Nuisance vs Compliance

What an LA90 does to Noise

An LA90 calculation does things to noise.

It turns loud intermittent noise into quiet noise.

It ignores all the loud noises, like a dog barking, and only uses the quiet noise.

Living in Suburbia – next to a barking dog.

Just imagine you live in a quiet suburban street where you enjoy a peaceful sleep each night.

Then a new neighbour moves in next door with a dog that barks all night.

The barking causes a serious nuisance, and night after night you can't sleep.

What if?

What if when you complain to the local council, the council officer puts out a noise logger to record the dog barking over a period of months?

The logger records all the noise you hear including the barking of the dog at night.

The officer applies an LA90 calculation to the noise data and the barking noise disappears.

The LA90 has disappeared the problem.

Then the officer produces a graph that shows the dog did not exceed the noise limit, there was no barking, it did not cause a nuisance, and there was no noise problem. Then the officer tells you the barking noise is all in your head.

An LA90 sends people mad.

You heard the dog barking all the time the noise logger was out, it kept you awake at night, but the report that comes back says the dog didn't bark.

You are driven mad – first by the dog barking – then by the officer dismissing your complaint.

This is what an LA90 does to noise. It eliminates all the high nuisance spikes that people hear and re-calculates the data to show only quiet noise.

It's a sinister calculation.

It enables the regulators to ignore your complaint.

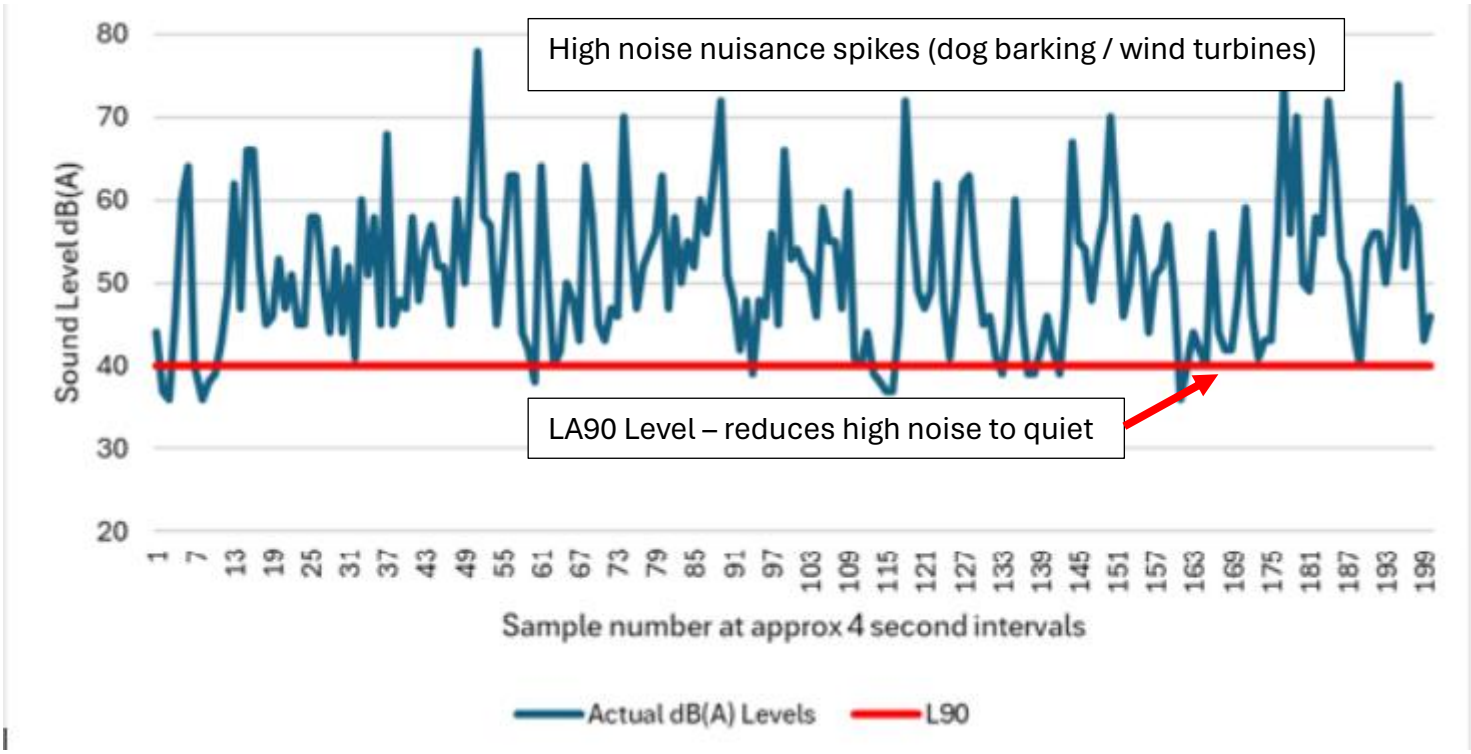
People hear the high noise, but the LA90 disappears the high noise spikes and generates a lower noise level - a quiet level.

This is why local councils don't use an LA90 calculation for disturbance of the peace complaints.

Instead, the council officer visits the house or business premises and listens to the noise disturbance to make their assessment.

They don't set up a logger, leave it out for months, and then apply an LA90 calculation to the noise data.

The blue spikes are the noise you hear – the red flat line is the noise they say you hear.



Wind Farms think they're safe with an LA90.

Wind farms know that an LA90 calculation makes a noisy wind farm quiet.

That's why they spend billions on building their industrial wind energy facilities in quiet, peaceful rural locals next to hardworking farming families.

They know that no matter how loud their wind farm is, the LA90 calculation allows them to fudge compliance and disappear the special high annoying intermittent noises that turbines emit.

This LA90 system allows the wind farm to claim that the noise people hear does not exist, their wind farm does not exceed the limit, and there is no noise problem.

An LA90 and Background Testing.

The LA90 calculation is appropriate for background testing as it eliminates extraneous noise like dogs barking.

A dog barking in a rural environment is not ambient or background noise, it is extraneous noise. An LA90 calculation excludes any high intermittent noises such as dogs barking, loud clunks, sudden bangs, or guns being fired. These types of short sharp high noises are removed by an LA90 application.

But when the wind farm is built, the loud intermittent noises of the turbines become part of the ambient environment; the wind farm becomes the dominant environmental noise.

The screeching of the brakes, the grinding and crunching of the mechanical parts, and the whoosh-whoosh-whoosh of the blades that occurs 24/7 throughout the year become the "new environmental noise".

Wind farm noise is not extraneous noise. It is ongoing and part of the "new rural environment".

Therefore, it is not appropriate to apply an LA90 calculation to post-construction noise assessment of wind farms.

Why is LA90 used for wind farms?

In Victoria, the New Zealand Standard (NZS 6808) is used to assess wind farm noise.

The NZS 6808 was written in the 1990s – when wind turbines were small (40m – 60m high) and located in the far-off hills of New Zealand.

The NZS 6808:1998 was not written to identify intermittent high noise. In those days the variations or intermittent noises of the turbines were not discernable; the noise was heard not as an intermittent noise, but as a constant noise.

Section 5.1.1 of the NZS 6808:1998 states:

.....it outlines a precise method for the post-installation compliance testing of sound from WTGs (wind turbine generators) in the far field, i.e. at a distance where the cyclic variations in sound due to the blade rotation are no longer discernible.

- The "far field" means far away from the noise source.
- The "variations in sound" means intermittent noise.
- "Discernible" means people can't hear the intermittent characteristic of the turbine noise.
- "no longer discernible" means the noise is constant.

When NZS 6808 was revised in 2010 to NZS 6808:2010, the panel, which was made up of wind industry consultants, deleted this clause and included Special Audible Characteristics (SAC).

Wind farms now claim that the turbine manufacturers state there are no SACs. Of course, this is bullshit. The special audible characteristic of the whoosh-whoosh-whoosh as the blade passes the tower is very discernable.

Wind farms are Not Safe from Nuisance

Wind farms think that by using an LA90, they can get away with sleep-disturbing noise.

But an LA90 is evidence nuisance exists.

An LA90 contains high noise as part of the calculation.

You can't calculate a compliant LA90 level without higher noise.

In an LA90 level, 90% of the high noise is ignored. This is the nuisance noise.