



third shutdowns show that the project was below the 45 dBA limit, but the levels before, during and after the middle shutdown at 7 p.m. on 10/22 point to a non-compliant project sound level of 50 dBA. The average total Leq just before and just after was 52.4 dBA while with the project off the level was 48.4 dBA. This 4 dBA differential is just large enough to make a valid calculation of 50.2 dBA for the project component. The frequency spectra before, during and after this shutdown are plotted below.

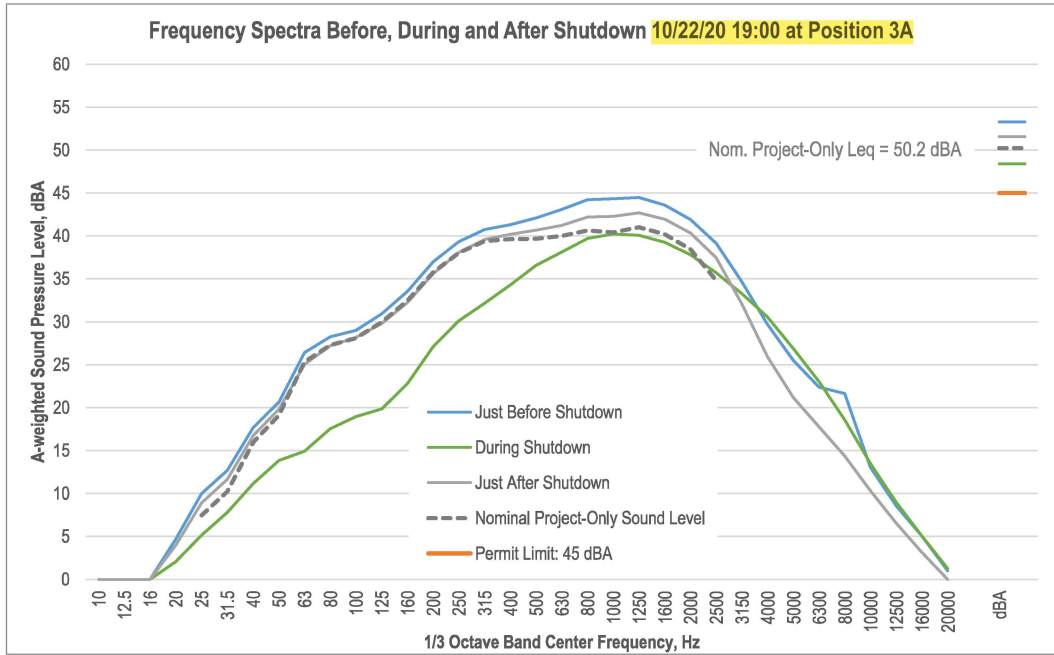


Figure 2.3.3

This graphic indicates that the project’s prominence/audibility generally occurred in the lower to mid-frequencies (about 160 to 2000 Hz) and that the higher frequencies were dominated by background noise, perhaps wind the pine trees near this test position.

During the shutdown at 6 a.m. the next morning (Figure 2.3.4) the project’s prominence is more clearly pronounced in the mid-frequencies, but the sound levels have decreased in absolute terms to the point where the project-only level is back in compliance with the 45 dBA limit.

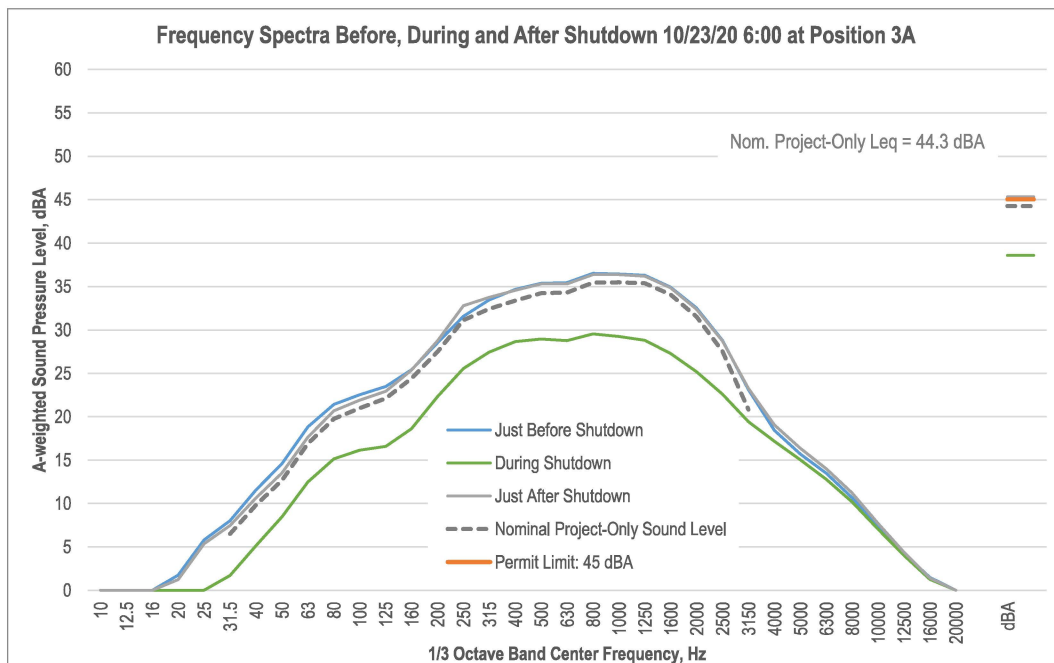


Figure 2.3.4

Although, for reasons that are unclear, the electrical output from the nearest turbines fluctuates around the time of these shutdowns, the consistency in the wind speeds and sound levels, as well as evidence from the audio recordings, suggests that the project was prominent and generally driving the overall sound level above 45 dBA from about 3 p.m. on 10/22 to the shutdown at 6 a.m. on 10/23.

The three remaining high wind periods are shown below in Figures 2.3.5, 2.3.6 and 2.3.7. As with the previous position, the numerous shutdowns that occurred through these three time periods have no effect on the sound levels, meaning that project noise was not prominent and cannot be quantified. In short, there is no evidence that the project sound is over the permissible limit and every reason to believe its contribution to the total observed sound level is small compared to the natural sound level.