

THE Radon Reporter



Autumn 2016

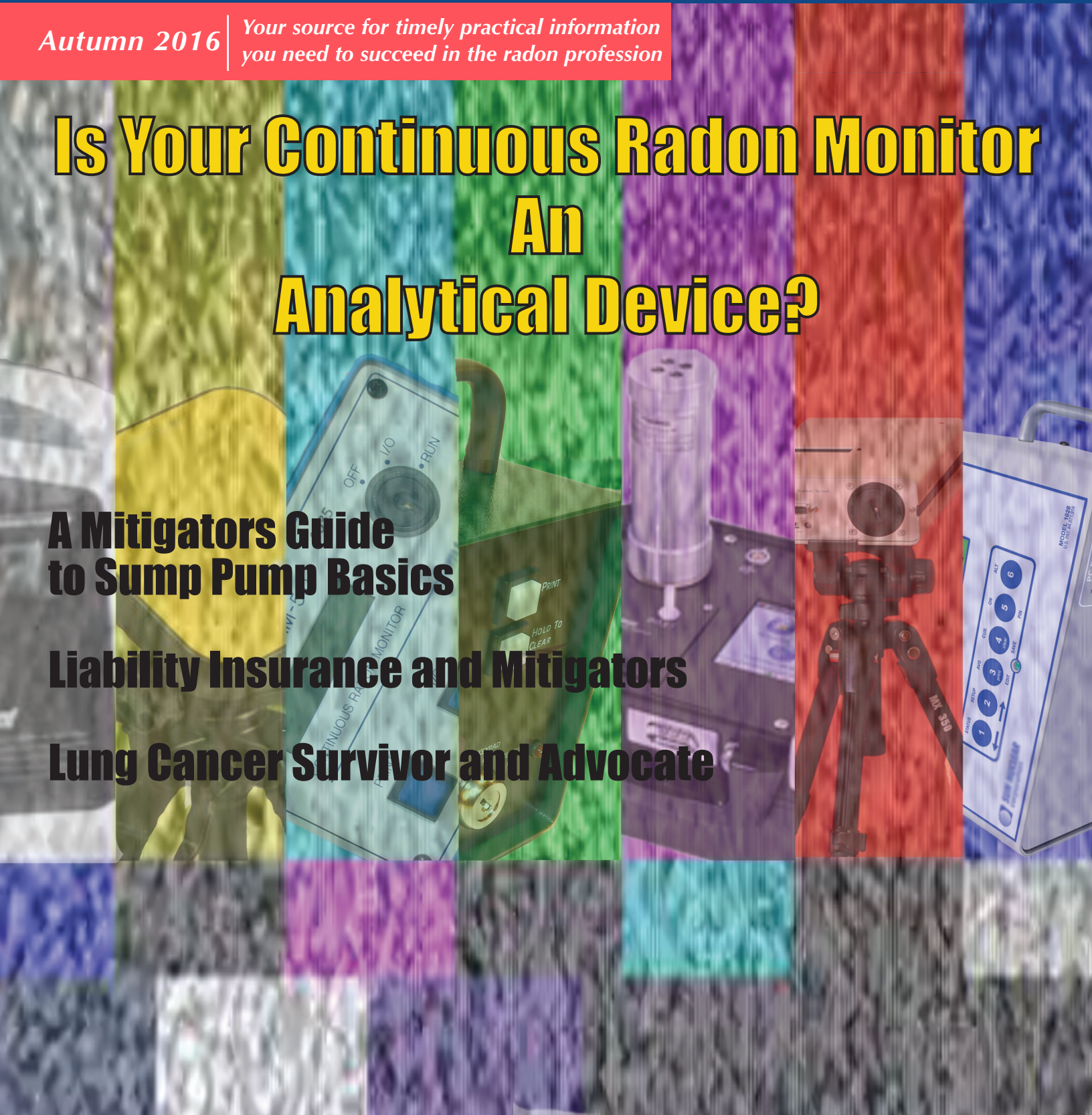
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Is Your Continuous Radon Monitor An Analytical Device?

**A Mitigators Guide
to Sump Pump Basics**

Liability Insurance and Mitigators

Lung Cancer Survivor and Advocate



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2016 AARST National Board of Directors

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NRPP Mitigation professionals are now required to list all the devices they use. This is a primer clearly defining the devices used by Standard and Analytical professionals and their responsibilities to their equipment while maintaining their certification properly. –Peter Hendrick page 8

Liability Insurance and Mitigators

Understanding your insurance coverage in conjunction with the type of mitigation work you do is integral to protecting your business and personal assets. – Steve Riggs page 15

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Meet Jacquelyn Nixon, Pennsylvania Citizens for Radioactive Radon Reduction (CRRR) Advocate and Lung Cancer Survivor, tells of her path in discovering her lung cancer and that her home was tested at 3 pCi/L. The message is loud and clear radon exposure is unsafe at any level. - Jacquelyn E. Nixon page 14

Cover Art: Images in graphic are used with permission, and chosen based on the specific manufacturer being an advertiser with AARST Media and/or exhibitor at the International Radon Symposium™ in recent years. l-r: RTCA MR-2000-P Continuous Radon Monitor, Corentium Pro, femto-Tech CRM-510M, RadonAway RadStar RS-300 Continuous Radon Monitor, Pylon 300 Lucas Cell, Rad Elec, Inc Radon Scout Radon CRM, Sun Nuclear 1028 Continuous Radon Monitor

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AARST, the American Association of Radon Scientists & Technologists, is a nonprofit, professional organization dedicated to the highest standard of excellence and ethical performance of radon measurement, mitigation, and transfer of information for the benefit of members, consumers, and the public at large. AARST’s leadership is democratically elected by the members.

AARST-NRPP represents your voice as we meet the wide range of challenges facing radon professionals and the community. Your membership and participation provides you a voice in the changes to come, and allows you to gain updated information, discover new techniques, learn about new problems before they occur, and hone your professional skills.

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Letter from the President

AARST President’s Column

By Phil Jenkins, President, AARST

As I assume the position of President of AARST, I realize how multifaceted that AARST has become, and although I have been involved with radon for most of the past forty years, I also realize that my expertise primarily relates to radon devices and the quality of radon measurements. Luckily, there are a number of experienced and dedicated people on the AARST Staff and Board and throughout the membership on whom I can rely for help in areas where my expertise is lacking. And I realize how difficult it will be to fill the shoes of our previous president, Shawn Price, who has done an incredible job over the past four years. Thank you, Shawn, for all of your hard work.

At our symposium in September, it was encouraging to see a number of younger faces in the crowd; however, it is clear from all the gray hair that a large percentage of our members are “more experienced.” We are losing a number of our leaders to retirement and even death. So I ask you, bring young people into the business, encourage them to join AARST and become active in the various programs of AARST. And if you are asked to participate in a committee, or some other volunteer service for AARST, give it serious consideration. A strong Association is good for your business, but more importantly is crucial for the accomplishment of our ultimate mission which is to reduce radon-induced lung cancer. We need to ensure the future of the Association with younger radon professionals.

A project that is a priority of mine in 2017 is the establishment of a formal program of radon measurement intercomparisons among the reference laboratories within the US and internationally. A program of formal international intercomparisons is also a priority of the Coalition of International Radon Associations (COIRA) of which AARST is a member. Radon measurements are the bases for many decisions regarding mitigation, radon mapping, risk, allocation of funds, etc., and it is crucial that our measurements be accurate. Intercomparisons among reference labs are essential for assuring that 4 pCi/L, for example, is the same at one lab, or in one country, as it is for all the others. And ultimately, the measurements relate to national references that also must agree. We will be working with personnel at the EPA laboratory in Montgomery, Alabama as they reestablish the national radon reference for the US. Also, with the help of some funding from EPA, we are working on procedures for radon measurement intercomparisons among reference labs in the US using a “transfer standard.” And we have met with the leadership of COIRA to discuss plans for a similar method of intercomparisons throughout Europe, Canada and the US.

“A strong Association is good for your business, but more importantly is crucial for the accomplishment of our ultimate mission which is to reduce radon-induced lung cancer.”

I am a Certified Health Physicist, which means that I’m a specialist in radiation protection, the prevention of unnecessary radiation exposure. People are being exposed unnecessarily to elevated concentrations of radon in their homes or at work, and often they are totally unaware of the exposure or even what radon is. Our mission as radon professionals is several fold: increase radon awareness, conduct measurements in a professional manner following national standards or State regulations, conduct mitigations likewise and most importantly reduce unnecessary exposure to radon thereby reducing the occurrence of lung cancer due to radon. ■



Phil Jenkins, President, AARST

INNOVATION.



Nuts and Bolts

A Mitigators Guide to Sump Pump Basics

-By David Daniels, AARST Communications Chair
Radon Specialists of WI, Inc.

Ever get that call in the middle of the night when there was a big rain storm? Ever lose sleep when you knew it was going to be raining hard at night or over a weekend? I sure have. If you live in an area where there are sump pits and pumps installed in basements you know that sinking feeling when the phone starts to ring. I don't lose sleep anymore and really don't worry when it starts to rain.

Not all sump pumps are created equal. Because we install pumps at a lot of our installs I have had to become efficient when it comes to sump pumps. I have tried many brands over the years. I have spent a lot of time researching them with discussions from local plumbers and on the internet. One thing I discovered is that we install more pumps than all the plumbers around here, so asking them for advice didn't really pay off.

A quick side note regarding sump pumps and pits that is in the standards. If a sump pit/drain tile is drafting with a sub slab system or the pit is the suction point the pit has to be air tight. I have seen a few systems in our area where the pit was actually the suction point and the installing company tried sealing the pit with upright/pedestal sump pumps present. That is wrong. If the pit needs to be sealed it has to be air tight, period. A submersible pump (motor and float below the lid) needs to be installed.

My opinion on brands comes from our experience and research we have done. First, I will not install a pump from off the shelf at Menards, Lowes or Home Depot. Unless, there is the condition where the owner lets me know that the pit has never had a drop of water in it. Then, the cheapest piece of plastic pump can be installed to save them money. Only because it will never be called on to perform dewatering.

Here are the brands we have tried with success over the years: Little Giant, Zoeller, and Pro- Series. We currently use the Pro Series pumps and have for about 5 years now. The first thing I look for in a pump is the float mechanism. A float on a cord or a rope I call it, is the last type of pump float mechanism I would install. I can't tell you how many homes we have gone into where the customer had water in the basement because their pump was a float on a rope. Even when the float is set in the center of the pit that float will go where it wants to. And when water flows into the pit from the drain tile it can push that float towards the side of the pit causing it to get stuck. And they get hung up really easy. We always advise customers that if their pit is active and they have this type of float to get it changed out. It's just an accident waiting to happen.

The only type of float mechanism that we install is the

vertical float or the diaphragm. The Little Giant pumps that we used had a diaphragm, which was great. You never had to worry about the float getting stuck or how the pump was placed in the pit regarding the float. It was a quick change out. Also, a small tube actually travels from the diaphragm up the electrical cord to the end of the plug. It is there so you can suck on it to activate the pump or blow in it if something gets stuck in the diaphragm. So, no need to add water to the pit or unseal the lid to activate the pump. A few times pumps would not shut off. We would just blow into the tube and it normally forced the item out and voila, the pump would work correctly again. We changed to the Pro Series pumps and here is why.

First, their pumps use 1/3 the energy of most other pumps. What a great sales tool to let a customer know that this sump pump will save them money. Second, the pumps have a high pumping capacity. Their lower end pumps have a 50 gallon per minute capacity at 10 feet of lift on a 1/3 horsepower pump. Wow, that is really good. Whenever you look at a pump box, make sure you check the gpm rating at 10 ft. of lift. They will put big numbers for pumping, but it is normally at 0 ft. The 10 ft. number is the one you want to go by. Third, their controllers are fantastic. The low end pump (low for them, it is still high quality) has a vertical float system and it works great. Then they have three other types of controllers. The main one we use is the DFC2 controller. It has a double float system, in a cage connected to an alarm system. You can also place this float system at the best possible height for each particular pit. If the pump floats go up and don't come down (water level not going down) after 10 seconds an alarm will sound. If power goes out in the house an alarm will sound. Basically, if anything is wrong with the pump functioning properly an alarm will go off. Also, the pumps have a good price. Since we have been installing the Pro Series pumps we have had virtually no issues. And no, I am not getting any kickbacks from them. Ha-ha.

The only thing that must be done with the Pro Series pumps that were never a big issue with the other pumps we have used is that if a check valve is installed a bleeder hole must be drilled into the ejector pipe above the male adapter. Otherwise an air lock is very likely to happen. Most pump manufacturers recommend this with their instructions. On the Pro Series it needs to be done.

So, you walk into a home and the pump piping looks a mess, it's all cobbled together. We inform them that the pump piping needs to be in good shape if we are to seal the pit and especially if we are going to need to install a new pump. Don't let the home owner tell you otherwise. If



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Nuts and Bolts

Continued from page 5

their pump is active it is a huge liability for you. Don't take the chance on faulty piping. Re-pip it for a fair price and use 1 1/2" if possible. Large capacity pumps say 80 gpm will need a 2" piping. Anchor the piping down with proper clamps so to cut down on vibration when the pump is operating. If the customers piping is in good order and you can connect to it using your normal connections or reduce up or down with one fitting you should be ok. I just don't recommend trying to make something work, cobbling it together to make it work. It is better to cut out what is there and start from scratch.

How to evaluate what is needed. This can be very easy. Look at what is there. If you can look up the brand name and what horse power it is you can look up its capacity. If the owner says it keeps up fine then a pump with similar or better capacity will do. If it barely keeps up then suggest one that can pump more gpm.

Materials to use should always be schedule 40 PVC, pressure rated pipe, typically 1 1/2". Sometimes on larger pumps a 2" pipe is required. Use galvanized or stainless steel clamps to anchor the piping. We normally don't use J-hooks in sump pump piping. It does not keep it rigid enough. The only check valves I will use are the Zoeller green body check valves with the 1 1/2" to 1 1/4" rubber couplers. They are a solid body check valve with no seams, so less likely to spring a leak. The rubber couplers allow you to attach to an existing 1 1/2" or 1 1/4" pipe. If the owners pipe is 1" in size we cut it out and re-pipe to 1

1/2", even if it looks good. You would lose too much capacity on a 1" pipe.

What do we do with all those pedestal sump pumps that we cut out? We leave them by the floor drain to drain out. We then tell the homeowner to take it to their new home for a backup or to leave it for a backup for the new owners. There is nothing wrong with a pedestal pump; you just can't seal the pit properly with that type. If it is an older pump and probably should not be used as a backup then we will take it and recycle it. Keep in mind, even a new pump out of the box can fail at any given moment. Always have a backup, especially if the basement is finished off.

Customers that have finished basements are always advised to have a backup system. A battery backup system, which Pro Series has or a backup generator would be great. Most insurance companies for home owners require a backup system if the basement is finished off. But most home owners are not aware of that. If their policy requires that, and they don't have one and they get water in their basement the insurance company may not pay out a claim.

My bottom line is that once you seal a pit, you just took on a huge liability. And if you are replacing a sump pump it's even a bigger liability. Don't skimp on quality. And don't attach to cobbled up piping. Always make sure the pump, new or not, in the pit functions before you seal it also. Protect yourself and your business. ■

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Nuts and Bolts

Is Your Continuous Radon Monitor An Analytical Device?

-By Peter Hendrick

This is a big question. One that is tied to the question of competency and proficiency and the integrity of all radon measurement providers who make a living in the United States measuring radioactivity accurately.

Why this question came up. AARST-NRPP is requiring that all professionals list the devices they are using – and we are finding that many mistakenly believe that the CRM they use is a passive device.

In the United States, our entire system of measurement and our ability to conduct the business of radon risk reduction accurately and safely relies on the fact that we get this right and that we all understand the devices we use and how they must be maintained. There is no room for error.

Whether radon practitioners are state licensed professionals or are NRPP or NRSB certified professionals, all radon professionals rely on proficiency requirements originally formulated by USA EPA in protocols developed in the early

“Like a traveler, where consumers want an airplane’s navigation and altitude equipment to be right on target (especially landing in bad weather.), so too, radon consumers need to know that their professionals measure radon gas accurately.

This is a public health and safety issue.”

90s. (These are now AARST-ANSI American National Radon Standards and, in some cases, state regulations.)

These requirements generally involve entry level courses and national exams, plus, for radon measurement professionals, they must use measurement devices on lists maintained by NRPP or NRSB.

The radon measurement devices on the NRPP and NRSB lists that are on the market today, whether they are passive charcoal canisters or alpha tracks or sophisticated electronic devices, have been evaluated either originally by EPA or, since 2000, by the National Radon Proficiency Program (NRPP) and/or the National Radon Safety Board (NRSB.)

Radon Measurement Professionals are forbidden to use a non-listed radon measurement device to report results to a consumer, and they must maintain Quality Assurance Quality Control (QA/QC) protocols and records, and have their equipment

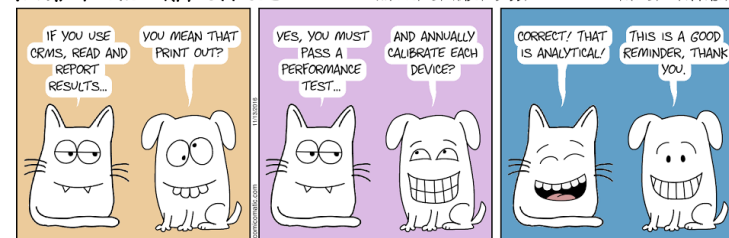
calibrated annually, if it is a continuous radon monitor (CRM) or any device that is electronic and/or requires calibration. In addition, if they are reading and reporting the results of their devices they must have performed and passed a radon device performance test on the analytical equipment.

What is a Performance Test?

A DAY IN THE NRPP OFFICES

WRITTEN BY RADON BUDDY

ART BY NINA PALEY



Performance tests are an often-used tool in all types of certification programs for all types of professionals. For radon measurement devices that are analytical, the operator must send the device to a special (independent) laboratory (known as a radon performance chamber or secondary chamber) to be exposed to a known amount of radon gas. The device is sent back to the professional who must read the results within an acceptance range of accuracy and report that back to the chamber. If they do so successfully, the chamber issues a report that the applicant passed the performance test. (In the early days, US EPA required that the professional show up at the chamber and do the exercise in person, a process that required travel and at least two days to complete.)

The AARST National Radon Proficiency Program (NRPP) Requirements:

NRPP professionals who place and retrieve devices (in a passive manner, generally charcoal and alpha tracks, but also some CRMS and electrets) and send these devices to a laboratory or an analytical professional to do the actual analysis and report radon results are known as “Standard Services Provider.”

- They do not engage in the analysis and reporting out of the results.
- Some CRM’s are known as blind monitors. The CRM is connected via modem to a central lab and the report is done at the laboratory. Therefore, the Standard Services Provider is not doing any analysis.

NRPP professionals who use Continuous Radon Monitors that they themselves read and report results are known as Analytical Service Providers.

- Individuals in the Analytical category have actually gone through the additional process in their certification



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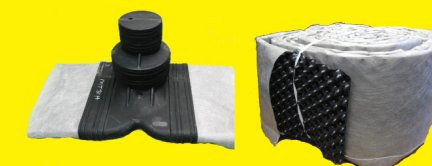
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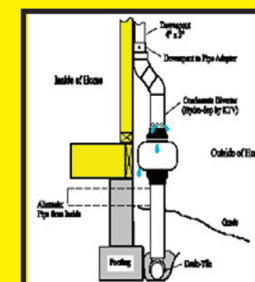
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Nuts and Bolts

process; they have done an initial performance test with the equipment and have proven their proficiency with the device.

- NRPP requires that in addition to annual calibration that a performance test must be completed every two years for a renewal.

These processes are in place to guarantee that 1) the device is calibrated and 2) the operator knows how to use the device correctly and can prove it.

A big question. A wrong answer. (Under Current NRPP Policy):

The most common misunderstanding by professionals is that the CRM device they are using is a standard device. “I’m a standard provider, I don’t do analysis I just place and retrieve and then I just push a button and it prints out the results.”

Unfortunately, if the professional is reading and reporting out the results of a CRM, that’s analysis and it’s an Analytical device and, under existing policy (which is currently being reviewed by the NRPP’s Policy Board), it requires the additional steps of a performance test.

Can a CRM be used as a Passive Device by a Standard Provider? Yes, but only if there is someone in your company who is rated as an Analytical provider.

To assist NRPP professionals in these categories, Credentialing Supervisor Janna Sinclair has updated and produced a listing of devices that better defines which CRMs are analytical and which can be used by Standard providers because they are *blind* and which are *blind capable*.

A *blind capable CRM* device has the ability to store and retain the information securely for later reading and reporting out by an Analytical provider. NRPP has a process for small companies that use this technique to allow them to register as a lab, with one individual becoming the responsible party (an Analytical provider.)

Examples: FemtoTech and Radalink have blind monitors available for professionals and these only require that the professional have a Standard provider certification. Some electrets can be deemed “passive” while others are analytical; it depends on who is doing the reading. For example, the Sun Nuclear 1027, 1026 and 1028 and RadStar RS300 are generally analytical devices, but they are blind capable and so could be placed by a Standard provider but results must be reported out by an Analytical provider.

The approved device list can be found at AARST-NRPP website.

“I just push a button, it’s not that hard. Why do I need a performance test?”

Because, people do fail the test and we are measuring radioactivity that kills even at levels between 2 and 4 pCi/L.


However, the question remains as to whether all CRMs fit the

criteria for needing performance testing.

The NRPP Policy Board (PAB) is gearing up for ISO 17024 certification, and in doing so the program will be reviewing the requirements for all certification programs. This is known as a Jobs Tasks Skills analysis, and the PAB will be assigning experts to determine the criteria that are important out on the street. This will include recommendations for how radon measurement devices are used and whether they all require performance tests and at what frequency. Under the terms for ISO compliance, which we are striving for, this type of review will now occur every five years.

Until then, report your devices accurately and be prepared to do a performance test upon renewal, or go back to using passive devices. Staff is more than willing to help and will be sending out more frequent reminders and notices on this subject. ■

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2016 International Radon Symposium: San Diego

-By Nicole Chazaud

The end of September in San Diego California is normally very warm and is always sunny. And Paradise Point was perfect location with beaches, cabanas, pools and restaurants on Mission Bay.

Except AARST professionals arrived to find that the weather



Chapter Leaders Meet & Greet dinner-style

was a bit soggy. And well, it rained and was a bit foggy for almost the entire four days of our symposium. But that did not deter anyone from participating and enjoying the full days and evening events.

Saturday, onsite AARST staff and volunteers set up the Symposium office and readied themselves for the onslaught of almost three hundred attendees arriving to check-in the next day. Early arrivals got to share in the Chapter Leaders Meet & Greet dinner-style. Where almost 30 members representing 8 of our 10 chapters broke bread and shared news about their chapter.

Symposium pre-program events began on Sunday with AARST-hosted continuing education courses and AARST board and committee meetings. Six classes were available for C.E. credits covering everything from advance mitigation techniques, to quality assurance and small business practices. At the same time, the exhibit hall was being set up, the exhibitors did an amazing job getting their booths set in under five hours, being poised and ready for the Opening Reception at six pm. It was a sold out Exhibit hall.

Nuts and Bolts

Continued from page 11

This year, we offered vendors the option to participate in virtual booth interviews. Our volunteer AV crew went from booth to booth doing candid interviews asking about new items being showcased. These interviews can be viewed on the <http://aarst-nrpp.com/wp/exhibit-hall/page>.

At the Exhibit Hall's and Symposium's Opening Reception, Executive Director Peter Hendrick and incoming and outgoing Presidents Phil Jenkins and Shawn Price welcomed exhibitors and attendees alike, the hall was packed, almost all attendees had made it in for the reception!



Opening Reception



Dr. Lane Price, M.D.

Monday programming started off with an inspirational speech by keynote speaker, Dr. Lane Price, M.D. who shared her experiences in the field of oncology, working with lung cancer patients who were (primarily) non-smokers; coming to terms with radon induced lung cancer. Attendees talked about her twenty minute talk throughout the entire Symposium. You can view and share her Keynote on the AARST Radon Professionals Video Channel on Youtube.

In AARST President Shawn Price's welcome, he dedicated this year's symposium to radon industry's technical pioneer, Arthur Scott who passed away earlier in the summer. (See Page 19)

Monday, is traditionally split with our State partners, CRCPD with joint public affairs sessions which were full of policy updates from many state and federal officials as well as AARST leaders. For the second year AARST added concurrent Tools

session (Track II) for the afternoon hours. Monday sessions were again available for NRPP Category I, C.E. included in the price of the symposium.

Monday's Luncheon was attended by everyone. CRCPD recognized Angela Tin with the Radon Heroes award, and AARST President Shawn Price recognized Janice Nolen, Josh Kerber, and Peter Hendrick. Monday evening saw an impromptu and first networking hour with Women (Exhibitors) in Radon. This was so well received by all who had attended that AARST is looking into making this an official part of the program in future years. We are also looking into adding other networking opportunities and Meet & Greets to the Symposium program for 2017.

Monday was also the annual Spouses Day Out, which was a Heartland Chapter hosted event to benefit CanSAR, CRRR, and the AARST Foundation. About 25 "significant others" hopped on and off the San Diego Downtown Trolley Tour, shopped and had lunch.



Spouses Day Out

Tuesday programming was non-stop as well. Both tracks, Science Abstracts and Technical Tools were very well attended; presenters smooth and concise. Track II continued in its AM/PM thematic structure – new this year. Tuesday's Luncheon and the annual business meeting for the association, was also well attended (everyone is always invited, AARST member or not). Speakers challenged attendees to contribute to the newly formed AARST PAC (Read about the AARST Policy



Angela Tin receives award from Patrick Daniels

Action Committee on Page 16), Price recognized more radon leaders: Wally Dorsey, Lisa Alexander, John Seidel, Calvin Murphy, Tony McDonald and AARST Treasurer David Kapturowski who was recognized for his contributions to budgeting and fiduciary due diligence. The 2016 Board election results were announced, and our new President, Phil Jenkins, officially stepped into his role.



David Metzger

While the Night Out was not a rain out it was rain delayed! Attendees arrived at Petco Park to cheer on the San Diego Padres (or the Arizona Diamond Backs depending), with high spirits and hardy appetites. The event-goers were graciously attended to by Co-symposium Chair, Dr. Darioush Ghahremani, who made sure all arrived safely, got a baseball hat (for the rain!), found the food and beverage stations, and assisted in wiping down the chairs.



Night Out at Petco Park

Wednesday saw a solid morning of programming with attendance high in both tracks right through to Noon. Then, just as the sun was breaking through the clouds, it was over. And within a few hours, exhibitors had folded and packed their tents and radon professionals were pulling out of town, except for a few who went to the beach.

Next stop: 31st International Radon Symposium, New Orleans – NOLA in 2017. October 1 – 4, 2017. ■

Nuts and Bolts



Exhibit Hall

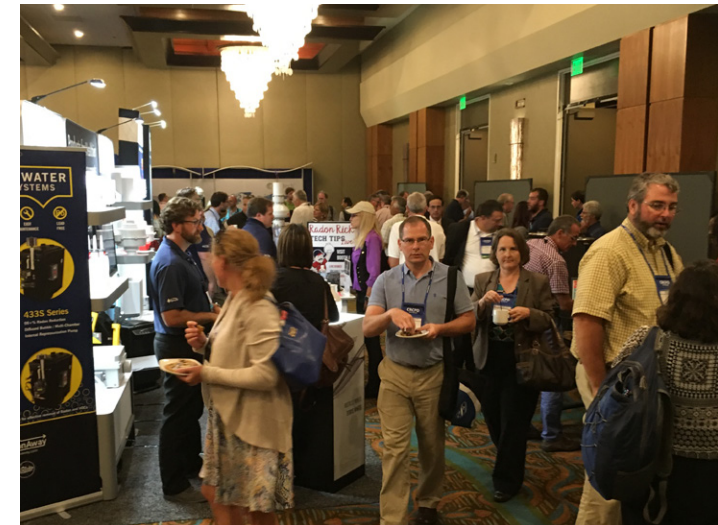


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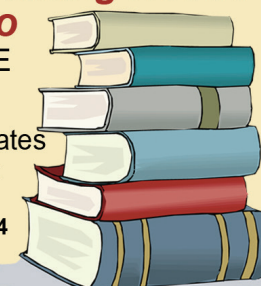
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Pennsylvania Citizens for Radioactive Radon Reduction (CRRR) Advocate and Lung Cancer Survivor

-By Jacquelyn E. Nixon

“Never let the things that matter most be at the mercy of things that matter least.”

Symposium attendees also had the chance to meet the vivacious lung cancer survivor and advocate Jacquelyn E. Nixon. She attended with Gloria Linnertz of Citizens for Radioactive Radon Reduction, and was presented with the Advocacy Recognition and Appreciation Award, by CRRR’s scientific advisor, Dan Steck.



Jacquelyn Nixon

In answer to her question, I said, “No. I feel great. Except, well, I sing by ear and I noticed that my voice sometimes sounds a little bit edgy and I can roll notes, but it seems now I have to take a quick short breath to end the run.” I said that it was probably because I had been sitting and working on the computer too much in the last year and I probably just need to exercise my diaphragm more, that’s all. Singing and music is my passion. I got my voice when I was eight years old. I’ve been in every church choir. I just love it!

My doctor asked me as she listened to my chest, if I was coughing or had any chest pains, to which I said, “Nothing.”

At that point, we were both going to blow it off thinking it was nothing. My doctor had her hand on the door, ready to leave, but then said, “Well, since you get this free maintenance, let’s just order a chest x-ray.” Two days later, I got a call saying they found a tumor approximately 1 inch in diameter in my lung. I had the biopsy which proved to be lung cancer - adenocarcinoma.

I was blown away! Of course I went through all of the mental pain everyone else does and after talking with my doctor again, she said, “Do you realize that we both almost walked out of that door? And, if you hadn’t gotten shingles, we probably never would have found this for another year or so?”

Well, a month later, I was operated on and they removed the upper left lobe. I lost 1/5 of my lung capacity. The surgery went smoothly and the same day, I tried to sing and was still able to. I was released from the hospital in 3 days and at which point I am 100% cancer free. No chemo, radiation or medication. The doctor said just walk every day.

I went back to church and the choir after 2 months. The practice helped to build my lung capacity, which I work on every day.

After 7 months, I returned to my normal duties, through a conversation with a friend, I mentioned that everyone is puzzled about how I got lung cancer. He mentioned that radon was the largest cause of lung cancer in non-smokers. I didn’t know anything about radon, so I did my homework and read about it. I was shocked at the study results regarding radon emissions and the number of deaths due to exposure. I had my building tested out of the money I call my “cancer money” the insurance company gave me for loss of income.. I lived in this building for 38 years. The area that I live in is built on top of old coal mines in Pennsylvania. I asked two neighbors in 2 ground condos to test along with my 3rd floor condo. The ground condos came out to 7 pCi/L on the right and 18 pCi/L on the left. My condo came out to 3 pCi/L. The EPA has established that any home which has a radon reading of above 4 pCi/L of radon needs to undergo radon removal. However, even levels of 2 pCi/L of radon is still hundreds of times more harmful to us than the carcinogens allowed by the FDA in our food and water. Our mitigation system was put on our building which brought the condo with 18 pCi/L down to 1 pCi/L.

There are no laws in the State of Pennsylvania that say you must do a radon test as a seller, buyer or owner. I found that many people don’t know about it and how it can affect you. As a result of my reading and talking with various people and organizations that have been so helpful in providing information, I have decided to become a Pennsylvania Radioactive Radon Reduction Awareness advocate. More education needs to happen at the local levels and the information must get into the hands of more people.

I can’t say enough about “early detection”. Getting that chest x-ray on a regular basis is worth it! Getting that radon test is also worth it!

Maybe I can help someone with early detection by encouraging them to test their homes now. I was given a second chance. For me, this is my way of paying it forward. ■

photo by Matt Polk Photography, Carnegie, PA

Liability Insurance and Contractors

-By Steve Riggs, Accredited Advisor of Insurance
Commercial & Personal Lines, Nelson Insurance Agency, Inc.

Many new contractors in the world of radon mitigation have been involved in some other form of contracting in their construction or remodeling careers. It is as varied as concrete construction, duct work, or plumbing. Because of that previous contracting experience, a new radon contractor can bring a mindset that might not be conducive to this form of contracting: environmental.

Environmental contracting to standard contracting is like the difference in firefighting a 15 story structure and 10,000 acre wildfire. It’s all fire but there is different training, equipment, and expertise involved. It’s so different that the insurance company’s liability policy for contractors excludes any environmental work you perform. Insurance agents who primarily handle personal lines or small contractors might not even know there is an exclusion for environmental or pollution conditions. A standard liability policy also excludes professional liability involving damage or injury you caused due to decisions you made about your project.

These basic policies in the world of contracting are not sufficient for a radon tester or mitigator.

One could lose all their assets in a lawsuit or go bankrupt with legal expenses. Just the allegation is enough to cause great financial loss.

We’ve heard some mitigators say they are not in the environmental business. However, radon is a Class I human carcinogen according to the IARC (International Agency for Research on Cancer) and the World Health Organization. All of the world can’t be wrong about that. Some policymakers are even considering the requirement of a hazardous material plaque with the radiation symbol be used by radon contractors. They can do that on a voluntary basis now.

Liability insurance protects yours assets and operation if you cause injury or property damage to others. What if the house or building could not be sold because it was alleged your high reading caused the loss of sale of the \$3,000,000 building? Of course, you know it wasn’t a bad reading but the reading a week later by your competitor after the weather had changed had a lower reading that would not have stopped the sale? How will your policy respond to environmental testing? A regular policy purchased as a standard contractor will not cover or even defend you.

Radon mitigation is clearly environmental contracting and a comprehensive liability insurance policy is needed to cover all the radon related work. This is why AARST early on had an insurance plan for this complex set of circumstances and to provide you an option tailor made for your environmental work. ■

Are you currently NRPP Certified?



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You may upgrade your membership level at any time just contact membership@aarst.org



Understanding the differences of liability coverages and where your business fits in

1. **General Liability:** protects yours assets and operation if you cause injury or property damage to others

2. **Professional Liability:** is excluded in a standard general liability policy, this coverage must be added to the package. It insures the misdeeds or errors and omissions made in designing a system. The public has a growth in expectations about your decisions which are made in relation to their health and building sickness. If you make a faulty diagnosis or wrong decision this coverage could come into play.

3. **Pollution Liability:** is excluded in a standard general liability policy. Any claim related to a pollutant or contamination. Radon gas is radioactive. If you don’t adequately remove or vent the pollutant itself because you take shortcuts, a claim could result. For example, an extraction hole that is too small a diameter or a vent pipe not above the roof line could result in the charge the pollutant (radon) wasn’t vented properly. A standard policy won’t even respond or defend you in court. You would need to hire your own environmental lawyer for defense.

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The Member Toolkit and Standards FLIPBOOKS



AARST staffers want to make sure you are accessing your Members Area. Many members have yet to activate their email in the new website and while the new website is almost one year old, we want to make sure every member (this includes NRPP Certified Professionals) takes advantage of their FULL BENEFITS, and access to the AARST-ANSI Standards is a big one.

Flipbooks are digital magazines, only viewable in the Members Area. Once logged in you will see the Standards Library on the right side of the page. Each Standard has an active link, which when clicked on, opens the digital viewable-only standard. Have access to standards on your mobile devices 24/7. Log in today.

Prepare for NRAM

January is National Radon Action Month, when AARST invites all members to use your Toolkits! Yes there are great Tools in the Members Area (left side of your Page called Toolkit) where you will find all kinds of materials for downloading and customization to get the Radon Message out. There is even a one hour webinar by Bruce Snead from last January, explaining how to do press releases and proclamations.

So many professionals have told us they are not comfortable speaking in public. We have created templates and how-tos so you don't have to reinvent the wheel. *This is why you will love the Toolkit.*

Use our Social Media portals to ask questions, get tips, and free downloads. Look for more NRAM tips in RN Biz beginning in December.

Women In Radon

A couple of years ago we asked for input from membership to nominate women in the radon industry as a way of acknowledging the many women who work(ed) diligently and passionately in our industry. This was to be a feature for a Radon Reporter, which because of the largess of it's scope never really came to fruition. With the amount of nominations we received it was so obvious our Member's desire to make a shout out.

This year we took a tiny step at the Symposium to invite Ladies from our Exhibitors to sit for an hour and share stories, but mostly connect. Based on the extreme excitement of this small gathering, we walked away with a promise to each other and



Women In Radon

from AARST National: to grow this network. We promise that Symposium programming will have a networking opportunity at future symposiums being inclusive to all women in attendance. AARST National will also facilitate this networking opportunity, beginning with a LinkedIn Group. Please look for us there as we formulate the goals and helpful conversations which might be engaged upon.

AARST Radon PAC (Political Action Committee)

A PAC (political action committee) is an entity established under law that allows groups of individuals to pool funds to support the election of candidates for political office and for other election-related purposes. This pooling mechanism allows people with common interests – such as members of a trade association – to concentrate and magnify their impact in supporting candidates for office.

AARST has established AARST Radon PAC for the benefit of the membership, to help elect political candidates who understand and appreciate the need for federal policies to reduce risk of radon-induced lung cancer. Having a PAC elevates AARST's status as a policy advocate in Washington DC. It allows AARST to contribute funds to the campaigns of candidates whose policies and interests are aligned with AARST and its membership with respect to radon testing and mitigation. The PAC gives AARST a political capability to complement its congressional and federal agency capabilities.

Member contributions to the PAC are entirely voluntary and are not a condition of membership. However, only members of AARST may contribute to/participate in the AARST Radon PAC. It is a privilege of membership in AARST. AARST invites its members to participate, but there is no consequence to not participating.

For your downloadable form, please visit the Standards and Policy tabbed Section of our website: <http://aarst-nrpp.com/wp/aarst-radon-pac/>

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Philanthropy at the Symposium

Another activity at the Symposium deserves mentioning.

Philanthropy (fəˈlɑnTHrəpē/) is described as the desire to promote the welfare of others, expressed especially by the generous donation of money to good causes. Syn.: benevolence, generosity, humanitarianism, public-spirited.

AARST’s mission statement is printed in each Radon Reporter™ on the Masthead page, on the website and in the Code of Ethics members sign when joining. It states: *AARST-NRPP is a non-profit, professional organization of members who are dedicated to the highest standard of excellence and ethical performance of radon measurement, radon mitigation and transfer of radon information for the benefit of members, consumers and the public at large.*

Furthermore our Code of Ethics goes on to state: *These principles are intended to aid members of the American Association of Radon Scientists and Technologists (AARST), individually and collectively, in maintaining a professional level of ethical conduct. It is a guideline for professional responsibility by which they may determine the propriety of their conduct in relationships with colleagues, with members of other professions, and with the public.*

AARST has relationships with a number of non-profits whose primary function are to support advocacy and radon awareness education. Each of these groups hold certain esteem in our small industry as well as different mission statements and end goals.

CanSAR and CRRR play an important role in raising radon awareness in general and advocacy both on a personal level in trying to direct families to proper resources for radon prevention and on a larger scale in advocacy and education of our law and policy makers at all levels of government. The AARST Foundation is engaged in scientific, literary and social programs as they relate to radon risk reduction.

While it costs attendees hundreds if not thousands (depending on how many company members attend a symposium) it humbles us to see that while in attendance, pockets continue to open to support in a way that becomes a personal commitment to a specific activity.

This year we are very encouraged to report that well over \$15,000 in donations and pledges were made to the variety of outlets/endeavors available for people to connect to.

Actually over the past 5 or more years, many how-to Tools are shared at the symposiums, from running Relays For Life® to conducting your own PSA, to learning about how to create changes in legislation on a local scale.

The symposium is a place for great ideas to hatch, for attendees to be on the ground floor, getting the knowledge first hand, and have the opportunity to ask and share thoughts with leaders in the industry while sitting at a lunch table or grabbing breakfast or coffee during a break. ■

This year’s Take-Away Tool seems so easy.

Add a line item sum onto a work statement/contract, that says you donate \$blank dollars of each service you charge for to your charity of choice. This opens up a path for further conversation regarding radon risk reduction, and that even as a business you believe so strongly that you contribute a portion of your proceeds (profit) towards the hard work advocacy groups do to make change. Consider companies such as Newman’s Own, and many other large commercial companies who tell us a percentage of their profits to go directly to their charity of choice, and you buy those pink coffee cups, wear red, purple or yellow, save the whales, make pasta sauce, and now SAVE A LIFE from radon risk.

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The radongreen ad did not appear in the original Autumn 2016 printing due to an editorial accidental omission.

Reflections on Arthur Scott

By William J. Angell
AARST Past-president and MURC Director

I first met Arthur in the late 1980s in Dayton, OH where he was conducting research and demonstration for the U.S. Environmental Protection Agency's (EPA) Office of Research and Development (ORD) on active soil depressurization (ASD) in slab-on-grade foundations. By this point in time, Arthur had established a notable reputation in the emerging field of radon control.

It is dangerous to say someone was first in demonstrating the effectiveness of ASD for radon control but Arthur was most certainly one of the first to share that honor with others including Luc Lance in Elliot Lake, Ontario.

One of the early examples of Arthur's work was in the February 1982 Atomic Energy Control Board Final Report on Investigation and Implementation of Remedial Measures for the Radiation Reduction and Radioactive Decontamination of Elliot Lake Ontario. This report notes that in 1981, "weeping tile ventilation" (drain tile depressurization) was successfully applied for radon mitigation in a dozen homes. It was further noted that subfloor and sump ventilation (subslab and sump depressurization) was being effectively tested. It was not a surprise that Arthur was retained by EPA ORD for ASD research in the U.S. in the latter 1980s. After 2007, Arthur completed a number of guidance documents for Health Canada on radon measurement and mitigation.

On a personal level, one of my early memorable moments



was riding shot gun with Arthur on the way to the Dayton subslab mitigation research sites. Arthur drove like a rocket pilot. In more recent times, I found him to be an effective debater on questions like radon fan and ASD discharge locations. Perhaps more important was Arthur loved life with his wife on and off the dance floor. He demonstrated that radon science and joy are the true grit we all need to seek.

Thank you Arthur Scott. ■



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NRAM is coming!

Here's easy steps to get
a proclamation for Radon Awareness:

- 1 Contact your Mayor or Governor's office
- 2 Tell them you are seeking a proclamation as
part of National Radon Action Month
- 3 Email your thank you and a copy
of the Declaration Document

For templates and how-to instructions, please visit www.aarst-nrpp.com