

My name is Barry Elkin and I live at 57 Skyline Drive in Acton. The information from Concord indicates "The proposed design includes three 100-kW gas fired reciprocating engine electrical generators that will have a total capacity of 300 kW". In other words, that's 300,000 Watts of power. As a basis of comparison, when completed, all 153 homes in the Quail Ridge community will draw no more than about 25,000 Watts of power. This means that the generators at the proposed water facility will be producing enough power to supply the equivalent almost 12 Quail Ridge communities, or approximately 1,800 homes. That's enough electricity to supply a substantial portion of Acton's homes. That is not insignificant. One has to wonder why that much power is necessary.

My concern is that big power can result in big noise. The material submitted to this Board by Concord indicates that each generator creates a noise level equal to 68dB. That means that three generators produce 72.8 dB of noise. Purdue University tells us that noise in the upper 70's is "annoyingly loud to some people".

But, what really counts is what the State of Massachusetts noise regulations define as unacceptable. Those regulations prohibit more than 10db of noise above "Ambient Levels". The ambient level is defined as what noise exists without the offending sounds. Although Concord has already measured ambient noise at the site, and has submitted to this board a robust explanation of their noise analysis, I believe that since testing was conducted with temporary equipment (ozone generators) located outside the current structure operating at the time, the tests were skewed to favor Concord. Also, testing was conducted during a hot spell with air conditioners in the area running full blast. In effect, the level of ambient noise was artificially inflated, especially since noise from the water plant is likely to be most offensive during evening hours on cool nights, when nearby residents are trying to sleep with their windows open. I am saying that Concord skewed their measurement of ambient noise to reduce the real impact on abutters to be caused by the power generators.

The Acton Zoning Bylaws says that this Board "shall not issue a special permit unless without exception it shall find that the proposed USE will not be detrimental or injurious to the neighborhood in which it is to take place". The Bylaws talks about what might be detrimental, or injurious, and that list includes noise. The Acton Zoning Bylaws provide for the prohibition of the generators. I

believe this Board is required to stand by the Bylaw, and prohibit the installation of the electrical generators proposed by Concord.

However; should this Board elect to permit the installation of gas fired turbine generators at the site, this Board must protect Acton residents by including the following site restrictions:

- Re-testing to determine the true level of ambient noise must be conducted, under the supervision of the Town of Acton or abutter volunteers. This testing must be conducted at night with outside temperatures at or below 65 degrees. That is when residents will be sleeping, or trying to sleep, with windows open, and extraneous noise most injurious. All Concord provided electrical and mechanical equipment not located inside the existing water supply building must be turned off during this test.
- Relocation of the generators inside the proposed building to mitigate potential noise. The manufacturer's material provided by Concord says that this is possible.
- Prohibit use of electrical power generated at the proposed plant, other than on the contiguous property owned by Concord in the Town of Acton. In other words, deny Concord the ability to export or replace power generated at the site for any reason.
- Required Concord to take noise measurements twice a year. During the winter when leaves are off the trees, and in the summer during the peak water usage period. This testing should also be observed by either the Town of Acton or abutter volunteers.

The most important thought I would like to leave you with is that the "offending noise" is the plant and everything associated with it. It is located in a heavily wooded area, and the only ambient sounds are the birds and crickets chirping and leaves rustling. Anything else is offensive.

I see no reason why Concord would object to simply complying with Massachusetts regulations, implementing these simple solutions, and demonstrating they are actually the good neighbor they claim to be.