



Date: 8/25/09  
To: **Peter Lowitt**  
Cc: Neil Angus  
From: Doug Sheadel  
RE: Review of the Compliance Measurements, August 15, 2009

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Peter,

The purpose of this memo is to document a review that we conducted of Evergreen Solar compliance measurements made by Cavanaugh Tocci Associates at location R1 (DREZ Property Line) on August 15, 2009. The DEC had coordinated with the Pan Am facility to stop the local train sounds between 1:30 and 3:00 am. We met at the Evergreen facility soon after midnight and made our way to Myrick Lane and then 62 Old Mill Road (Receptor R1, DREZ). Because the measurements did not indicate compliance with the objectives of the August 17 goals (38 dBA), Modeling Specialties did not issue a formal review for this test.

The trains quieted down on schedule based on DEC staff coordination. But the sound was still well above the required 38 dBA. The lowest levels measured were about 42 dBA. Past tests failed to meet the limits but always seemed to be dominated by other ambient sources. The sound field during this test seemed to be dominated by Evergreen sources. While no formal investigation was launched by Modeling Specialties at that time, the dominant source seemed to be characteristic of the cooling tower operation. It was a hot and muggy night, so the cooling tower operation was probably somewhat elevated. The cooling tower was reported by Evergreen staff to be operating "normally". DEC staff have requested the actual operational status of the plant during this test to compare with the noise level measurements.

While the Evergreen facility has been observed to operate within their 38 dBA criteria (July 25, 2009), the objective of this test was to demonstrate the facility's consistent compliance with the nighttime standard. Based on our witnessing of the CTA test and our supplemental measurements, the August 15 test failed to achieve that goal. The re seemed to be widespread HVAC sound from neighboring facilities that kept the ambient from being as low as the necessary 33 dBA. At the same time, the dominance of the Evergreen sources qualitatively indicates that the Evergreen facility was operating at a sound level higher than their intended 37 dBA.

Thank you for the opportunity to review the Evergreen Solar study.

Sincerely,  
Modeling Specialties,

A handwritten signature in black ink that reads "Douglas L Sheadel". The signature is written in a cursive style.

Douglas L Sheadel  
Principal Scientist