

Hello Chris,

Thank you for the email and supporting documentation regarding marine sound level enforcement issues. Regarding your request to review and update SAE Standards J1970 and 2005, I am not certain what you are looking for in terms of revision of subject standards. I have been involved in the development of SAE Standards since 1971 when the Clean Air Act was formulated thereby prompting the marine industry to prepare for federal regulation in terms of recreational motorboat pass by sound levels. It was at the behest of the EPA that we developed SAE J34 only to eventually learn that EPA ruled against regulating boat noise, thereby leaving enforcement up to the individual states. Subsequently, various states began to express interest in regulating boat noise so they developed regulations based on SAE J34 despite my protestations. The marine industry never intended SAE J34 to be used for anything other than factory certification of boat noise in compliance with implied federal regulations and the adoption of SAE J34 by the various states was not recommended for law enforcement purposes.

By the mid-1980's inland lakes began to experience an influx of "off-shore" boats which led to an onslaught of boat noise complaints. Our first effort to evaluate the impact of "off-shore" boats (built with thru-transom exhaust systems) was in 1987 at a Sarasota, FL location when I organized the first marine industry evaluation of these high performance craft. As a result of that test program we formed a Sound Level Task Force comprised of law enforcement (NASBLA) and marine industry (NMMA) representatives. As Chairman of that Task Force I worked very closely with NASBLA representatives in an attempt to develop law-enforcement-friendly sound level measurement standards resulting in formulation of the Model Noise Act which was based on a stationary test method (SAE J2005) and a shoreline test method (SAE J1970). Unfortunately, the stationary test method was in the range of fair to poor in terms of being an accurate measure of exhaust noise during on-plane operation. That situation deteriorated rapidly when boat manufacturers began to equip their boats with swim platforms thereby rendering the stationary test method essentially ineffective as a law enforcement tool.

In 2002, at the request of NASBLA we evaluated some techniques to make both standards more "real-world" friendly by relaxing the test site specifications so that law enforcement testing could be performed in virtually any marine environment so long as the ambient sound levels did not negate the accuracy of the sound level measurements. Consequently, the latest versions of SAE J1970 and SAE J2005 reflect, to the best of my understanding, the desires of law enforcement in terms of applicability in a typical recreational marine environment.

Regarding law enforcement training, I have personally conducted training in Utah, California, Texas, New Jersey, New York, Ohio, Iowa and Wisconsin and continue to respond to any and all requests from personnel representing Natural Resources Departments/personnel. Basically the only complaint that I now hear from these sources is more or less total frustration with the stationary test method because the test does not accurately portray the on-plane noise levels due to the absence of engine load in the idle mode. This is the result of some basic laws of physics and the only way that I know of to improve the accuracy of the test method is to replace the stationary test mode with an acceleration test mode wherein we can provide the necessary engine loading. The bottom line is that the problem law enforcement personnel are experiencing is related to some fundamental laws of physics with regard to engine loading/exhaust noise which simply cannot be addressed by a stationary test method.

Now, I understand the reluctance of law enforcement to perform moving-boat noise enforcement but I am optimistic that we can develop a procedure that will address the safety concerns with the end result of an accurate, reliable test method that will satisfy the needs of law enforcement. I have done some very limited acceleration testing on my own and, from my perspective this test method at the very minimum deserves a look.

Included in the correspondence you sent me there was a question about the basis for a 75 dBA shoreline sound level limit. While the answer to that question may not be obvious to non-acousticians, the training that I provide for law enforcement personnel covers some basic acoustics background materials. Adequate justification for the 75 dB limit is well documented in my training and should be covered in any training course provided by or for NASBLA. You did make mention of some plans for national training, and it might be advantageous if you would forward the proposed training materials to me for review. I would be happy to critique the curriculum to ensure technical accuracy of the curriculum as well as compatibility with accepted acoustical practices and applicable SAE Standards. Without some level of expert review your national training program runs the risk of improper training and subsequent certification, so I would urge you to do so.

In conclusion, I would be happy to work with NASBLA in any way possible to revise/update the SAE Standards as well as the nationwide training/certification curriculum. I remain devoted to satisfying the needs of law enforcement personnel in any way that I can and look forward to providing any assistance NASBLA requires.

Dick Lanpheer