DEPARTMENT OF THE ARMY
NEW ENGLAND DISTRICT, CORPS OF ENGINEERS
696 VIRGINIA ROAD
CONCORD, MASSACHUSETTS 01742-2751

REPLY TO
ATTENTION OF

10/24/05

Office of Counsel

October 21, 2005

Ms. Sherilyn Burnett Young
Rath, Young and Pignatelli
P.O. Box 1500
Concord, NH 03302

Re: Freedom of Information Act Requests Dated October 12, 2005

Dear Ms. Young:

I am writing regarding your Freedom of Information Act requests referenced above. It is the policy of the U.S. Army Corps of Engineers to release the maximum amount of information under FOIA. Enclosed you will find a document responsive to your request.

Sincerely,

John P. Almeida

John P. Almeida
Assistant District Counsel

Acentech Incorporated
33 Moulton Street
Cambridge, MA 02138

Telephone: 617-499-8000
Facsimile: 617-499-8074
E-mail: postbox@acentech.com

Acentech

March 15, 2005

Michael Hicks, Esq.

Department of the Army
New England District Corps of Engineers
696 Virginia Road
Concord, MA 01742

Re: Review of Valley Motorsports Project Noise Studies
Tamworth, New Hampshire
Acentech Project Number 606237

Dear Mr. Hicks:

As you requested, I have reviewed the noise studies for the above-referenced project. These included reports by Tech Environmental, Inc. (TE), dated June 14, 2004 (entitled *Sound Study for the Valley Motorsports Park Project Tamworth, New Hampshire*), and by Harris Miller Miller & Hanson, Inc. (HMMH), dated August 13, 2004 (entitled *Noise Effects from Proposed CMI Racetrack in Tamworth, New Hampshire*), as well as letters dated April 7, 2004 and July 15, 2004 from HMMH to Rath, Young and Pignatelli, P.A. I also requested, received, and reviewed background data supporting the TE and HMMH studies from TE and HMMH representatives. I toured the project site on February 18, 2005 under the guidance of Craig Lizotte from ESS Group, Inc. and Jim Hoenscheid from Club Motorsports. After the site tour, Erik Kalapinski from TE took us on a tour of the community closest to the project site.

The TE report was supported by the project developer (Club Motorsports) and the HMMH report was supported by a group representing the community (FOCUS Tamworth). Although the credentials of the experts involved in each of these studies make them fully capable of providing credible opinions in this case, their conclusions about the potential impact of the project on the community are diametrically opposed. The main reasons for this difference in opinion are that each used different modeling programs to predict the noise levels with the project and each used different criteria to judge the acceptability of the noise in the community. Each of these aspects of these studies is evaluated below.

Before discussing these points, it is important that the facility be appropriately characterized. There seems to be disagreement between the developer and the community about whether or

not the proposed facility should be classified as a racetrack. The attached letter (dated March 7, 2005 from Frank Delgiudice to me) from the Army Corps of Engineers indicates that this facility should be characterized as a racetrack for this evaluation.

I understand that your primary interest is that I comment on the developer's report, and that is the focus of the following discussion.

Modeling

The TE report used the Federal Highway Administration (FHWA) Traffic Noise Model (TNM) to predict the noise levels that would be generated by the proposed facility. Independent of the TNM modeling results, the attached email from Mark Ferroni[1] of the FHWA and memo from Steve Ronning of the FHWA are testaments to TNM not being appropriate or adequate for modeling racetrack noise. Since the model that was used as a basis for TE's analysis was not appropriate for this project, it is unnecessary to further discuss issues with the TE modeling effort.

Criteria Used in TE Report

The TE report used FHWA and New Hampshire Department of Transportation (NHDOT) noise criteria, as well as early U.S. Environmental Protection Agency (EPA) guidelines to assess the potential noise impact of the facility on the Tamworth community. NHDOT regulations are the required State interpretations of the FHWA regulations, so the NHDOT and FHWA policies are each in the same category. The email referenced above from Mark Ferroni of the FHWA states that the FHWA criteria "are not intended for use in the analysis of racetrack noise." Therefore, FHWA criteria are not appropriate to use for this analysis. Since the NHDOT criteria are directly linked to the FHWA criteria, the NHDOT criteria are also not appropriate to use for this analysis.

The EPA guidelines used in the TE report are more than 30 years old and are the product of the federal Office of Noise Abatement and Control (ONAC) division of the EPA. This office was funded from 1972 to 1982 and has not been funded since 1982. The guidelines written in the 1974 EPA document referenced in the TE report were based on potentials for hearing loss and activity interference, were based on studies of densely populated areas, and were not intended to be used as regulatory standards or criteria. Although the ONAC had intended to expand their work to include less populated areas and to establish regulatory standards and criteria, their funding was cut off before that occurred. Since the ONAC has been left unsupported since 1982, the responsibility for dealing with community noise issues has been shifted from the EPA to individual states and local municipalities.

It is important to note that the EPA guidelines use 24-hour averaged values in their criteria. These averaged values do not consider the potential annoyance caused by the variation in

[1] Current Noise Team Leader at the FHWA. The reference to Bob in this email refers to Bob Armstrong, the former Noise Team Leader at the FHWA.

noise levels that would be occurring from the acceleration and deceleration of vehicles using a racecourse on a daily basis. Based on these points, the EPA guidelines may be appropriately used as a first step in developing criteria, but they are not appropriate to use as the final criteria for this analysis. Appropriate criteria would include references to current community noise regulations and guidelines currently used specifically for racetracks.

Criteria Used Elsewhere

Racetracks around the country have adopted a variety of limitations to peacefully coexist with nearby residential communities. These limitations have typically taken one of two forms – either the racetrack controls the noise of its participants by enforcing a drive-by sound level limit (typically at a distance of 50 or 100 feet from passing vehicles) in the facility or the communities enforce the racetrack noise limits by instituting a noise ordinance limit outside the facility. Reasonable sound limits would consider what has worked for other communities while not overly restricting the operations of the racing facility.

When asked about a comparable facility to the one being proposed here, the developer referenced the Lime Rock Park facility in Lakeville, CT. The residential communities near Lime Rock Park reached an agreement with that facility in which a drive-by limit of 89 dBA (at 50 feet) is enforced by the facility. This limit is strictly enforced and the facility peacefully coexists with the community (according to Lime Rock Park personnel, from a personal telephone conversation). The limit that the proposed facility is planning to enforce is 100 dBA at 50 feet, according to the TE report, which is 11 dBA higher than the Lime Rock Park limit. Considering that each 10 dBA increase sounds twice as loud to the average person, an 11 dBA increase would be more than twice as loud as the Lime Rock Park limit.

Also note that the Lime Rock Park track is on a relatively level elevation in a valley, and the proposed track will be built on the side of a mountain that overlooks the Tamworth community. This provides less opportunity for any topographic shielding than is available for Lime Rock Park. There is also a 40-foot tall rock ledge that is planned for an upper section of the track which provides a large surface to reflect the sound to the community it faces. These topographic features will send more sound into the community than is the case at Lime Rock Park. Having visited the project site, I experienced the low background sound levels (documented in the TE report) in the area resulting from the few sound sources in the area. The combination of low background levels and topography more suited to send sound from the project site into the community would not justify higher sound limits for this project over those at the Lime Rock Park facility. Note that, although trees may provide some visual shielding between the proposed facility and the community, they do little to reduce sound propagation unless they are very densely arranged and more than 100 feet in depth.

Discussion and Recommendation

As discussed above, the TE report does not adequately address the potential impact of the proposed facility on the community. Its modeling is inappropriate and its criteria are deficient for a proposed facility of this type to peacefully coexist with a nearby residential community. One point of clarification that needs to be stressed is that the developer states that the noise generated by the proposed facility will not be any louder than that generated by passing vehicles on Route 25, local industry, or the activities of residents in the area. It must be recognized that this facility, as proposed, will operate during daylight hours year-round and the sound generated by its participants will be heard throughout the community. The frequency content and the duration of the noise events that could be caused by this facility will sound like no other sound sources in the area. Without appropriate limits, this will change the environment of the Tamworth area.

Although some communities use noise ordinances to limit community noise levels generated by these kinds of facilities, weather conditions can cause sound travel over distances greater than 500 feet from a sound source to fluctuate widely. For the same sources and locations, sound pressure level variations of as much as ±20 dBA are commonly seen at distances greater than 1000 feet. Since the Tamworth community, for the most part, is more than 1000 feet from the proposed racing activities, this point is relevant to this case. Enforcing limits that depend on weather conditions is not practical from any viewpoint. The only way to eliminate the effects of weather conditions is to establish sound level limits within 200 feet of the source, thus eliminating the community measurements and requiring track-side measurements.

Given the information discussed above, instituting a track-side noise limit that is at least as restrictive as that used at the Lime Rock Park facility is a practical compromise to have the proposed facility peacefully coexist with the Tamworth residential community.

Feel free to contact me with any questions about this matter.

Respectfully submitted,

James P. Cowan, INCE.Bd.Cert.

Attachments as noted