

REAC/TS: 40 Years of Excellence in Radiation Emergency Medicine, part 2

(As published in The Oak Ridger's Historically Speaking column on November 21, 2016)

Much of the information in this Historically Speaking series comes from the presentation made to celebrate 40 years of success of the Radiation Emergency Assistance Center / Training Site program recently held at the Oak Ridge Associated Universities Pollard Technology Conference Center. Other information comes from ORAU's web site and interviews with individuals who recall the history of one of the most significant programs in Oak Ridge history.

I recently spoke with retired senior Department of Energy official, Bill Bibb, about the history of the Oak Ridge Institute for Nuclear Studies and REAC/TS. These programs were under his oversight when he was an official who served in all three of the energy related agencies the Atomic Energy Commission (1947 – 1975) and later Energy Research and Development Administration (1975 – 1977) and eventually what is now the Department of Energy (1977 – present.)

I knew Bill when he was over Defense Programs with responsibility for Y-12. But my interaction with him since his retirement has been some of the most enlightening discussions about really important history of the Nuclear Age. I hope to dwell on the history of ORINS in a future Historically Speaking column using Bill's insights and perspective on that very important element of Oak Ridge's, and especially ORAU's, history. As a start, the name of the organization was changed from ORINS to ORAU in 1966.

Bill recalled both programs with a personal fondness for them and cited many major accomplishments. While the ORINS program with its nuclear medicine and acute cancer care has been shut down since 1976, that action, according to Bill, actually led to the formation of REAC/TS.

To hear him speak of the intricacy of working within the various government offices and specific officials who held the power to either stop a major program here in Oak Ridge or to start a new one, is a unique history lesson of how things actually happened. It is not always the way events are promoted or reports published, often those intricate details are left out and known by only a few in the inner circle of operations. But having individuals in key positions who know the ropes and understand how organizational entities think and work determines the success or failure of decisions about such programs.

Bill's negotiations with high level decision makers was instrumental in establishing REACS/TS when ORINS was discontinued as a program. The new program moved into a 5,300 square foot facility in the then recently completed wing of the Oak Ridge Hospital. Training of medical and radiological safety personnel for response to radiation accidents was a key element in this unique new function.

Now to focus on the people who were responsible for the creation of this world renown program that has resulted in training much of the world to effectively deal with radiation emergencies. They are some of the most dedicated and creative people in Oak Ridge and have dedicated their careers to helping others.

The Founders of REAC/TS recognized at the 40th anniversary event were: Roger Cloutier; Jack Beck; Jim Berger and Evelyn Watson. I admire all these people and have come to know Roger Cloutier better in the past few years. He shares my intense interest in the accuracy of history and has served as a source of knowledge and confirmation about the many historical events he has actually lived through.

Roger Cloutier began working at ORINS/ORAU in 1959 as a radiation safety officer. As well as being a key founder for REAC/TS, he also identified a need for internal radiation dose estimation which would introduce a longstanding program that served in support of radiation related studies throughout the world.

Roger also became involved in ORAU's Special Training Division (established in 1948 by the Atomic Energy Commission), which provided courses to scientists and physicians in radioisotope techniques and became the director of that division in 1974. Tens of thousands of trainees have attended these specialized training programs over the years.

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It is often said of Roger that he made substantial impacts on ORAU in many ways, not the least of which was through encouraging others and giving them opportunities to grow and develop within the organization. He was also a most successful fund raiser for the various programs he helped initiate. Dr. Eric Abelquist, is quoted as saying of Roger, "It's people like Roger who have made ORAU such a great place to work."

Jack Beck began his career in health physics in 1964 as a radiation dosimetrist for ORAU. He served in various health physics-related roles at ORAU from 1965-1982, including training coordinator and section leader for both emergency response and radiation epidemiology. From 1982-1991, Beck served as a radiation safety manager for the Formally Utilized Sites Remedial Action Program project, a United States Army Corps of Engineers project to manage and cleanup environmental contamination that resulted from early United States Atomic Energy Commission activities.

Jack returned to ORAU in 1991, where he served as the director for the Radiological Safety, Assessment, and Training Program. After retiring from ORAU, Beck returned to serve as a senior health physicist on the National Institute for Occupational Safety and Health Dose Reconstruction Project.

He was named as the 2014 recipient of the Founders Award, an honor bestowed by the Health Physics Society each year to one of its members for exceptional service to the Health Physics. Jack has held many leadership roles in the Health Physics Society nationally as well as locally. He received the East Tennessee Chapter's Distinguished Service Award in 1990 and was recognized as a fellow to the Health Physics Society in 1998.

Jim Berger was among those individuals encouraged by Roger Cloutier who went on to have very successful careers. An example of his ability to see the strengths in people and give them opportunities. For 14 years, Jim was the program director of Environmental Site Assessment Program, now known as the Independent Environmental Assessment and Verification program.

He managed the program from its inception into a \$12M - \$15M per year activity with approximately 120 employees and a national reputation for excellence. He organized and directed field radiological monitoring activities to support many major decommissioning for sites across the nation. He was instrumental in establishing and managing a radiological laboratory for analysis of the entire gamut of radionuclides in environmental media.

Jim is the author of the principal guidance documents regarded by federal agencies for conducting radiological surveys in support of decommissioning. He participated as a member of DOE's "Mary Walker Environmental Assessment Teams" and "Tiger Teams" at Savannah River and Sandia and on multiple additional independent oversight committees for DOE/HQ and DOE/OR.

He was among those who worked to create REAC/TS. It was a heady time when several individuals formed a team to pull together to create what they all knew to be a critically important element in the ever-growing area of radiation effects and understanding the specific details of how to deal with accidents worldwide.

The first choice for a name for this new function was "REACTS," but unfortunately, Playboy had already obtained a copyright on that name. So, these creative people came to a remarkable simple solution. They just added a "slash" to the acronym. Problem solved!

Evelyn Watson was not able to attend the 40th anniversary event, however, she too was a significant contributor to the founding of REAC/TS. Since I began this series, Evelyn has passed away and many people attended the celebration of her life, including Roger, Jim and Jack.

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Evelyn was a long-time friend and my wife, Fanny, worked directly for her for 15 years. I have used Evelyn as an editor (she sure knows how to use a red pen!) and have always been amazed at her ability to change a few words and make statements much more precise and powerful. Anyone who knows my writing style can easily understand why she would help it by reducing the amount of words I write.

She also achieved a great deal in her 35-year career with ORINS/ORAU, beginning as a records clerk and advancing to a Scientist and retired as program director of ORAU's Radiation Internal Dose Information Center (RIDIC) in 1994. She was chosen to chair the Society of Nuclear Medicine's Committee on Medical Internal Radiation Dosimetry and in 2007 was awarded the Loevinger–Berman Award for Excellence in Medical Internal Radiation Dosimetry.

This is the only award to recognize excellence in the field of nuclear medicine, the annual award, presented by the Society of Nuclear Medicine (SNM), honors individuals who have made outstanding contributions to nuclear medicine in internal dosimetry through research and/or development, significant publication contributions, or advancement of the understanding of internal dosimetry in relation to risk and therapeutic efficacy. MIRDS standardizes methods used to assess internal radiation doses from administered radiopharmaceuticals.

The first woman to receive the award since it was established in 1999, Evelyn was recognized for her leadership role and contributions to the MIRDS Committee and to RIDIC. Her interest and major contributions are in the area of radiation dose to the fetus and pregnant female, said George Sgouros, Vice Chair of SNM's Committee of Nuclear Medicine.

From 1986 to 1998, she served on a subcommittee of the National Council on Radiation Protection and Measurements, which studied placental transfer of radionuclides. She also served on the editorial board of the Journal of Nuclear Medicine and as a consultant to the FDA Radiopharmaceutical Advisory Committee and the Nuclear Regulatory Commission.

In 2000, Evelyn received the Marshall Brucer Award for Distinguished Service to the Nuclear Medicine Community, the highest award given by SNM's Southeastern Chapter. In 1994, she was the first recipient of the Lifetime Scientific Achievement Award from the East Tennessee Chapter of the Association for Women in Science. She also received a Lifetime Achievement Award from the East Tennessee Chapter of the Health Physics Society in 1993.

So, you have now been introduced to some of the really brilliant people who have led ORAU over the years at the program director level and interfaced with funding sources. It is people like these who have sustained what Dr. William Pollard began when he set out to establish a national laboratory centered around the X-10 Graphite Reactor after the Manhattan Project.

Not only did he succeed in that initiative, he also formed the Oak Ridge Institute for Nuclear Studies which evolved into the Oak Ridge Associated Universities in 1966. In a future Historically Speaking, I want to bring you more about the history of ORINS.

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Roger Cloutier, about the time REAC/TS was getting started



Jack Beck when REAC/TS early in his career at ORAU

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Jim Berger in a laboratory at ORAU



Evelyn Watson when she was a director at ORAU