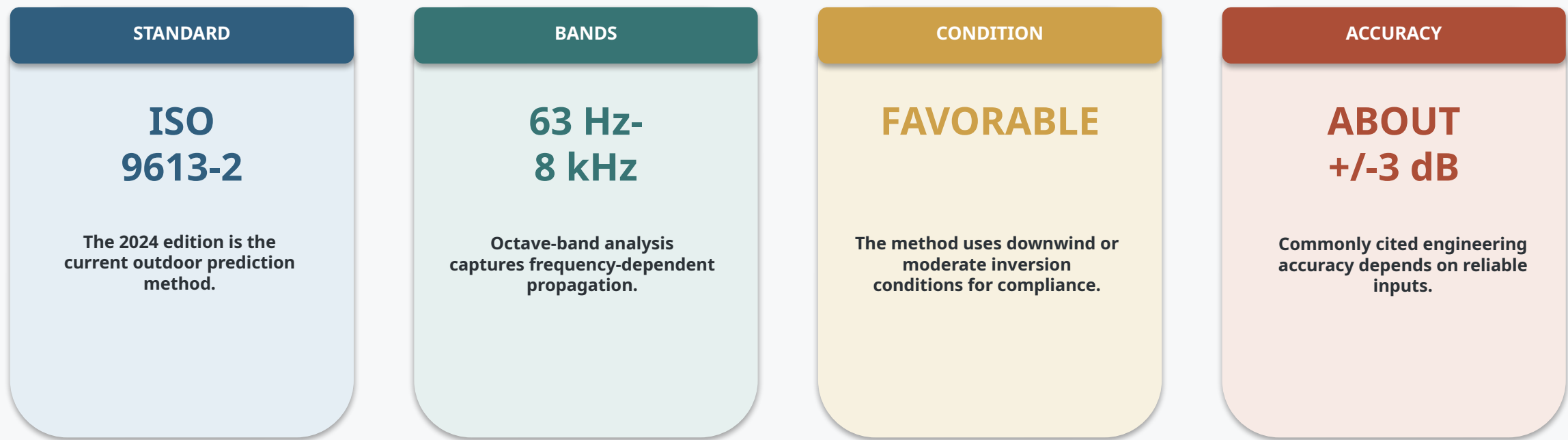
Shielding and reflection

Missing sources, optimistic assumptions, or unreliable manufacturer data can understate the predicted impact.

CHECK THE INPUTS, NOT JUST THE MAP.

FOUR ISO 9613 DETAILS

The current method provides a common engineering language for outdoor industrial-noise predictions.



ISO modeling supports a permit decision; post-construction verification confirms what the operating site actually produces.

PREDICT CONSERVATIVELY. VERIFY PUBLICLY.

THE CITIZEN 4x4

Four questions help citizens and reviewers test a proposed sound study.

- 01

MODEL FULL LOAD

Include cooling, transformers, generators, and all planned phases operating.
- 02

USE SITE TOPOGRAPHY

Reflect actual grades, buildings, equipment locations, surfaces, and barriers.
- 03

CHECK LOW FREQUENCY

Review octave bands and tonal character, not only one overall dBA number.
- 04

VERIFY AFTER BUILD

Require independent testing at property lines and sensitive receivers.

A standard matters only when the ordinance specifies the method, inputs, receivers, conditions, and enforcement.

THE METHOD MUST BE ENFORCEABLE.