

MEMORANDUM

Date: August 18, 2008

To: Lee Ecker, Clough Harbour Associates

From: Damien Bell, Epsilon Associates, Inc.

Subject: Albany Landfill Alarm Noise Issue

The purpose of this memorandum is to answer the NYSDEC comment regarding the Albany Landfill alarm-noise report completed by Epsilon. The report was dated July 3, 2008.

The noise prediction results in the Epsilon report assumed that a specific type of alarm would be used within the future expansion, that being the same alarm currently used on the mobile crusher/compactor used at the landfill. The operational noise level from that particular mobile-crusher alarm was measured to be 81 dBA from 50 feet away. The Epsilon report showed that using the mobile-crusher alarm within the expansion area would increase alarm sound levels by 3 to 11 dBA above current levels, and that it would create a “prominent discrete tone” condition at several residential locations. The Epsilon report also showed that using a different alarm, such as the “Preco 270”, would only increase alarm sound levels by 0 to 2 dBA above existing conditions. Using the Preco 270 would also eliminate the “prominent discrete tone” condition at all nearby residential locations, except for the horsefarm (Location 2).

The reviewer asked if using an even quieter alarm, such as the Preco Model 1028, would also achieve a reduction in the “discrete tone” sound level. Epsilon does not have access to detailed noise data for the Preco 1028. However, Preco’s product brochure states that the 1028 sound output is 10 dBA lower than the Preco 270 mentioned in the Epsilon report. Assuming that the Model 1028 emits noise at the same audible frequency as the Model 270, it would definitely achieve at least the same sound level reduction as the Model 270. The Model 1028 would also prevent the existence of a “prominent discrete tone” condition at all of the nearest residences, including the horsefarm location.

The reviewer also asked why alarms from other vehicles cited in Section 3 of the DEIS were not mentioned in the Epsilon alarm noise report. The DEIS cited a compactor, a bulldozer, an excavator, and a waste shredder. Epsilon measured alarm sound levels from the compactor (i.e., mobile crusher), and this is clearly described in the Epsilon report. The sound output for

the crusher/compactor alarm (at the actual alarm source) was determined to be approximately 112 dBA. For comparison, the loudest back-up alarm made by Preco has a source sound level of 112 dBA.

It is believed that the alarm on the compactor/crusher represents worst-case alarm sound levels. Alarm sound levels for the other machines were assumed to be practically identical to the compactor/crusher alarm (and certainly no louder), so there would have been no added benefit to measuring alarms for those machines. The alarm sound level used in the Epsilon report was assumed to represent worst-case conditions (i.e., loudest).

The back-up alarms for the other large on-site machines (bulldozer, excavator, etc.) would also have to be replaced with either Preco 270 or Preco 1028, in order to avoid possible noise impacts or a "prominent discrete tone" condition. This may not have been clearly stated in the July 3, 2008 report.