



Dear Jonathan,

Per our conversation, I would like to provide you with additional information regarding Regina Sheehan's application for designation as an ARSO by the NRC.

- Regina Sheehan has been a licensed Nuclear Medicine Technologist since June of 1996. She completed a structured twenty-seven-month training program<sup>1</sup> which included Physics, Radiation Physics, Radiopharmacy (10CFR30 100, 200, 300 uses), Instrumentation and Detection as well as Radiation Safety, Clinical Laboratory instruction inclusive to all the above topics and more. She completed more than 2200 hours of clinical training.
- Once licensed, she has worked in the field of Nuclear Medicine continuously full time for 26 years (54,080 clinical hours). She has worked as a Nuclear Medicine Technologist, in the capacity of a staff technologist, a technical director, a Supervisory technologist and currently as a Technical Manager in the department of Radiology.
- Regina has worked with a multitude of Isotopes throughout her career, participating in 300 level therapies, inclusive of Iodine 131 as high as 250mCi, Yttrium 90, Strontium 89, Samarium 153, Radium 223 as a technologist and as a part of the radiation safety team.
- Regina completes a tri-annual Hazmat training program which encompasses a review of the Department of Transportation (DOT) regulations for the packaging, shipping and receiving of radioactive materials with specific emphasis on the types and quantities of radioactive materials used in medical facilities.
- Regina has been a member of our Radiation Safety committee for 9 years while employed at Griffin Health and has been training under my direction, gaining experience as an ASRO.
- Regina maintains active status with the NMTCB as a certified nuclear medicine Technologist and completes 12 continuing education credits per year.
- In 2021, Regina completed the Columbia Mailman School of Public Health, Radiation Safety Officer (RSO) Training. This 40-hour training covered the topics of radiation safety and radioisotopes, human health effects of ionizing radiation exposure, Radiation dosimetry and instrumentation, Radiation protection, Safe handling and disposal of radioisotopes, Inventory control, Record keeping and regulatory requirements, transportation of radioactive materials, hazard and risk assessment, reduction, and communication, Employee bioassay program, and Emergency management, personnel contamination, and response.

- In August of 2024, Regina successfully completed two training courses,
  - Understanding Radiation Risk- 3hours
  - Fluoroscopy Safety and Dosage: 9 hours

Please find below the course description from the accredited Nuclear Medicine Program (Gateway Community Technical College, North Haven, CT) where Regina graduated.

### **Gateway Community Technical College Course Descriptions:**

- **Nuclear Medicine Physics and Radiation Physics** This course will develop the student's understanding of the physics of nuclear medicine technology as the technologist applies it daily. The student will also develop an understanding of the presented concepts as they are related to instrumentation, quality control, imaging techniques and radiation doses.
- **Instrumentation Technology and Techniques** This course will present the theories and operations of the circuitry for nuclear medicine technology equipment as well as applications of statistics for imaging and counting procedures. Topics include operations, appropriate quality control and troubleshooting of nuclear medicine equipment. Students receive instruction in appropriate quality control of testing to maintain compliance with regulatory bodies, along with providing optimum patient care.
- **Radiopharmacy** This course will deal with the production of radionuclides and their use, the use of generators, formulation of radiopharmaceuticals, and operation of equipment. The class will also include the biochemical and physical properties of radiopharmaceuticals and their methods of localization. This is designed to introduce the student to the practical applications of the nuclear medicine laboratory. This provides hands-on training in the techniques of radiopharmaceutical preparations, quality control, In Vitro studies, Occupational Safety & Health Administration (OSHA) training, venipunctures and patient care. The primary objective is for the student to possess a fundamental understanding of the effect of radiation exposure on biological systems. Such effects are the basis for regulations and medical physics practices governing the use of radiation and radioactive materials.
- **Computer Applications in Nuclear Medicine** This course provides the student with mock studies that will enable the student to understand computer data acquisition and develop processing skills for quantification and analysis prior to clinical work.
- **Radiation Safety in Nuclear Medicine** This introduces the principles of radiation protection and the implementation of these principles in the nuclear medicine department. In addition, the federal agencies and regulations that control the use and handling of radioactive materials as related to nuclear medicine are examined.
- **Nuclear Medicine Technology and Techniques** This course is designed to introduce the student to the imaging procedures and techniques performed in the nuclear medicine department. Emphasis is placed on the uses of radiopharmaceuticals and pharmaceuticals in the diagnosis and treatment of disease. This includes the administration of radiopharmaceuticals and pharmaceuticals to patients, imaging of the radiopharmaceuticals and distribution in an organ or area of interest within the body.

- **Positron Emission Tomography (PET) Technology and Techniques** (2 credits). This course will deal with the cyclotron production of radionuclides and their uses, radiation safety for positron emitting isotopes, formulation of radiopharmaceuticals, and operation of imaging equipment. The class will also include the biochemical and physical properties of radiopharmaceuticals and their methods of localization within the body.
- **Clinical Practice I** This course exposes the student to a clinical environment where the understanding of the basic functions and applications of imaging equipment in nuclear medicine, radiation safety and patient care are practiced.
- **Clinical Radiopharmacy** This course exposes the student to a radiopharmacy environment where the practical theory of radiopharmaceutical preparation, measurement, quality control, storage, shipping and receiving are performed.
- **Clinical Practice II** This course exposes the student to a clinical environment where the understanding of the advanced functions and applications of imaging equipment in nuclear medicine, radiation safety and patient care are practiced.
- **Clinical Practice III** This course is an extension of Clinical Practice II. Concentration is focused on the application of all the nuclear medicine departmental procedures. A radiation safety manual will be developed, written and submitted.
- **Clinical Practice IV** This course is an extension of Clinical Practice III. Concentration is focused on an understanding of single photon emission computed tomography (SPECT), whole body and monoclonal antibody imaging, and therapeutic procedures.
- **Nuclear Cardiology** This course exposes the student to a clinical environment where the practical theory of cardiac data acquisition and processing are applied. Concentration is also focused on troubleshooting cardiac data acquisition and processing, and pharmaceutical intervention.
- **PET Clinical Practice and Research** This is focused on an understanding of PET imaging, equipment, radiopharmaceutical usage and patient care.

Please let me know if you need any additional information.

Best Regards,

Christine

**Christine Cooper, MS, CNMT, RT(N), RSO, FACHE, FAB**

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