

AIHA's Veteran of Hearing Conservation Noise Control Engineer Joins IHs to Prevent Hearing Loss

By Kay Bechtold, Assistant Editor, *The Synergist*

Editor's note: *The individuals featured in this series were selected from responses to a survey that AIHA conducted in 2014. For background, see ["The IH Hero Gap"](#) in the January 2015 issue.*

In 1981, Dennis P. Driscoll, fresh out of North Carolina State University with a master's degree in mechanical engineering, presented a paper at AIHce on OSHA's pending Hearing Conservation Amendment. He remembers the conference as the educational experience that taught him about industrial hygiene and the different disciplines within the IH community.

There were other speakers on noise, hearing conservation, and hearing protection who were all part of that conference, says Driscoll, who is now president and principal consultant of Associates in Acoustics, Inc., in Evergreen, Colo. But noise was just one small facet, even though it's a critical technical expertise within [industrial hygiene]. Networking with many health and safety professionals [at AIHce] helped me understand their purpose and how we work hand-in-hand to protect employee hearing.

Driscoll joined AIHA following the 1981 conference, and he hasn't missed an AIHce since. He became a member of the Noise Committee in 1982 during a time when hearing conservation was becoming more clearly defined in regulation. OSHA's hearing conservation amendment was incorporated into its occupational noise exposure standard in March 1983.



Dennis P. Driscoll, PE

Driscoll was at the right place at the right time when the new regulations were finalized. At Amoco Corporation, he was already in charge of noise control engineering; now he was tasked with managing the company's hearing conservation program. When Amoco's industrial hygiene staff completed a risk assessment at the company's facilities, Driscoll would work with engineers to mitigate noise in cases of overexposure.

Worked hand-in-hand with the industrial hygiene staff and recognized that the profession—the American Industrial Hygiene Association—really has the contact with the field people in the plants to help implement the noise control programs, which is what I was advocating at that point in my career, says Driscoll.

WELL RECEIVED SINCE 1985

Driscoll first delivered his professional development course (PDC) "Noise Control Engineering" at AIHce 1985 in Las Vegas. The PDC has proven to be one of AIHce's most popular educational attractions: on session evaluation forms, which attendees use to assess the quality of course materials and presenters' skills, "Noise Control Engineering" has received the top ranking among all PDCs 13 times.

Driscoll continuously upgrades and improves the course based on attendees' feedback. He uses detailed, practical examples to explain machinery and acoustical products, and indicate which solutions work best in the real world. A strong dose of case histories helps attendees relate the course content to the equipment they have in their own facilities.

"The science of acoustics is an exact science," Driscoll says. "But when you get into noise control, it's really an art form, as is a lot of industrial hygiene. You have to apply your exact science of the discipline with what will be reasonable, practical, and workable from the user's standpoint in the plant."

Attendees also receive USB drives packed with reference materials, including videos for training courses and spreadsheets to help manage noise data and perform assessments and calculations.

"I'm basically trying to give away the store so that [attendees] can go back and take care of a lot of the noise problems they have at the plant level," Driscoll says. "And if they get overwhelmed, they'll be able to call in experts or consultants to come in and help work with them, and they'll understand the science themselves."

AN ACTIVE VOLUNTEER

Driscoll has been a board-certified noise control engineer since 1980 and a registered professional engineer (PE) since 1989. He is a member of six professional associations, including AIHA, the National Hearing Conservation Association (NHCA), and the Acoustical Society of America (ASA). He served as chair of AIHA's Noise Committee from 1986 to 1988, and was president of NHCA in 1997. 1998. Currently, Driscoll is a member of AIHA's Standards Council and continues to volunteer on the Noise Committee.

"All of that work in a volunteer role has been important for helping the associations themselves," he says. "But it's also been good for networking with the professionals and getting them to understand how my expertise can help them prevent noise-induced hearing loss."

Since 1999, Driscoll has been AIHA's primary or secondary representative on four American National Standards Institute (ANSI) standard groups: ANSI S1, Acoustics; ANSI S2, Mechanical Vibration and Shock; ANSI S3, Bioacoustics; and ANSI S12, Noise. As the subject matter expert on AIHA's Noise Committee, he serves as the primary or secondary reviewer of ANSI standards from these groups, which include standards on acoustical instrumentation, measurement protocols, audiometric testing, and other areas related to noise and hearing conservation. He is also a representative on two technical committees on noise and acoustics for the International Organization for Standardization (ISO) that are analogous to the ANSI committees on which he serves.

We're basically looking out for the benefit of the members of AIHA [to ensure that] they're well served by these standards and that their input is considered," he says.

The AIHA Noise Committee was fairly active in providing comments on standards that addressed how to rate the effectiveness of hearing protection devices, Driscoll says. Another example of a standard that required more extensive review and comment, both for ISO and ANSI, was one related to noise exposure profiling, or how to construct noise exposure throughout the day using sound level data and time durations of exposure.

Driscoll was one of the editors of [The Noise Manual](#), 5th edition, which was published in 2003 by AIHA Press. He co-authored chapters 9 and 15, Noise Control Engineering and Community Noise.

The 6th edition of *The Noise Manual* is nearing completion and will cover the latest technology available on noise control, including new subjects such as fit-testing of hearing protection devices. Driscoll returns as both an editor and author for the upcoming edition.

Hearing conservation program management has improved, as well as how we analyze our acoustical and audiometric data, or hearing test data," Driscoll says. "The science continues to evolve, and there's a lot of knowledge that's been pulled together since the fifth edition was published."

TODAY'S NOISE CHALLENGES

Since Driscoll entered the profession 35 years ago, acoustical instrumentation has vastly improved, and the risk of noise-induced hearing loss is far more recognized. He says that more companies today are committed to preventing and eliminating the risk, in contrast to the 1970s and 1980s, when they simply managed the risk through a hearing conservation program. But even with this shift in focus, industrial hygienists still face several challenges related to noise.

Many IHS don't have the time to do all of the things they're asked to do, which complicates their efforts to implement noise controls and sustain those benefits over time, Driscoll says. The key is to rely on expertise at the plant level to sustain low noise through good equipment maintenance.

There are a handful of primary noisemakers in plants, one of them being compressed air usage," Driscoll says. "If industrial hygienists focus on maintaining their efforts in controlling compressed air, maintaining equipment in good working order, and making sure their enclosures are acoustically tight, they would probably have the biggest noise reduction benefits at minimal dollars that they could imagine."

Many noise control problems lend themselves to straightforward solutions, Driscoll says. "But the time that [industrial hygienists] need to identify and implement those solutions isn't always allocated to them."

"A PIONEER IN THE FIELD"

In 2013, the Academy of Industrial Hygiene recognized Driscoll for his many contributions to noise control and hearing conservation with the [Henry F. Smyth, Jr. Award](#).

Dennis's passion for teaching and learning has been a hallmark of his success in helping industrial hygienists and engineers do a better job in reducing noise exposures and protecting people, said then-Academy President S. Zack Mansdorf. He has coached hundreds of IH professionals through specific noise control projects and created many valuable tools to help engineers find the best noise control solutions. He is a pioneer in the field and an outstanding occupational health professional.

For his Smyth Award lecture at AIHA's Fall Conference in 2013, Driscoll addressed the challenges of occupational noise and highlighted the importance of targeting education to each specific audience. He urged attendees to join him in embracing the cause of hearing loss prevention.

We can all start today and make a brand-new ending, he said. So be that person who embraces the cause. Lead, don't wait to follow.

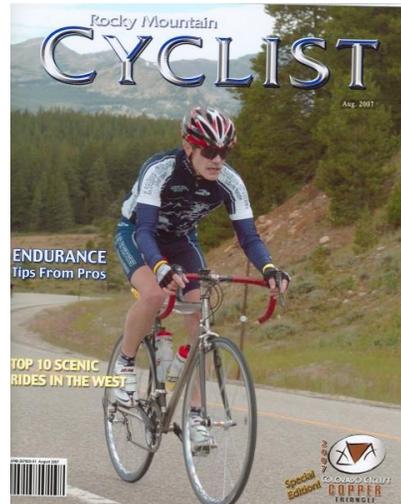
Staying Active during Down Time

In his free time, Driscoll is an avid road cyclist who enjoys organized rides ranging from one-day, 100-mile century rides to those that last up to a full week and cover 500 to 600 miles. His passion for cycling has taken him to France, Spain, and Italy.

In a typical year, I will ride my road bike about 4,000 miles, mostly in the Colorado mountains, he says. It keeps me off the couch.



Driscoll at the start line of the 2009 "El Tour de Tucson" cycling event.



Driscoll was featured on the cover of the August 2007 issue of Rocky Mountain Cyclist magazine.

Driscoll's Career: By the Numbers

- **745** noise control engineering or noise exposure survey reports written for industrial clients
- **337** noise control engineering, hearing conservation, and community noise seminars presented at professional conferences or client locations
- **57** conference presentations, not including workshops or seminars
- **17** lay articles and media interviews on noise-related issues
- **27** countries visited for noise control and/or hearing conservation services