Proposing a new safety collaboration

BY FRANK PIA

For the past 50 years, the swimming-pool industry, its various educational committees and the National Swimming Pool Foundation have conducted programs and funded research projects aimed at reducing the incidence of aquatic accidents.

If recent statistics are on the mark, those efforts have made a difference: At the very least, incidences of drowning and diving accidents have not increased in pool settings despite the fact that the number of pools has increased dramatically in recent years.

Nonetheless, the swimming-pool industry continues to be criticized by the media, consumer groups and safety advocates for not implementing more comprehensive accident-prevention programs for backyard-pool owners.

How can the industry address the issue of childhood drownings and spinal injuries that occur in backyard pools without interfering with the marketing of its products and services? This **Commentary** offers a proposal that might meet the need.

FINDING THE ANALOGIES

When a consumer buys a home, insurance companies frequently conduct fire- and theft-prevention audits before issuing a policy. I propose that a similar type of risk-management program be used as a vehicle for familiarizing homeowners with the safety issues related to use of their swimming pools — a pool-safety audit, if you will.

An educational program will evolve as a consequence of such a risk-management program — something similar but not identical to the driver-education system that now operates in this country — that will be directed toward reducing pool-related accidents currently costing insurers millions of dollars annually.

Here's a helpful analogy: Although automobile manufacturers provide purchasers with information about the proper operation of their vehicles, they do not *themselves* conduct driver-education classes. Similarly, the swimming-pool industry should continue to provide pool buyers with safety information in the manufacturer's role.

But now the task of creating an awareness of liability issues will flow to the insurance industry, which will certainly develop a means of educating homeowners about the safe operation and proper supervision of their backyard pools — perhaps in conjunction with the American Red Cross?

To be sure, it's not possible to conjure an integrated pool-safety system like this overnight. But the insurance industry currently pays millions of dollars in liability judgments each year for backyard pool drownings and diving accidents. With the current economic climate and reports of record financial losses among insurers, isn't it likely that the insurance industry would jump at a method for reducing its liability costs?

MOTIVATED PARTICIPATION

Between riots, hurricanes, fires, floods and earthquakes, insurance commissioners and insurance-industry spokespersons have all been declaring that insurance companies must get their liability exposure under control by paying attention to future risks.

• Drowning and diving accidents in backyard pools may seem to represent a relatively small slice of these companies' liability risks by comparison to massive natural disasters, but approximately 500 to 700 people become quadriplegics each year from diving accidents — and the cost of the lifelong care of a paralyzed diver has been estimated to be in excess of a million dollars.

And these are risks that can easily be reduced through education.

• In 1987, a study found that percent of all swimming-pool drown occurred in single-family residential pc In addition to these fatalities, many n drowning victims incur either acute-c hospital charges or suffer irrevers brain damage that can require long-t medical and nursing care.

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That education is the solution is clear consensus within the fields of aq ics and injury epidemiology: It is sin the best and most direct method for insurance industry to reduce its fu pool-related liability risk.

GETTING STARTED

The first step in this proposal is for insurance industry to require that ho owners and commercial policyhol indicate if a swimming pool is presen their premises.

This identification could occur w a client applies for insurance coverag during the renewal process. Once requirement is adopted nationally, t a data base leading to a cost-effect site-specific education and warn program would be devised and cont ally updated.

After a pool owner has initially b identified through an insurance ap cation or renewal, a data questionn would be forwarded. This questionn would require the pool owner to ch off information about variables sh to be significantly corre ed with drowning diving accidents.

These variables wo include but not be limite the age and gender of children at home, whe the pool is abovegroun inground, the depth of w in the shallow and deep e whether a diving boar slide and either a spoor hopper-shaped botto

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present, and the type of fencing or other barriers limiting access to the pool.

This data would be processed, and appropriate educational materials — formulated or selected by pool-safety experts for that specific class of pool — would be sent to the pool owner.

This multifaceted educational program should be coordinated by a credible, acknowledged leader in safety education — an organization of the stature of the American Red Cross. Whatever agency is chosen should have at hand a substantial network of educational resources enabling them to devise and mail educational materials — and to use this data to conduct pool-safety seminars in nearly all the communities of the United States.

A POSITION OF STRENGTH

In a 1987 technical report, *Injury Control Initiative*, the authors noted that injury-control interventions fall into three broad and often interrelated categories: product design and environmental adaption, legislation and regulation, and education and promotion.

They also identified the American Red Cross' injury-control strength as education and information strategies. Since early in this century, the American Red Cross has awarded an amazing number of safety certificates and has conducted the largest number of injury-prevention classes in the United States.

If not the American Red Cross, then another agency of similarly high repute must be identified to give pool owners the assurance that the information and education they are receiving is clear, unbiased and accurate.

This proposal will harness the safety agency's capability for drowning and spinal-injury prevention by enabling them to focus their educational efforts on high-risk groups in a specific setting. In addition, the co-factors of injury can also be addressed.

Funding, the critical part of any cost-effective, site-specific educational effort, could be obtained by raising the premiums of residential and commercial pool owners by just a few dollars annually — certainly no more than $2 or $3.

The revenue generated from more than 5 million inground and aboveground pools in the United States would cover the compiling, publishing, and mailing of materials to pool owners. Also, this system would generate a data base of injuries for various types of pools that would be updated on a continual basis.

DEVELOPING A SOLUTION

It is time for the swimming-pool industry, aquatic professionals, injury epidemiologists and insurers to join together, stop cursing the darkness and light a candle.

By embarking on an educational program financed by a small increase in its fees, the insurance industry can help prevent the needless accidents that now cripple and kill so many of our nation's youth.

If the collaboration suggested here is accepted and the proposed education model implemented, we can return pool ownership to what it could and should be: *a true pleasure.*

LETTERS TO THE EDITOR

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water circulated by air blowers in order to reduce swelling in their limbs; treatment time is thereby cut in half relative to other methods.

• As for the issue of the cooling effect of blowers, the effervescence created by air blowers does, in fact, give a sensation of cooling. However, in many cases it is not cool air that soakers feel. Rather, it is the human body's ability to release moisture (perspiration) on the surface of the skin the air bubbles contact.

Most air blowers incorporate a flow-through motor that operates at a temperature in excess of 150 degrees: Air passes directly over the windings and is heated somewhat before entering the spa. Still, unless an in-line heater is added to the blower line, the air will feel cooler than the water.

As for a blower's effect on the water temperature itself, most heat loss when a spa is operating is due to the breaking of the *surface* of the water from jet action and blower action. Whenever the spa is operating and the insulating cover has been removed, a large percentage of heat loss is straight up through the water and has very little bearing on the operation of the blower. This heat loss will occur even when the blower is off.

• The life of a blower depends on a number of factors, and each different application requires that the installer ascertain the usage requirements: That is, what are the number and size of orifices in an air channel/injector system? Or, if the blower is being used to supercharge the existing water jets, how many jets are there? What is the distance from blower to spa? How deep is the water? Is the spa for commercial or residential use?

When a blower is asked to do more than is physically possible based on motor size, the unit will indeed fail in a short period of time. (Noise levels also increase when the blower is asked to perform a task that is beyond its capability.)

If a spa is going to operate continuously, it is critical to provide a blower that is *built* for the purpose. Spas at most health spas, condominiums and hotels operate continuously. This is why the average life expectancy of most commercial blower motors is 25,000 hours, per manufacturers' specifications, while residential blowers have an average life expectancy of 1,000 hours when properly sized. You can see the necessity of providing the appropriate equipment based upon usage!

Most units are also thermally protected to guard against overheating caused by back pressure and can operate indefinitely when properly sized, whether commercial *or* residential.

Many applications, however, simply do not follow manufacturer guidelines.

When installing a blower, it is critical that you provide exhaust that equates to the same amount of square inches as the intake. (A typical residential blower has an intake with a diameter of 1.75 inches.) By using simple arithmetic, you can calculate the number of holes needed to supply adequate exhaust for the blower, obviously decreasing the number of holes as they increase in size.

There's an excellent test to ensure a blower is sized properly on an existing job: Take the blower off the pipe while operating and take an amperage reading. Return the blower to pipe and, while operating, take a second reading.

If the difference between the two readings is more than half an amp, the blower is not sized properly. (The blower noise level will also increase during the second half of this test if it is sized improperly.)

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