

MICROFILM DIVIDER

OMB/RECORDS MANAGEMENT DIVISION

SFN 2053 (2/85) 5M



ROLL NUMBER

DESCRIPTION

24409

2001 SENATE HUMAN SERVICES

SB 2409

2001 SENATE STANDING COMMITTEE MINUTES

BILL/RESOLUTION NO. SB 2409

Senate Human Services Committee

☐ Conference Committee

Hearing Date February 13, 2001

Tape Number	Side A	Side B	Meter #
1	X		12.2
1		X	3.1
February 14, 2001 1	X		2.4
Committee Clerk Signature <i>Carol Holmquist</i>			

Minutes:

The hearing was opened on SB 2409.

SENATOR DEVER, sponsor of note, introduced bill standards for procedures in human radiologic (ex-ray). Need to have knowledge about the procedures, settings, etc.

REPRESENTATIVE TODD PORTER, cosponsor, supports bill. (Written testimony) There are 600 registered and about 600 non-registered.

REPRESENTATIVE BRUCE ECKRE, cosponsor, supports bill. The education standards are the key to a civilized society.

REPRESENTATIVE GUNTER cosponsor of the bill, supports bill.

AMY HOFFMAN, Radiographer with specialty in the fields of Ultrasound, CT, and Nuclear Medicine. (Written testimony) SENATOR MATHERN: Is there any distinguishment between the license of someone who is grandfathered in or somebody who met all of the training requirements? MS. HOFFMAN: In section 7 the grandfather clause would recognize those

individuals that have indeed been practicing in the rural settings as ex-ray operated would one time and one time only come in under the licensing process as technologists and there would not be a distinction between credentials. SENATOR LEE: Do you think the continuing education would be made available through employers. MS. HOFFMAN: The vast majority of the education and training is through our employers. Conferences, materials through national and state libraries that they could access. SENATOR POLOVITZ: What professions use this technology. MS. HOFFMAN: Several medical and chiropractic. Dental is exception. SENATOR LEE: How would this affect surgeons? MS. HOFFMAN: Licensed practitioners, and doctors would be exempt. SENATOR ERBELE: If this is public safety issue, what issues are problems. MS. HOFFMAN: Sub optimal, overexposed, underexposed, inappropriate control of radiation. Procedure needs repeating meaning additional cost and additional exposure to radiation, as well as delaying medical care.

LISA STOCKS-BRUSH, Registered Radiologic Technologist and Certified Nuclear Medicine Technologist, supports bill. (Written testimony) She presented testimony written by LINDA OTTESEN, supporting bill.

SHIRLEY PORTER, NDSRT, supports bill. (Written testimony) SENATOR LEE: What would happen if a facility did not have someone trained? MS. PORTER: They have mobile units that travel the state for mammology.

KAREN WILLIAMS, BS,(RT), supports bill. (Written testimony) SENATOR MATHERN: Are there any requirements for ex-ray in animals. MS. WILLIAMS: I do not know that.
Neutral Testimony:

KEN WANGLER,, ND Dept. Of Health, is neutral on the bill. If the bill is passes the Dept would like to make some changes in the bill. (Written testimony) Offered amendments.

SENATOR MATHERN: How do your training requirements differ from training requirements you anticipate this board would have? MR. WANGLER: The current training requirements are very vague and difficult to enforce. This bill is looking at a two tiers - a limited licensure and a full licensure. The Dept. is looking at changing to be similar. We are looking at limiting the scope of practice for those in the lower tier of training. They would be limited to certain procedures. SENATOR LEE: How can we do what is best? MR. WANGLER: Courses are available in Montana. 88 hours for anyone who takes ex-rays. Training providers will come in sufficient time. SENATOR KILZER: Are you involved with inspecting ex-ray machines? MR. WANGLER: Yes, about 1/2 ex-rays are not up to standard. They are not properly developed, positions are wrong. Problems with developers; they require maintenance and a basic understanding of the function. If you are not properly trained it is difficult to know whether the problem that you are having is in the ex-ray machine technique or in the developing. Training is critical and we find that to be lacking in this state. SENATOR KILZER: Are there still some hand processing? MR. WANGLER: Yes, there are. SENATOR KILZER: Do you think we need some legislation for machines? MR. WANGLER: probably not. The Feds control the output of machines.

Opposition:

ARNOLD THOMAS, President of ND Health care Assoc., opposes the bill. (Written testimony)
Handed out regulations on this subject. He presented written testimony for MITCH LEUPP.

SENATOR KILZER: Is there a problem? MR. THOMAS: There is an uneven level of competency in ND. There is a safety compliance. We are working toward the level of education. There is a problem, but not in my facilities.

LESLIE ERVAND, hospital at Crosby. Lab people are sent to Billings. We don't have a high volume per day, so we send them to Williston and provide other training and experience. We have cross-trained techs. SENATOR MATHERN: Training requirements are discussion point. What would be the difference if the Dept issued these or the Board did? MR. ERVAND: I don't know if they will be the same. I can live with what is in the draft. Our committee has worked almost a year. It represents everybody. SENATOR KILZER: In Crosby does the clinic have separate ex-rays? MR. ERVAND: A little of both. Radiologist comes quarterly - ex-rays are sent to Williston.

DON WINDMUELLER, Medical Assoc., opposes bill. Support would be of committee. Not necessary to have licensure.

LISA STOCKS-BRUSH pointed out concerns that there is not the cooperation on the committee. The hearing was closed on SB 2409.

February 14, 2001, Tape 1, Side A, Meter 2.4.

Discussion was held. SENATOR MATHERN moved the amendments from Mr. Wangler of the Health Department. SENATOR FISCHER seconded the motion. Discussion. Roll call vote carried 6-0. SENATOR MATHERN moved a late implementation date of January 1, 2003. SENATOR KILZER seconded the motion. Roll call vote carried 5-1. SENATOR MATHERN moved a DO PASS AS AMENDED. SENATOR KILZER seconded it. Discussion. The motion was withdrawn. SENATOR MATHERN further amended to delay all dates in the bill to January 1, 2003. SENATOR KILZER seconded the motion. Discussion. Voice vote carried. SENATOR MATHERN moved DO PASS AS AMENDED. SENATOR KILZER seconded it. Roll call vote carried 6-0. SENATOR KILZER will carry the bill.

Date: 2/14/01

Senate HUMAN SERVICES _____ Committee

Motion Made By Sen Mathen Seconded By Sen Fischer

[illegible]

Amendments from Dept of Health - Wangler

Date: 2/14/01

Senate HUMAN SERVICES Committee

or
☐ Conference Committee

Action Taken Amend late, ^{implementation} date of Jan 1, 2003

Motion Made By Sen Mathews Seconded By Sen Kilzer

[illegible]

Total (Yes) 5 No 1

Absent 0

Floor Assignment

If the vote is on an amendment, briefly indicate intent:

Date: 2/14/07

2409

Committee

☐ Conference Committee

Action Taken No Pass as amended

Motion Made By

[illegible]

Absent

If the vote is on an amendment, briefly indicate intent:

2/14/01

Committee

or

Amendment to implement Jan 1, 2003 in all places

Sen Mathan

By

der Kitzau

[illegible]

If the vote is on an amendment, briefly indicate intent:

Date: 2/4/01

Senate **HUMAN SERVICES** Committee

☐ or
☐ Conference Committee

Action Taken Do pass as amended

Motion Made By Sen Mathum Seconded By Sen Kilger

[illegible]

Absent 0

If the vote is on an amendment, briefly indicate intent:

REPORT OF STANDING COMMITTEE

SB 2409: Human Services Committee (Sen. Lee, Chairman) recommends AMENDMENTS AS FOLLOWS and when so amended, recommends **DO PASS** (6 YEAS, 0 NAYS, 0 ABSENT AND NOT VOTING). SB 2409 was placed on the Sixth order on the calendar.

Page 1, line 2, remove "and" and after "penalty" insert "; and to provide an effective date"

Page 1, remove lines 18 and 19

Page 1, line 20, replace "7" with "6"

Page 1, line 23, replace "8" with "7"

Page 2, line 1, replace "9" with "8"

Page 2, line 2, replace "10" with "9"

Page 2, line 11, replace "11" with "10"

Page 2, line 14, replace "12" with "11"

Page 2, line 19, replace "13" with "12"

Page 2, line 22, replace "14" with "13"

Page 2, line 25, replace "15" with "14"

Page 2, line 27, replace "16" with "15"

Page 3, line 3, remove "nurse,"

Page 3, line 12, remove "nurse,"

Page 3, line 16, remove "nursing,"

Page 3, line 27, replace "August 1, 2001" with "January 1, 2003"

Page 4, line 23, replace "Passes" with "Completes a board-approved course of study and passes" and after the second period insert "The board-approved course of study training standards may be no less stringent than, nor in conflict with, applicable ionizing radiation operator training requirements adopted in accordance with chapters 23-20, 23-20.1, and 23-20.2."

Page 4, line 26, replace "August 1, 2001" with "January 1, 2003"

Page 5, after line 8, insert:

"3. The board-approved course of study training standards may be no less stringent than, nor in conflict with, applicable ionizing radiation operator training requirements adopted in accordance with chapters 23-20, 23-20.1, and 23-20.2."

Page 6, after line 3, insert:

"**SECTION 12. EFFECTIVE DATE.** This Act becomes effective on January 1, 2003."

REPORT OF STANDING COMMITTEE (410)
February 15, 2001 9:02 a.m.

Module No: SR-28-3461
Carrier: Kilzer
Insert LC: 10774.0101 Title: .0200

Renumber accordingly

2001 TESTIMONY

SB 2409

SENATE HUMAN SERVICES COMMITTEE
SENATOR JUDY LEE, CHAIRMAN

TESTIMONY BY
REPRESENTATIVE TODD PORTER

IN SUPPORT OF SB 2409

Chairman Lee and members of the Human Services Committee my name is Todd Porter,
Representative from District 34 in Mandan. I stand before you in favor of SB 2409.

SB 2409 if enacted would create a board to oversee the educational requirements and licensing of
Radiological Technologist in the State of North Dakota.

Currently there are over 630 Registered Technologists in North Dakota plus a large number of
non-registered hospital and clinic employees that perform x-rays on unknowing patients without
explaining their level of training or the risks that they are exposed to by having the procedure.

I understand the sentiments in regards to creating another new board in North Dakota. I think
that eventually we need to look at the creating of a State Board of Medicine that combines the
current medical boards including the physicians, nurses, respiratory therapist, occupational
therapists, social workers and x-ray techs into the North Dakota Board of Medicine, but in the
mean time we need to offer the protection of education requirements and licensure in this
specialized field. We cannot expect our barbers, hair stylists, plumbers and electricians to
operate at a professional level with standards enforced by the state and have procedures such as
skull x-rays in children be performed by individuals without training.

I believe that this professional organization will explain to you today how they differ from other boards in this state. Their primary concern is to limit the rural impact that these requirements would impose in North Dakota. They are concerned that the individuals that are currently performing these procedures can continue in their job and start to receive continuing education through their profession society, they are concerned that new individuals will be needed in rural North Dakota and have made arrangements to have available a restricted license to offer rural North Dakota the ability to continue to offer safe and effective x-ray procedures. And finally, they are interested in offering these services to North Dakota at no expense to the state general fund and to offer these services through license fees under \$25.00 per member per year.

I would be more than happy to answer any questions at this time.

Thank you

TESTIMONY REGARDING SENATE BILL 2409

By Ken Wangler
North Dakota Department of Health
(701) 328-5188

Madam Chairman and members of the committee, my name is Ken Wangler. I manage the Radiation Control Program of the North Dakota Department of Health (Department). I am here today to testify on behalf of the Department. The Department is neither in support of, nor opposed to Senate Bill 2409. If this bill is passed; however, the Department would like to see several amendments made to the bill.

In accordance with North Dakota Century Code, Chapters 23-20, 23-20.1 and 23-20.2, the Department of Health is charged with developing regulations to allow for the beneficial use of ionizing radiation while ensuring adequate protection of public health and safety. The Department carries out this responsibility, in part, by requiring minimum levels of training and competence for radiographers, as defined in this bill.

One of the best ways to ensure the beneficial use of ionizing radiation in X-ray is to ensure the level of radiographer training and competence is adequate. A lack of training and competence routinely results in poor image quality, resulting in the need for repeat procedures and increased patient exposure. In some cases, the inadequate films are not repeated or adequate films are not obtainable which may result in the inability to make a diagnosis.

There are several provisions in the Senate Bill 2409, as proposed, that the Department would like to see amended. These are as follows:

1. Section 2, page 3, Lines 3, 12 and 16 should not exclude nurses from the licensing requirements of this bill. Aside from time

spent on patient preparation it is our understanding that nurses receive little or no training in radiologic technology. Also, we are not aware of any standards the Board of Nursing has for operating ionizing radiation equipment nor are there any areas of study included in currently approved programs of radiologic technology. Unless nurses are given specific training in radiologic technology, they may lack the technical training and experience necessary to safely perform radiography on humans.

2. Section 6, page 4, Line 23, the Department strongly encourages a training requirement be added for restricted licensure. Testing without a training requirement has proven to be a failure in many states including the State of Minnesota. In Minnesota there are trainers who provide one and one-half days of instruction on the content of the examination which is immediately followed up with the exam. The students are basically taught the test. One and one-half days of instruction are not sufficient to take x-rays
3. At the end of both Section 6, page 4, Line 23 and Section 7, page 5, Line 5 add the words, 'The board approved training requirements shall be no less stringent than, nor in conflict with, applicable ionizing radiation operator training requirements promulgated in accordance with North Dakota Century Code Chapters 23-20, 23-20.1 and 23-20.2'. The Department feels this will prevent the newly formed licensing board from issuing a license to an individual who is not in compliance with the North Dakota Radiological Health Rules (NDAC 33-10).

I have attached the proposed amendments in proper form for your consideration. This concludes the Department's testimony of Senate Bill 2409. I will be happy to answer any questions you may have. Thank you.

PROPOSED AMENDMENT TO SENATE BILL NO. 2409

Page 1, remove lines 18 and 19

Page 3, line 3, remove "nurse,"

Page 3, line 12, remove "nurse,"

Page 3, line 16, remove "nursing,"

Page 4, line 23, Before "Passes" insert "Completes a board-approved course of study and"

Page 4, line 23, after "exam," insert "The board-approved course of study training standards shall be no less stringent than, nor in conflict with, applicable ionizing radiation operator training requirements promulgated in accordance with North Dakota Century Code Chapters 23-20, 23-20.1 and 23-20.2."

Page 5, line 5 after "board;" insert "the board-approved course of study training standards shall be no less stringent than, nor in conflict with, applicable ionizing radiation operator training requirements promulgated in accordance with North Dakota Century Code Chapters 23-20, 23-20.1 and 23-20.2;"

-1-

Madam chairman and members of the committee, my name is Amy Hofmann and my background is a medical radiographer with specialty in the fields of Ultrasound, CT and Nuclear Medicine. I represent the North Dakota Society of Radiologic Technologists. With me today are several representatives from our professional organization. We welcome the opportunity to appear before you today during the hearing of Senate Bill 2409.

I would like to share with you some key points in support of this bill. First and foremost is the issue of necessity, **necessity for public safety** as it depends as much on who is operating radiologic equipment as on the equipment itself. Regulation of equipment is very misplaced in the healthcare environment. There is public concern over television, microwave and cell phone radiation, yet medical equipment does not expose the public to harmful radiation without an operator to activate it. Consumer safety relies on the expertise of the operator, as it is the operator who is initiating and administering the exposure. The expertise of the operator depends on the education and training they have had in radiologic sciences, which ultimately will determine the competency of the operator.

There are existing reports of actual burns suffered by patients undergoing fluoroscopy and computed tomography. As a technologist in an unregulated state, I am willing to make such a bold statement in that it is likely that the most 600 plus Registered Technologists could tell you stories and experiences where they have witnessed gross errors made and radiographic exposures taken that resulted in suboptimal if not totally useless radiographs. What is the net result? Avoidable, unnecessary radiation exposure,

the need for repeat exposure (perhaps at yet another facility) and increased cost to the patient and the healthcare facility.

Approximately 1.2 million people in the United States are expected to be diagnosed with invasive cancer in 2001. Nearly 565,000 Americans will die of cancerous diseases, more than 1,500 each day. Cancers caught at the earliest stages of development are less likely to spread to other parts of the body, improving chances of them being completely cured. Radiologic examinations often identify abnormalities very early in the progression of a disease, long before they become apparent with other types of diagnostic testing. With early detection and aggressive treatment, a strong majority of cancer patients can be cured. Accurately diagnosing and treatment requires a high level of precision, reliability and consistency.

The medical team responsible for detecting and diagnosing types of cancer include the primary care physician, a radiologist, the specialty physician who interprets medical images ordered by the primary care physician and finally the radiologic technologist who create the images. The radiologist carefully examines each image for signs of disease, making a diagnosis possible. Accurate diagnosis is possible only when accurate imaging information is provided.

There remain 15 states that do not license radiologic technology personnel, and in the 35 states that do, as little as a few hours of training are given before being allowed to perform radiologic procedures. This situation is potentially dangerous for patients because a radiologic procedure is only as effective as the person performing it. An underexposed chest x-ray cannot reveal a lung tumor, the patient's true medical condition is not discovered at the critical initial stages and intervention is delayed.

Cancer patients shouldn't have to wonder whether the person taking their x-rays or setting up their radiation therapy treatment is competent. The x-ray personnel play a key role in detecting and diagnosing many types of cancers. The medical images are used to stage cancer, to image tissue specimens, to formulate surgical strategies, to plan therapies and evaluate postsurgical sites and follow up on the care of the cancer patients.

It is important to understand that this diagnosing process may very likely begin in our small towns by the family practice doctors, which is then typically referred to our larger healthcare facilities. A chest xray for example is the gold standard for diagnosing lung cancer, and a chest xray is the most common x-ray done in small and large facilities alike. Weeks make all the difference in the world when we are talking about cancer, and all of us as healthcare consumers would want and expect the best level of care possible for their families.

I understand that there is concern from the rural healthcare communities that to require licensure of xray operators would be an undo hardship for them as they would not be able to hire or retain an educated and trained operator. We feel that our recommendation of a one time grand fathering clause adequately addresses this concern. (section 7) which will allow for the licensing of any individual who has worked in the field for 6 months. This bill will not exclude anyone who may be practicing radiography now. In the future applicants could apply for a limited license or a full license to perform a specific level of radiology services, provided they have adequate training and are deemed competent by a Radiologic Technology Board.

There has been much discussion as to what the defined level of adequate training or competency that should be required of x-ray operators and what licensed healthcare

professionals should be exempt. We feel it is very important to keep in mind that we need to establish and follow specific requirements that in the end result in an xray operator producing quality diagnostic images.

Another concern that has been voiced is that xray operators would be required to have continued education in the field of radiology in order to renew their license. We recommend 24 hours of continuing education over the 24 month time frame. This level appears appropriate and achievable. Appropriate as other allied health professions require approximately the same if not more in continuing education and achievable in that this education can be gained in a multitude of ways. I will refer you to our information packet insert, the fact sheet that lists educational opportunities in North Dakota which are sponsored by our profession.

Lastly, I would briefly like to touch on the issue of creating a board in the enactment of this bill. Although we can appreciate and understand legislators opinion that conservative government would avoid such moves, making less government, not more. We however feel strongly that a separate and distinct radiologic technologic licensing board would be the most efficient and effective method of establishing and maintaining the regulation of x-ray personnel. We have had and continue to have ongoing conversations with several healthcare licensing boards which we feel we could appropriately be placed under. There are and would likely be significant problems and difficulties with that, mainly that in number (600 to 900 radiological professionals) we would be a huge new load to their duties and responsibilities, and secondly the problem of reorganizing, existing board losing their autonomy and ability to effectively address

and answer specific and pertinent issues of public health and safety as it affects their particular area of healthcare services.

In conclusion, I would like to summarize in stating that the licensing of xray operators is an issue that is long overdue in the state of North Dakota. We as professionals believe that this is a very significant public health and safety necessity, that enacting Senate Bill 2409 that requires x-ray operators to be adequately trained and deemed competent by an established and separate board of Radiologic Technology is the most effective and efficient manner to accomplish this.

-1-

Madam Chairman and members of the Human Services Committee, my name is (Lisa)

(Stocks-Brush) I am a Registered Radiologic Technologist and a Certified Nuclear Medicine Technologist. I currently am serving the North Dakota Society of Radiologic Technologists as CO-Chairman of the Licensure Committee.

We welcome the opportunity to appear before you today and commend the North Dakota State Legislature for its attention and concern to this very important subject.

In recent years, we have all heard considerable concerns regarding risks from radiation exposure. We must remember that 90% of public exposure to man-made ionizing radiation results from medical procedures, primarily diagnostic x-ray examinations. Diagnostic x-rays are an invaluable tool in the diagnosis and treatment of disease. However, any unnecessary exposure does produce risk without benefit.

In North Dakota, we do not have any enforceable minimum standards for ionizing radiation operators. Literally, anyone off the street can be hired to operate potentially dangerous equipment. Radiation is not detected by any of our senses, therefore unknowingly; the operator has the potential to produce biological damage not only to the people of North Dakota but also to themselves. More often than not, the patient is unaware of the qualifications of the operator or the quality of the exam they are receiving. They entrust their health and safety to us. We have the moral the ethical responsibility to protect our patients. Unfortunately, the basic chest x-ray, which most of us here have probably had at one time or another, when performed by an uneducated, untrained

operator has the potential to deliver 100 times the radiation dose to the patient as the same procedure performed by a properly educated Radiologic Technologist. Medical radiation procedures are only as safe as the people performing them are. Too many injuries and diseases can be misdiagnosed due to inadequate radiologic examinations. The performances of these exams require substantial knowledge and understanding of the safe operation of x-ray equipment, selection of exposure factors, image recording systems, radiation beam adjustments, as well as, proper patient positioning and knowledge of human anatomy, physiology, and pathology. Although North Dakota is a very rural state, we feel that every person has the right to safe and diagnostic radiologic procedures. Through education and training we can provide properly trained personnel to provide these services to all areas of our state without great hardship.

Radiologic Technologists have a great deal of responsibility. Even though the physician orders the exam, the technologist works independently and uses their judgment and knowledge to not only perform the technical portion of the requested exam, but provide patient care and instruction. We work without direct physician supervision and must think quickly and often are providing emergency lifesaving care. (See attached personnel letter regarding radiation burns.) This is just one example why we need education for all ionizing radiation operators. We need continuing education to both keep our skills and also stay current with the ever-changing technical aspects of our profession. Technology is changing faster than you can imagine in the field of radiology. We need to know how and when we need to change the exposure technique. Is the patient larger or smaller than average? Do they have an underlying disease that would require more or less penetration

of the x-ray beam to provide the radiologist with an optimal image to diagnosis and evaluate the patient for proper treatment. These are the decisions made on the spot with every patient we encounter. The more knowledge and understanding we obtain the better decisions and choices we can make. Radiation physics, radiation protection, radiation biology, as well as, pathology, anatomy, and communication are a part of our daily practice. Applying our knowledge of all these areas to the situation is the key to quality patient care.

I am standing here today to ask you to support Senate Bill 2409 along with our efforts to establish minimum standards for x-ray operators and increase the education of those individuals now performing x-rays to protect and provide the best quality care to all the people of North Dakota.

My name is Linda Otteson. I am a Registered Radiologic Technologist.

I am writing you with my concerns about unlicensed radiologic personnel. I have first hand experience with a non-licensed technician.

My brother was in a serious truck accident on October 1, 1993. He was taken by ambulance to a rural hospital. Upon arrival the physician ordered C-spine, T-spine and L-spine x-rays.

He was taken to the x-ray department Very important you always start with the C-spine in a trauma series.

She started with his L-spine first, which there was no problem, as what he tells me the tech said looked O.K. They proceeded through to the T-spine that also went O.K. until they got to the C-spine. The trauma series C-spine should go as follows: Lateral-, which is the most important! You have to get down to T-1, which will include all of the C-spine (7 vertebra). This shows if there is a fracture or any misalignment in the C-spine. If you have a very broad shouldered and/or a muscular man or woman it sometimes is very hard to get C-7, as you have the shoulders and thick muscle in the way.

In this situation they could not get a good film of C-7. What happened is they kept taking x-ray upon x-ray to try to see C-7! They could not get C-7 so they kept setting higher and higher kV and MaS to try and get through his very broad and muscular shoulders. During the whole time he kept questioning in his mind if this person knew what they were doing! He did not convey that to the person as they were trying hard not to move his neck. He felt somewhat at ease.

After working on him for 1 1/2 hours

They finally achieved one that was O.K. but still would not have been passable if a registered technologist had taken it. He was sent back to the Emergency Room where the Physician took off the collar and said "they did not get a real clear x-ray of his C-7, so he would have to go get some more x-rays in Fargo, where they had better x-ray equipment"! I have to put an exclamation here as you don't need better x-ray equipment, just someone who knows what to do with that equipment and positioning when something doesn't work!

We took him down to Fargo, got the x-rays and they were able to see C-7 and T-1! It was not because of better equipment: a Registered Technologist who knew what to do with the equipment and positioning of my brother did it.

The ER Physician asked if he had been burned in the truck accident on his neck. My brother said "No", the Physician told him that it was radiation burns from all the x-rays performed on him trying to get C-7! I thought of how much radiation he had to have to get radiation burns!

I would never have thought twice about this nor does anyone else who has not gone to Radiology School. I was going to x-ray school at the time of his accident and I did some investigation and found that this person did not go to x-ray school and in fact was a Lab Tech. Further investigation proved rather interesting when I found out that in the state of North Dakota you do not have to go to school to perform x-rays on a person.

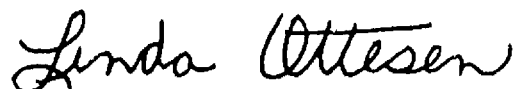
When I think of how many people are unaware of not having a licensed technologist in their clinic or hospital. Would they really want them taking their x-rays? Or would they want someone who is trained in the radiology field who would know how to use that equipment and how to position that patient. It's very critical in trauma or any other x-rays that need to be done on your loved ones.

Would you want a Pathologist reading your x-rays or would you want a Radiologist reading them who is trained in reading x-rays.

The same holds true in doing x-rays, do you want someone whom is trained and licensed doing x-rays? Or do you want someone who will give you radiation burns?

Thank you for your time in this matter.

Sincerely,

A handwritten signature in cursive script that reads "Linda Ottesen".

Linda Otteson, RT(R)(M)

February 13, 2001

Madam Chairman and members of the Senate Human Services committee, my name is Shirley Porter. I represent the North Dakota Society of Radiologic Technologists (NDSRT), a professional organization founded for the express purpose of enhancing the proper and safe delivery of medical radiological services through education. With me today are Registered Radiologic Technologists and members of the NDSRT. We welcome the opportunity to appear before you today during these hearings and commend the North Dakota Legislature for its attention to this very important subject.

I would like to take a few moments to show how education and minimum standards can benefit our rural and urban communities. You may not be aware that there are about 630 Registered Radiologic Technologists in the state of North Dakota according to the American Registry of Radiologic Technologists (ARRT). There is currently no way to quantify the number of non-registered people taking medical radiographs. There are also no controls on who performs the procedures, nor is there a census of the practice. The goal of Senate Bill 2409 is to ensure that every person receiving an x-ray in the state of North Dakota receives the "Quality Care" they deserve. We have to remind ourselves as professionals that the most important focus of our career is to take care of our patient and to assure that they are getting the best care possible; this falls under our professional code of ethics. In the absence of such a professional code, one wonders how to ensure optimal patient care for all. We've learned all too well from the past that voluntary standards have not been effective.

A relevant, recent example is the field of mammography. It is well understood that widespread mammographic screening has the potential to significantly reduce mortality from breast cancer. However, the effectiveness and success of such screening depends on consistent, high quality mammographic images and to obtain such images at low doses of radiation.

The American College of Radiology (ACR) established a voluntary mammography accreditation program in 1987 to help assure the reproducibility of high quality mammograms. Before the Mammography Quality Standards Act (MQSA) of 1992 only 89% of facilities passed phantom image tests, which are used to assess the technical quality of mammograms in a facility. Today 98% of facilities pass this test. In 1992, 14 of the 40 North Dakota mammography site providers were voluntarily accredited through the American College of Radiology. Today all 40 of the providers in the State have met and passed the mandatory compliance standards set by the ACR. The Food and Drug Administration (FDA) believes that MQSA has had a positive impact on the mammography quality, mammography radiation dose and breast cancer mortality. These encouraging outcomes are the result of the mandatory compliance standards. Among other things, these standards mandate that mammographers stay current in their field through continuing education specific to mammography. These mandatory standards happened because the public demanded this happen.

Properly calibrated equipment and well-educated radiologic technologists are primary elements in the safe delivery of this radiation.

I commend the North Dakota Legislature for its interest and timely concern with respect to this important issue. The art and science of medical diagnostic radiography is best practiced by those with an appropriate preparation and understanding of that art and science. We believe that this legislative area demands prompt and effective action. We urge the North Dakota Legislature to continue its efforts to seek a sound legislative solution to this problem. We believe it is essential to protect the rights of the people of North Dakota by having properly performed radiologic examinations and protection from the hazards of excessive and unnecessary radiation.

Again thank you for your full attention and time.

Madam Chairman, and members of the Human Services committee:

My name is Karen Williams, BS (RT), a 25 year technologist with advanced certification in CT. I come before you today representing the NDSRT and my fellow technologists.

Do people without proper education in radiobiology realize the impact that ionizing radiation can have on an unborn fetus, at what point cell division is most crucial, or the impact that ionizing radiation has on a young child's reproductive organs? These are all reasons that we need Senate Bill 2409 to be put into effect

On a national level, in order to retain my standing as a Registered Technologist, I have to complete 12 accredited hours of continuing education per year. How can you honestly argue that there is anything negative about requiring continuing education for anyone utilizing ionizing radiation for diagnostic purposes? We are talking about human lives here.

I have heard concerned voices speaking out regarding the small rural towns and the effects this would have on them and the cost to the clinics or hospitals. I ask you to look at it from this angle—how much more will it cost for the taxpayers when a tumor on a chest x-ray is missed because of under-exposure, or conversely, "burn out" due to over-exposure? Or, upon viewing a completed abdominal exam, an area of question is seen. Would the non-registered technician without proper education, know the special views to perform to demonstrate the area in question, or even where to look up the information?

It is much more cost effective to treat a lung tumor when radiation alone, or surgery alone, can cure the patient. The hospital bill immediately goes up into the

hundreds of thousands of dollars when a patient needs surgery, radiation, and chemotherapy, as a combined treatment. Accurate diagnosis can simply be obtained by proper training of personnel utilizing ionizing radiation for diagnostic purposes. Time, distance, and shielding have been drilled into our minds since we set foot into x-ray school. What if it were your child's reproductive organs that were damaged, or your child who developed radiation induced cancer at an early age because of too many over-exposed exams, or the lack of shielding? What if your father or grandfather's life could have

been spared because a chest x-ray ^{caught} ~~missed~~ a spot on their lung that turned out to be malignant? I think it is time to focus on who this bill is going to effect. Can you really put a dollar amount on a human being's life? A human life is priceless, and the dollar value

just went up when someone you love is staring into the x-ray tube.

Don't deny North Dakotans the right to quality exams. The people you love and care about

deserve the knowledge and skill that trained and educated personnel have to offer.

Once again, thank you for your full attention.



North Dakota Healthcare Association

Vision

The North Dakota Healthcare Association will take an active leadership role in major healthcare issues.

Mission

The North Dakota Healthcare Association exists to advance the health status of persons served by the membership.

2001 SESSION

TESTIMONY SB: 2409

Madame Chairman, members of the Senate Health and Human Services Committee, my name is Arnold Thomas, President, North Dakota Healthcare Association and I appear before you in opposition to Senate Bill No. 2409.

This bill can best be described as a solution looking for a problem.

Let me give you some background:

This same concept of x-ray operator licensure and training mandates was introduced during the 1999 session and it met with defeat.

In the fall of 1999, the health department then attempted to impose administratively, a mandatory number of training hours on non-certified operators of x-ray equipment. When challenged on this attempt, the department, in writing admitted that this was beyond their regulatory authority.

The department then convened an advisory group to assess the merits of x-ray operator licensure and training mandates. The advisory group consisted of representatives from a broad array of interests, including the ND Society of Radiological Technologists, the ND Healthcare Association, the ND Medical Society, the ND Medical Group Management Association, the ND nurses association, the ND Chiropractic Association, the director of radiology from St. Alexius Medical Center, the state's chief health officer, and several radiation specialists from the state department of health. Representative **Todd Porter** was also a member of the advisory group.

This group could not reach a consensus on the issue of x-ray personnel licensure and mandated training as of its last meeting in August and to the best of my knowledge, the group has not met since.

Earlier this month, the ND Healthcare Association conducted a survey of its 25 rural facilities. In 21 of those facilities one can find a combination of nationally

certified and non-certified x-ray personnel; the remaining 4 use non-certified x-ray personnel exclusively.

Do not however equate non-certified personnel with untrained personnel. Our facilities take extraordinary means to ensure that patient and operator safety is not compromised.

Two of the four facilities that use non-certified x-ray personnel send their people to a formal training program in Billings, Montana. The third facility sends its x-ray personnel to Fargo for training and the hospital supplements this off campus training with on-site programs provided semi-annually by a radiologist from Fargo. The fourth facility sends its personnel to Trinity Hospital in Minot. In addition to this effort, a Minot radiologist provides on-site training, and personnel in the Northwest part of the state have an opportunity to attend a regional x-ray training program conducted by Altru-Health Systems out of Grand Forks.

The other thing that you have to remember is that the system of healthcare delivery has many built-in safeguards. For example, regardless of who takes the x-ray, the product is read by an attending physician and by a radiologist. If there is any concern about the quality of the x-ray, the attending physician and the radiologist get involved very quickly because they cannot accurately read a poor quality x-ray. More importantly, they bear the liability for the safe operation of the x-ray equipment from the perspective of both the patient and the operator.

Another built in safeguard comes in the form of statistics. Hospitals are prolific counters. As part of their ongoing utilization review efforts, hospitals count and compare what they do and what they use against their own historical patterns and those of their peers. They compare not only the number of people requiring x-rays, but they also compare the number of films being exposed. If the numbers are higher than expected, an inquiry is made very quickly to determine if there are issues of safety or issues of excess expenditures that need to be addressed.

A further safeguard comes from the state itself. The state licenses the x-ray machines. The state inspects the machines for safety compliance and in addition, reviews films, and engages in interviews with personnel to determine appropriate usage.

To quote Mr. Wangler, the director of the Health Department's Radiation Control Program in a presentation to the State's Health Council, "...when severe cases are discovered, the Radiation Control Program has worked with the facilities on a case-by-case basis, to define the necessary training and experience to raise their competence to an acceptable level. "

This case-by-case approach is one that has worked well. Our facilities understand the health and safety issues concerning x-rays and have done an exemplary job of ensuring the availability of training that is appropriate to their size, scope, and nature of service.

The one-size fits all approach advanced by this bill will not foster any greater commitment to patient care nor result in better or safer procedures than we already have.

Nothing has changed since the defeat of this concept in 1999. Because SB 2409 brings nothing new to the discussion, it retains its status as an unnecessary piece of legislation. We therefore respectfully request a DO NOT PASS on this bill.

necessary to meet the needs of patients served, such as in hospitals serving only psychiatric or substance abuse patients, the laboratory services may be provided through a contractual agreement with a certified laboratory.

History: Effective April 1, 1994.

General Authority: NDCC 23-01-03(3), 28-32-02

Law Implemented: NDCC 23-16-06

33-07-01.1-23. Radiology services.

1. The general acute hospital shall provide and maintain radiology services sufficient to perform and interpret the radiological examinations necessary for the diagnosis and treatment of patients, to the extent that the complexity of services are commensurate with the size, scope, and nature of the hospital. Additional required services must be provided by shared services or referral of patients.
 - a. The physician responsible for the direction and supervision of radiology services must be board certified or eligible for certification by the American board of radiology or equivalent. The physician responsible for radiology services must be a member of the medical staff. This individual's responsibilities must be identified in the policy and procedure manual or other document.
 - b. Technicians and technologists employed in the radiology services must have had sufficient training and experience to carry out the procedures safely and efficiently commensurate with the size, scope, and nature of the service. A means for evaluating qualifications must be established and used. The physician responsible for radiology services shall document as to the acceptability of the qualifications specific to each radiology technician or technologist.
 - c. The hospital shall provide for emergency radiology services at all times.
 - d. Complete signed reports of the radiological examinations must be made part of the patient's record and duplicate copies, as well as the films, must be kept in the hospital for a period of five years.
 - e. Written reports of each radiological interpretation, consultation, and treatment must be signed by the physician responsible for conducting the radiological examination and must be a part of the patient's medical record.

- f. Radiation workers must be checked by film dosimeter to determine the amount of radiation to which they are routinely exposed. Records must be maintained to reflect each individual's exposure level. These checks must be conducted on a monthly basis until the radiation exposure history for the radiation worker indicates levels below maximum permissible dose for a period of one year. When radiation dose levels have remained below the maximum permissible dose for a year, radiation doses may be monitored on a quarterly basis as long as the exposure remains below the maximum permissible dose.
2. Primary care hospitals are subject to the radiology services requirements for general acute hospitals in this section.
3. Specialized hospitals shall provide radiology services to meet the needs of patients served consistent with the radiology services requirements for general acute hospitals in this section. If onsite radiology services are not necessary, such as in hospitals serving only psychiatric or substance abuse patients, the radiology services may be provided through a contractual agreement with an institution providing radiology services.

History: Effective April 1, 1994.

General Authority: NDCC 23-01-03(3), 28-32-02

Law Implemented: NDCC 23-16-06

33-07-01.1-24. Nuclear medicine services.

1. If the acute hospital provides nuclear medicine services, the services must be provided to meet the needs of the patients and in a safe and effective manner.
 - a. The hospital shall have available written verification of compliance with article 33-10.
 - b. The hospital shall have evidence of licensure to handle radioactive materials.
 - c. The physician responsible for the direction of the nuclear medicine services must be a physician who is qualified to provide nuclear medicine services and who is a member of the medical staff.
 - d. Nuclear medicine services may be ordered only by a licensed health care practitioner whose qualifications and medical staff privileges allow such referrals.
 - e. Personnel employed in nuclear medicine services must meet the qualification and training requirements, perform the

Mountrail County Medical Center
PO Box 399
Stanley, ND 58784
(701) 628-2424

Testimony SB 2409

Members of the Senate Health and Human Services Committee:

I had intended to be here in person but due to some unforeseen problems I am unable to attend. I have asked Mr. Thomas to distribute my comments to you regarding bill 2409.

My name is Mitch Leupp, I am the administrator of Mountrail County Medical Center a 25-bed Critical Access Hospital, in Stanley North Dakota.

I am in opposition to SB 2409 regarding the licensure of individuals who administer human radiologic procedures.

I feel that this bill is not needed and adds administrative burden that does not add any value. We have safe guards and quality review built in to the system of provision of radiologic services.

We currently employ 2 Medical Technologists registered by the American Society of Clinical Pathologists, which is a four-year degree, and 2 Medical Laboratory Technicians, which is a two-year degree who are also cross-trained to provide our patients with radiological services.

To ensure safe and quality services in our radiology department each of these employees initially spent a minimum of six to eight hours with Radiology Consultants in Minot to ensure competency in basic radiologic procedures. Any new employees, as with any other department or job are provided training and orientation. During the past year we hosted a two-day radiology workshop that Altru Health System put on for staff such as ours as ongoing education. We also provide with the assistance of Radiology Consultants ongoing quality review and feedback with any problems or concerns that arise. They are also available for consultation at any time. Also we have a close relationship with Trinity Health in Minot if we need to consult on any issues with their radiology department. We also require that our staff get a minimum of seven hours of ongoing education per year. This is accomplished through workshops and interactive ETN sessions through UND School of Medicine.

Mountrail County Medical Center contracts with Radiology Consultants in Minot ND as our consultant radiologists. Dr. Kenneth Keller of Radiology Consultants is our director of radiology services. Within this relationship they provide oversight on our policies and procedures and quality review. They also provide training and supervision on as needed basis, which helps to ensure that our staff and patients have quality and safe administration of all of our radiological services. Our medical staff as well as the radiologists read every x-ray and if they see problems with quality it is addressed immediately.

We currently administer on average approximately fifty five to sixty x-rays per month. Due to this low volume our facility uses the Lab technicians that are cross-trained to administer the x-rays. We must have lab and x-ray services available 24 hours per day to cover our emergency room. By using the staff that is cross-trained we can have the same person cover both the lab and x-ray services. Without the option to do this it would have a devastating financial impact on us.

The North Dakota State Department of Health surveys our facility. In the survey process they review our radiology department for problems. They review our quality assurance and policies and procedures as well as the actual monitoring of radiological services. If they find problems we are required to address those problems with an acceptable plan of correction and monitoring.

Again, I apologize for not being able to be here in person but would welcome any questions that I could address. I can be contacted at Mountrail County Medical Center at (701) 628-25424 or by e-mail at mblhne@stanley.ndak.net. Thank you for your consideration on this issue.

Sincerely,



Mitch Leupp
Administrator
Mountrail County Medical Center

PROPOSED CHANGES TO NDAC 33-10-06-03.1.a.

Training Requirements For X-ray Operators

- (2) All individuals, except those listed in part 1 of Appendix G, prior to operating the X-ray systems, shall be adequately instructed in the safe operating procedures and be competent in the safe use of the equipment commensurate with the size, scope, and nature of the service as outlined in Appendix F. In addition, all individuals shall meet the specific requirements as outlined in subparagraphs (a) and (b) of this paragraph. The department may use interview, observation or testing, or both, to determine compliance. Records must be maintained by the registrant to demonstrate compliance with this paragraph.
- (a) Tier I operators are limited in scope of practice to only those procedures listed in appendix I, except as allowed in subparagraph (c). Tier I operators must meet the prerequisite qualifications, receive training, and demonstrate competence as follows:
- [1] Tier I operators shall have successfully completed the course of training required by one of the Allied Health Professions listed in part 2 of Appendix G, and
 - [2] Complete at least 100 hours of didactic instruction. A minimum of 80 hours must be obtained from a single training program providing didactic instruction in accordance with part 1 of Appendix H, and
 - [3] Complete the clinical experience requirements in part 2 of Appendix H.
 - [4] Individuals who have completed the training and experience requirements in effect prior to the effective date of this regulation and have been actively working as an X-ray operator for the 6 months prior to the effective date of this regulation, are exempt from the requirements of Items 1 & 3 above and must complete the didactic training requirements in Item 2 above within three years from the effective date of this regulation.

(b) Tier II operators are not limited in scope of practice. Obtaining Tier II status will consist of one of the following:

- [1] Obtain eligibility or board certification with the American Registry of Radiologic Technologists (ARRT), or
- [2] Obtain eligibility or board certification with the American Registry of Chiropractic Radiologic Technologists (ARCRT) and only perform X-ray examinations for chiropractic services, or
- [3] Receive Department approval, through individual consideration, by demonstration of an acceptable level of education and clinical training, or
- [4] Demonstrate current enrollment in an educational program accredited by a process acceptable to the Department, and provide documentation of competency in all routine radiographic procedures and specialty views.

(c) Individuals listed in part 3 of Appendix G, may, in emergency situations, obtain diagnostic X-ray examinations performed by a Tier I operator which are in addition to those procedures listed in Appendix I. These examinations must be conducted in accordance with the following:

- [1] The requesting individual must provide a written order specifying what types of diagnostic X-ray examinations outside the scope of procedures listed in Appendix I are requested. The order shall contain an explanation of the emergency nature or medical reason for the order.
- [2] The requesting individual must provide direct supervision during the time the X-ray image is obtained.

Appendix F currently
exists in NDAC 33-10-06

There are no changes

being proposed to Appendix F

APPENDIX F

DETERMINATION OF COMPETENCE

The Department may use interview, observation and/or testing to determine compliance. The following are areas in which an individual shall have expertise for the competent operation of X-ray equipment:

1. Fundamentals of radiation safety.

- a. Characteristics of X-radiation.
- b. Units of radiation dose (mrem).
- c. Hazards of exposure to radiation.
- d. Levels of radiation from sources of radiation.
- e. Methods of controlling radiation dose.
 - (1) Working time.
 - (2) Working distance.
 - (3) Shielding.
 - (4) Collimation.
 - (5) Filtration.
 - (6) Gonad shielding and other patient protection devices.
 - (7) Restriction of X-ray beam to the image receptor.
 - (8) Grid utilization.
 - (9) Utilization of mechanical immobilization device.

2. Familiarization with equipment.

- a. Identification of controls.
- b. Function of each control.
- c. How to use a technique chart.

3. Film processing.

- a. Film speed as related to patient exposure.
- b. Film processing parameters.
- c. Quality assurance program.

4. Emergency procedures.

- a. Termination of exposure in event of automatic timing device failure.

5. Proper use of personnel dosimetry.
 - a. Location of dosimeter.
 - b. Interpretation of personnel monitoring reports.
6. Anatomy and positioning.
 - a. Relevant human anatomy.
 - b. Relevant human physiology.
 - c. Radiographic positioning.
7. The requirements of pertinent federal and state rules.
8. The licensee's or registrant's written operating and emergency procedures.

History: Effective June 1, 1986; amended effective June 1, 1992; May 1, 1998.

NDAC 33-10-06
APPENDIX G

The following are individuals that qualify for training exemptions, approved Allied Health professions which qualify for cross-training into diagnostic X-ray as a Tier I operator and individuals who may order diagnostic X-rays to be taken by a Tier I operator outside the scope of procedures in Appendix I:

1. Individuals exempt from minimum training requirements in Paragraph 33-10-06-03.1.a.(2).
 - A. Medical doctors *Podiatrist*
 - B. Chiropractors
 - C. Doctors of Osteopathy
2. Individuals who qualify for cross-training as a Tier I diagnostic X-ray operator.
 - A. Nurse Practitioner, Registered Nurse, Licensed Practical Nurse
 - B. Emergency Medical Technicians level III, Paramedics
 - C. Physical Therapist, Physical Therapy Assistant
 - D. Occupational Therapist, Occupational Therapy Assistant
 - E. Medical Technologist, Medical Lab Technician, Clinical Lab Technician *Phy Asst*
3. Individuals who can order emergency X-ray examinations outside the scope of procedures in Appendix I to be taken by Tier I operators:
 - A. Medical Doctors
 - B. Doctors of Osteopathy
 - C. Physician's Assistant *Chiropractor*
 - D. Nurse Practitioner.

APPENDIX H

Tier I X-ray Operator Training Requirements

Training requirements have been divided into 2 sections, didactic instruction and clinical experience/supervision. Upon completion of didactic training, the individual must complete the clinical experience requirements of either Part A or Part B of Section 2 and the record keeping requirements of Section 3 and demonstrate competence for all examinations listed in Appendix I.

1. Didactic instruction section: Individuals shall complete a minimum of 100 hours of didactic training. A minimum of 80 hours must be completed at a single course and provide the minimum hours of instruction in the subjects as indicated below. Correspondence course work cannot exceed 20% of the 80-hour course (16 hours maximum). The 80-hour course is subject to Department approval.

A.	Basic x-ray physics	12 hrs.
B.	Radiobiology	1 hr.
C.	Radiation Protection	6 hrs.
D.	Principles of Exposure	15 hrs.
E.	Darkroom Procedure	2 hrs.
F.	Processing	2 hrs.
G.	Positioning	
1.	Chest	4 hrs.
2.	Abdomen	4 hrs.
3.	Extremity	8 hrs.
4.	Spine	8 hrs.
5.	Skull	8 hrs.

2. Clinical experience/supervision section (individuals must complete either A or B below).

A. The individual must complete 3 months of clinical training during which time they may perform X-ray examinations only under direct supervision. *competence*

- (1) Direct supervision shall be performed by a Tier II operator or a Tier I operator with *2* years experience. *as stated in Appendix #1* *2*
- (2) The individual shall utilize proper procedure as indicated in Appendix J.

(3) The individual shall be evaluated on procedure performance and competency on forms provided by the Department for each of the examinations listed in Appendix I.

(4) Additional probationary training shall be obtained, as necessary, in order to acquire and demonstrate competency of all Tier I examinations.

Or:

B. Individuals must complete at least 120 hours of clinical training and demonstrate competency for all Tier I examinations at a facility where there is routinely 50 or more Tier I X-ray examinations performed per week and complete an additional three month probationary training period as outlined in number A of this part.

(1) Direct supervision shall be performed by a Tier II operator or a Tier I operator with 5 years experience.

(2) The individual shall utilize proper procedure as indicated in Appendix J.

(3) The individual shall be evaluated on procedure performance and competency on forms provided by the Department for each of the examinations listed in Appendix I.

(4) Upon completion of 120 clinical hours and demonstration of competence for all Tier I examinations:

a. Individuals will be on a 3 month probationary training period where they may independently perform all Tier I examinations.

b. A Tier II operator, or radiologist must evaluate films on a weekly basis and give feedback on any needed improvements.

1. All films, including repeat and waste films, must be kept for evaluation.

2. Evaluation must be done on forms supplied by the Department.

NDAC 33-10-06
APPENDIX I

Specific examinations that are allowed in the scope of practice for Tier I operators.

Chest:	PA, lateral, decubitus
Ribs:	AP, oblique
Abdomen:	KUB, upright abdomen
Hand & fingers:	PA, lateral, oblique
Wrist:	PA, lateral, oblique
Forearm:	AP, lateral
Elbow:	AP, lateral
Humerus:	AP, lateral
Shoulder:	AP internal & external rotation
Clavicle:	AP, AP axial
Pelvis:	AP
Hips:	AP, Frog leg lateral, cross-table lateral
Femur:	AP, lateral
Knee:	AP, lateral
Tibula-Fibula:	AP, lateral
Ankle:	AP, lateral, obliques
Foot & toes:	AP, lateral, obliques
Sinuses:	Water's, lateral
Skull:	AP/PA, lateral
Facial bones:	PA, lateral
C-spine:	AP, lateral, odontoid (not trauma), swimmer's (not trauma)
T-spine:	AP, lateral, swimmer's (not trauma)
L-spine:	AP, lateral, L5-S1 lateral

Any situation deemed an emergency and requiring a Tier I operator to conduct procedures not specifically listed above requires a written order from an individual listed in Part 3 of Appendix G and direct supervision from the individual ordering the examination.

NDAC 33-10-06
APPENDIX J

X-ray Procedure and Image Competency Criteria

An individual must perform at least three examinations prior to requesting a competency evaluation for each of the limited scope examinations listed in Appendix I. The three preevaluation examinations may be actual or simulated. The evaluation shall be documented on State Form SFN #.... To pass a competency evaluation, the individual must receive an acceptable rating in each of the criteria listed below.

1) At a minimum, the following criteria must be evaluated during a procedure and image competency evaluation.

- A. Select appropriate film size
- B. Select appropriate technique
- C. Use correct source-to-image distance
- D. Establish proper direction of central ray
- E. Execute proper patient position
- F. Collimate if appropriate
- G. Provide gonadal shielding if appropriate
- H. Use correct film markers
- I. Give proper patient instruction
- J. Place patient information correctly on the film
- K. Complete examination in an acceptable time limit
- L. All anatomical parts included on the film
- M. Correct positioning of anatomical part
- N. Appropriate contrast
- O. Adequate density
- P. Correct use of right and left markers
- Q. Proper accessory markers as needed
- R. No visible motion
- S. Patient information correct and clearly visible

DEFINITIONS

- Allied Health: Occupations of medical personnel who are not physicians and are qualified by special training to undergo cross-training into x-ray as a Tier I operator. Refer to Appendix G for specific qualifying professions.
- Direct Supervision: Requires direct observation and observer must be in the room during the time the X-ray image is obtained.
- Tier I Operator: Any individual who has completed the necessary didactic and clinical training required to perform limited scope X-ray procedures.
- Tier II Operator: An individual who is American Registry of Radiologic Technologists (ARRT) or American Registry of Chiropractic Radiologic Technologists (ARCRT) board certified, board eligible, or has the equivalent educational and clinical training.
- Board Certified: An individual who has completed an accredited school in Medical Radiography or Chiropractic Radiography and has passed a national registry examination.
- Board Eligible: An individual who is eligible to take a national registry examination in Radiologic Technology or Chiropractic Radiologic Technology.