

From: [Sunset Advisory Commission](#)
To: [Janet Wood](#)
Subject: FW: Medical Physicist Licensure in Texas & the Sunset Staff Review May 2014
Date: Monday, June 30, 2014 8:22:10 AM

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From: Angela Bruner
Sent: Saturday, June 28, 2014 4:37 PM
To: Sunset Advisory Commission
Cc: Lynne Fairbent
Subject: Medical Physicist Licensure in Texas & the Sunset Staff Review May 2014

Dear Sunset review committee,

I am contacting you as a licensed medical physicist (MP0540 Diagnostic & Medical Nuclear Physics) concerning the Sunset Staff Review published in May 2014. I am concerned that the information in the report does not accurately reflect the current environment of professional regulations and health care in Texas or the importance of licensure in protecting Texans from unnecessary exposure to radiation.

I also believe that the removal of licensure for Medical Physicists in Texas would be detrimental for several reasons.

The report suggests that the programs are unnecessary because; (1) deregulation would have little impact on health and safety, (2) they cover professionals that operate in a highly regulated environment, (3) they have 'regulation' provided by another body or through private sector accreditation, and (4) they generate little regulatory activity.

I would like to address each of the areas to provide you with additional information that is not reflected in the report.

1. The report states "deregulation would have little impact on health and safety." Texas is very fortunate to be home to some of the most advanced imaging and treatment facilities in the world. In order for equipment used in these facilities and elsewhere in Texas to operate safely, highly trained individuals are required to assure the safe use of the equipment. Professional regulations are essential. Worldwide there have been some very serious injuries associated with radiation emitting equipment.

Currently, licensed medical physicists are required to provide annual performance evaluations on the equipment to assure that they meet regulatory standards. Without such requirements these annual quality assurance measures might not be performed or be performed by others with less or no qualifications. Licensure in Texas requires medical physicists to meet educational and experience requirements and to pass an examination of their knowledge in the specialty field in which they intend to practice. Without licensure, that minimum level of knowledge and experience would no longer be a requirement, and negative future consequences could likely result. Also, with growing public concern about radiation risk, removing safeguards already in place in Texas (through licensure) seems very unwise. The regulations in Texas currently require physicists to conduct training of physicians who will use fluoroscopy because patients have been burned by prolonged fluoroscopy procedures (at one threshold the Joint Commission even labs them as a sentinel even usually reserved for the wrong patient or body part).

2. The report states the medical physicist licensure program is a "profession that operates in a highly regulated environment." It is true that exposure to radiation in medical applications is regulated for adherence to equipment specification. It is not true that those who practice in radiation imaging, nuclear medicine or therapy are regulated by any other government entity except for those who provide services to support the Mammography Quality Standards Act (MQSA). Less than professional conduct has been a contributor to numerous medical errors. In 2009, reports of medical errors in the Veteran Administration highlighted lack of professional responsibility and accountability. Professional licenses hold individuals accountable in providing services that meet regulatory compliance. When the services do not meet this requirement, professional licensure standards can be used for enforcement against the professional licensee. Without a medical physicist license this would not be possible.

3. The third item in the report to be addressed is the view that medical physicists “have ‘regulation’ provided by another body or through private sector accreditation.” I am not aware of any duplication of professional accountability for medical physicists in another regulatory body or accreditation that meets the equivalent standards for a licensed professional with the exception of the MQSA requirements. In fact accreditation is not required for several types of medical imaging services or for radiation therapy. For some, imaging and radiation therapy accreditation is voluntary and does not require the medical physicists involved to have any specific qualifications. Without licensure there would be no requirement to use experienced, knowledgeable medical physicists. Also, it is only through licensure that all medical physicists practicing in Texas must meet continuing education requirements as some board certified individuals are not required to meet continuing education requirements.
4. The last rationale for sunset, medical physicists “generate little regulatory activity.” is confusing. Do we only regulate those professions that have activity? Is it possible that because of regulations, medical physicists are meeting the requirement of the regulations, improving health care in Texas, and do not require extensive support from agency staff? The Texas licensure law was written and enforced to protect citizens from individuals with little or no knowledge of radiation equipment from providing services that could in fact harm them. Licensed medical physicists must meet minimum educational and board certification requirements to obtain a license. To maintain their Texas license, medical physicists must meet continuing education requirements each renewal cycle (which is quite consistent with other medical professionals).

In addition, if licensure were removed for Medical Physicists it should only be done after the Texas regulations on radiation safety practices are amended so that “qualified physicists” are required to perform the current duties included in the current licensure requirements. The definition of a qualified physicist should include those who are board certified by the American Board of Radiology or the American Board of Medical Physics or the Canadian College of Physics in Medicine in their respective specialties. Note that these specialties include but are not limited to Health Physics, Diagnostic Radiological Physics, Medical Nuclear Physics & Therapy Physics. In this way a state inspector of sites licensed for radioactive materials or certified for x-ray use could check the credentials during the inspection. However, such legislation would take years of careful planning to accomplish. However, even that method would be flawed as there are older physicists who were grandfathered into the current Texas licensure system when licensure was first proposed and are not board certified and wouldn't currently meet the requirements to be able to sit for the board exam today.

Other states are increasing and not decreasing their efforts for x-ray regulations and oversight because of recent safety concerns. Note that California has recently significantly increased their regulatory rules regarding radiation safety practices in the last few years due to several major mishaps in radiation safety. California does not have state licensure for Medical Physicists and if they did and had been following current Texas regulations requiring CT committee meetings regarding monitoring of dose that must include a site licensed medical physicist, they likely would have avoided these issues. It is purely as a result of these incidents that the FDA got involved to check on these issues nationwide. NY Times Article:

http://www.nytimes.com/2009/10/16/us/16radiation.html?_r=0 In

addition, here is an article showing how other states are responding to increase their x-ray regulations to meet the new safety concerns.

<http://www.advisory.com/research/imaging-performance-partnership/the-reading-room/2013/06/radiation-dose-legislation-is-your-state-next>

Without licensed medical physicists or significant changes to regulations requiring the assistance of qualified medical physicists, it will be difficult for the state facilities to meet these standards.

There is a need for all of this increased regulation because the United States is using more and more x-ray and radioactive materials in the practice of medicine every day. We have always known of the increased risks for cancer. Now, because of the first incidents in California, we know that there are skin burns possible from CT scans. We have already known the risks from radiation therapy and accidental over exposures.

<http://www.nytimes.com/2010/01/24/health/24radiation.html?pagewanted=all>

. In addition, there are significant skin damage that can occur during prolonged fluoroscopy procedures.

<http://pubs.rsna.org/doi/pdf/10.1148/radiol.2542082312> . The regulations alone don't prevent these incidents. We must have qualified physicists licensed and required for working on these devices in the State of Texas.

Medical physics can play a vital role in working with the department to ensure that high radiation exposure issues

like this are extremely rare or don't occur. We are there to ensure that equipment and protocols are properly checked so that the staff are delivering the appropriate levels of radiation that are as safe as possible for the patient needing the imaging scan or radiation therapy procedure.

Without licensure, medical facilities may not hire the appropriately trained individuals to perform duties or do the absolute minimum and we will see an increase in radiation safety incidents. Medical Physicists leaving school today have a minimum of a Masters or PhD degree from an accredited program, must attend a 2 - 3 year residency program and sit for two written and one oral exam over about a 3 to 4 year period after graduating to become a fully licensed physicist in one specialty. Without licensure the same work could be done by someone without even a high school degree and thus not have the same level of knowledge needed to ensure safe practices.

Medical physicists are essential for patient safety in diagnostic imaging (radiology), nuclear medicine and radiation therapy.

Professional licensure helps to assure that well qualified individuals provide these services. I would be glad to discuss with you the importance of medical physicist licensure and why it should not be considered for sunset.

Please contact me at:

Sincerely

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