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M E M O

Date: September 3, 2010
To: Shabnam Barati, Impact Sciences
From: Richard B. Rodkin, PE
SUBJECT: SERC Truck Noise Analysis

At your request, we have prepared a credible worst case construction truck noise analysis for the proposed SERC Project and other concurrent projects at LBNL and UC Berkeley. The analysis focuses on identified truck routes.

Demolition and construction required for all elements of the proposed project would generate construction-related material truck trips. Construction traffic could use Centennial Drive via the Strawberry Gate, or could enter and exit LBNL at the Blackberry Gate. Construction trucks are expected to use University Avenue, Oxford Street, and Hearst Avenue to access the lab. Existing noise levels along these City streets range from between 69 to 70 dBA Ldn along Hearst Avenue and between 70 to 73 dBA Ldn along University Avenue. The noise level along Centennial Drive is about 65 dBA Ldn.

Fehr and Peers Transportation Consultants analyzed anticipated construction truck trips for LBNL in December 2008. These data were updated by LBNL in 2009. The analysis of truck trips includes all the proposed project components and other projects at LBNL. Assuming a worst case scenario, with all of the truck trips utilizing a single truck route, either along Centennial or through the LBNL parking lot to the Berkeley City streets, the maximum daily level of construction truck trips would cause noise levels to increase by less than 1 dBA along the truck routes. The noise of individual truck trips would be distinguishable from other traffic in the same way that existing louder vehicles, including trucks, shuttle busses and city busses are distinguishable from other traffic on the roadway. The impact related to noise from project related construction vehicle trips would be less-than-significant.

Cumulative construction truck traffic was analyzed to determine whether or not it would cause a substantial temporary increase in noise along the major arterials, Hearst Avenue, Oxford Street, and University Avenue used by the construction trucks. Construction traffic volumes were added together for the projects at LBNL, and projects that would be constructed in the same period at UC Berkeley. To demonstrate a worst-case scenario, assuming, all projects are under construction concurrently and all construction truck traffic is traveling along the same arterials, on an average day the noise level is calculated to increase less than 1 dBA Ldn. On a peak day the noise level is calculated to increase from about 1 to 2 dBA Ldn. The second scenario represents the upper estimate of possible noise effects because peak construction truck traffic for all projects is unlikely to overlap. An increase of less than 3 dBA Ldn is not substantial and the cumulative noise impacts from construction truck traffic would be less-than-significant.