1. IDENTIFICATION

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<tr>
<th>Position No.</th>
<th>Job Title</th>
<th>Supervisor’s Position</th>
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<tbody>
<tr>
<td>10-11958</td>
<td>MEDICAL RADIATION TECHNOLOGIST/MAMMOGRAPHER</td>
<td>Manager Diagnostic Imaging and Services</td>
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<tr>
<th>Department</th>
<th>Division/Region</th>
<th>Community</th>
<th>Location</th>
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<tr>
<td>Health</td>
<td>Diagnostic Imaging and Services</td>
<td>Iqaluit</td>
<td>Qikiqtani General Hospital</td>
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Fin. Code: 10643-01-2-235-1000000-01

2. PURPOSE

Main reason why the position exists, within what context and what the overall end result is.

Under the supervision of the Manager, Diagnostic Imaging, the Technologist:

As a primary role, provides the service of the Mammography program with adherence to the Code of Ethics and the Standards of Practice of the Canadian Association of Medical Radiation Technologists (CAMRT) and the Canadian Association of Radiologists (CAR). This requires the expertise to fulfill all the important skills sets such as positioning, film interruption, quality assurance and quality control for film and processing requirements, equipment and processor maintenance. Mammography Certification is required.

Provides general radiological responsibilities including some specialized fluoroscopy studies such as hysterosalpingograms and voiding cystourethograms. These performed as well with adherence to the Code of Ethics and the Standard of Practice of the Canadian Association of Medical Radiation Technologists (CAMRT) and the Canadian Association of Radiologists (CAR).

As required, provides, holter monitor, event recorder and electrocardiogram services.

Produces quality images for the referring physician to view and the radiologist to report, in a safe and efficient manner employing the ALARA (as low as reasonably achieved) principle for timely diagnosis and treatment of patients.

Performs general and mammography darkroom functions.

Performs clerical work associated with the Diagnostic Imaging Department.

Assists with the basic maintenance of the general radiological, mammography and EKG equipment.

Assists in the planning and performance of Radiology and Mammography clinics.

Participates in in-house education.

Is available as a resource to the nurses in the Community Health Centres.
3. SCOPE

Describe the impact the position has on the area in which it works, or if it impacts other departments, the government as a whole, or the public directly or indirectly. How does the position impact those groups/individuals, the organization and/or budgets? What is the magnitude of that impact?

This position is located at the Qikiqtani General Hospital in Iqaluit, Nunavut, serving a population of 7,000 (plus) locally as well as 11 outlying communities with a catchment population of ~15,000.

Reporting to the Manager, Diagnostic Imaging, the Medical Radiation Technologist is part of a 7 member team, instrumental in providing services to the Qikiqtani General Hospital and Territory of Nunavut.

The scope of this multi-discipline position fulfills all general radiology, fluoroscopy and mammography requirements, in the absence of an on site Radiologist, by using a variety of equipment. Some specialized Diagnostic Radiological exams, Holter Monitor, cardiac Event Recorder and electrocardiogram services are also provided to the QGH and the Territory.

The incumbent consults with the physicians and other medical staff as well as providing radiological and mammography technical expertise and support to the nursing staff in the outlying committees.

The incumbent must be able to utilize different imaging modalities and processing equipment.

Quality Assurance and regular equipment maintenance is performed in the department on a regular basis on general radiological, mammography and EKG equipment.

All x-rays, mammograms and ultrasounds from the Baffin Region are processed and filed in the Diagnostic Imaging Department with original reports filed in the Health Records Office.

This position impacts on the excellence of patient care, treatment and diagnosis provided by the healthcare team.

Due to the remoteness of the Qikiqtani General Hospital from major referral centres, the incumbent must have a thorough and comprehensive understanding of Radiology, Mammography (including specialized positioning requirements), ECG, Holter monitor and Cardiac event equipment plus equipment maintenance and repair.

These services are provided Monday to Friday from 08:30-17:00 hours. Services required after regular working hours and during the week-ends are covered on an “on-call” (standby) basis shared by the staff Technologists.

4. RESPONSIBILITIES

Describe major responsibilities and target accomplishments expected of the position. List the responsibilities that have the greatest impact on the organization first and describe them in a way that answers why the duties of the position are being performed. For a supervisory or management position, indicate the subordinate position(s) through which objectives are accomplished.

Production of Radiographs:

The Technologist/Mammographer:

- Produces quality radiographic images in accordance with Safety Code 20A and Safety Code 33 of the Radiation Protection Bureau of Health Canada, the Code of Ethics and Standards of Practice of the CAMRT (Canadian Association of Medical Radiation Technologists) and of the CAR (Canadian Association of Radiologists).
- Prepares the treatment area by positioning the x-ray tube, setting the appropriate exposure factors and gathering the necessary supplies, prior to performing the x-ray examinations requested by the Medical staff.
- Instructs the patient on all the required positions for the requested examination in accordance with the Radiology Procedure Manual.
- Is adaptable and flexible in the required routines according to the patient's capabilities.
- Takes the initiative to provide special or added views necessary to aid in the diagnosis, without the direction of an on-site radiologist.
- Consults with the ordering Physician or the Doctor on-call regarding unexpected atypical findings.
- Ensures that the radiographs meet all medico-legal requirements.
- Ensures that all procedures are carefully explained, the patient understands the possible risks and signs the consent form prior to proceeding with any invasive procedure or using contrast media for exams, such as an Intravenous Pyelogram.
- Notifies physician/nursing staff immediately, if a patient's pathological or traumatic condition requires immediate medical attention or if continuing the procedure jeopardizes everyone's safety.
- Provides radiological services to other areas in the hospital, i.e. by using a portable x-ray machine in the O.R., various wards, or the morgue as required.
- Assists the visiting Radiologist, quarterly, in specialized radiological procedures, i.e. setting up the treatment area, preparing contrast media, syringes, etc., to be used in the procedure, assisting in setting up sterilized trays.
- Assist the visiting Radiologist, quarterly, by providing specialized Mammography views for specialized cases.
- Performs special diagnostic procedures in accordance with the protocols regarding Contrast Media and the proper response to possible adverse reactions to ensure patient safety. Maintains sterile techniques throughout the procedure as required.
- Ensures the emergency drug box is complete and up-to-date.
- Selects, prepares and draws up the appropriate amount of contrast media using sterile techniques.
- Documents and prepares for adverse reactions; if occurrence, calls the medical staff STAT.
- Ensures a physician injects the contrast and remains nearby for a minimum of 15 minutes post injection. Completes an incident report, if a reaction occurs, documenting all possible risks within the department or with any procedural routines.
- Follows universal precautions for isolation and for Operating Room portable cases.
- Maintains the equipment and reports any malfunctions to the Diagnostic Imaging Manager.
- Completes required forms and immediately reports all incidents and any known possible risks to the Diagnostic Imaging Manager.
- Maintains equipment in safe and operative condition, reporting any malfunction to the Manager of Diagnostic Imaging.
- Recommends possible changes or additions to departmental policy and procedures manual.
- Assumes the responsibilities of manager in his/her absence, as requested.
- Works a rotational standby schedule, outside of regular hours of work, with equal sharing of statutory holiday coverage.

**Production of Mammograms:**

- Performs Mammograms as required by the medical staff according to established procedure and guidelines for breast imaging as recommended by the Canadian Association of Radiologists (CAR).
- Assesses which views are appropriate in the absence of an on-site radiologist.
- Reviews previous mammograms if available.
- Interviews patient/client for present and previous pertinent medical history.
- Explains the procedure to the patient/client and make the patient/client feel at ease.
- Selects the exposure factors appropriate to the examination
- Applies compression to the breast.
- Administers the radiation exposure.
- Assesses the film for the need of further alternate views to be done in the absence of a on-site radiologist.
- Documents films for the radiologist.
• Prepares and sends films out to the Radiologist for interpretation.

**Radiation Protection:**
The Technologist/Mammographer must be knowledgeable of and consistently make use of good radiation protection methods and techniques. By doing so she/he ensures adequate protection for himself/herself, for the patient/client and his/her family and for the public. To perform this function, the technologist must:

- Determine the possibility of pregnancy in women of child bearing age and inform the physician before performing the requested procedure if the patient/client is pregnant.
- Utilize radiation protection methods, devices and most cautious techniques. When possible, choose appropriate exposure factors (e.g. high KVP) to decrease entrance does.
- Use the ALARA Principle (As Low As Reasonable Achievable) radiation exposure.
- Demonstrates compliance with all safety standards set up by the Radiation Protection Bureau in Ottawa to guarantee the safety of all patients and staff attending to or working in the department.
- Wears a radiation film badge which is sent to Ottawa every three months to be read determining the amount of radiation received.

**Patient Care:**
The Technologist/Mammographer:

- Must be sensitive to cross-cultural differences, communicate effectively and be able to detect subtle changes in the patients’ condition.
- Must be able to work well under pressure and react quickly in an emergency situation. To do this function, the technologist must ensure patient rights are preserved and attempt to fulfill the patients needs as much as possible.
- Communicates with the patient, to determine the possibility of pregnancy whether the patient followed the preparation instructions necessary for the x-ray and to ensure that patient understands the procedure.
- Must safely handle critically ill patients and request help from other members of the healthcare team as necessary.
- Collaborates with nursing and other health care professionals as necessary.
- Assists patient onto and off of the imaging tables.
- Informs the patients or nursing staff of any post procedure instructions and care.
- Recognizes a patient in distress or in an emergency situation-know the emergency protocols of the hospital and initiate appropriately.
- Provide basic aid and CPR as required.
- Maintain the emergency cart.
- Helps administer oxygen and medications as necessary.
- Ensures that restraints and immobilization devices are used properly and only in the appropriate situations and circumstances.
- Documents incidents, reactions and medications given.

**Community Health Centre Resource:**
The Technologist/Mammographer:

- Advises the radiology assistant and/or nursing staff, in the Community Health Centres on x-ray procedures by phone when necessary.
- Orientates the Community health Centre nursing staff within the Territory with a basic knowledge of x-ray procedures and functions, developing film, and radiation protection measures, by explaining the use and function of radiology equipment and examinations and reviewing the teaching file.
- Provides radiographic resource to staff and quality assurance tests on community x-ray equipment when visiting the community doing mammograms.

**ECG, Holter Monitor and Cardiac Event Recorder:**

- Performs and records ECG’s, Holter Monitor and Cardiac Event Recorder studies as required by Medical Staff, in the x-ray department or wherever required.
- Sends out Holter Monitor and downloads Cardiac Event recorder for reading, to the cardiologist, upon return from the patient.
- Downloads EKG’s weekly to the cardiologist for reading.

**Quality Assurance:**
The Technologist must actively participate in the departmental quality assurance program. To perform this duty, the Technologist/Mammographer must be able to.
• Analyze, rejects or repeat films and rates and document.
• Monitor, graph and analyze processor sensitometer strips and document.
• Perform phantom test on mammogram machine daily, analyze document.
• Perform compression tests on mammogram machine.
• Troubleshoot radiographic and processing equipment.
• Perform examination audits (monitor volume and critical indicators).
• Perform image audits and Health Centre film critique audits.
• Perform film screen contact tests.
• Perform safelight tests.
• Perform lead apron shielding tests with fluoroscopy.

Office/Administrative Responsibilities:
When not busy with a patient, the Technologist/Mammographer assists in clerical work associated with the Diagnostic Imaging Department by:
• Updating patient’s files.
• Records examinations.
• Processing x-ray film to be couriered to Diagnostic Imaging Consultants (Radiologist) in the most efficient manner possible when physicians require an urgent report.
• Preparing films, including previous applicable films to be transported to Diagnostic Imaging Consultants (Radiologists) twice a week.
• Distributing reports to referring physicians.
• Filing films along with official reports upon receipt from the Radiologists.
• E-mailing digital copies of films, when feasible, to specialists in the south.
• Arranging for films to be sent to Health Facilities in the South as requested by patient’s physicians.
• Receiving and sorting mail.
• Purging patient’s files as necessary.

Processing Radiographs:
• Cleaning of cassettes and refilling the cassette with film.
• Refilling the film bin with the appropriate films, as required.
• Ordering the supplies for the department.
• Monitor graphing and analyzing processing sensitometer strips.

5. KNOWLEDGE, SKILLS AND ABILITIES
Describe the level of knowledge, experience and abilities that are required for satisfactory job performance.
Knowledge identifies the acquired information or concepts that relate to a specific discipline. Skills describe acquired measurable behaviors and may cover manual aspects required to do a job. Abilities describe natural talents or developed proficiencies required to do the job.
These requirements are in reference to the job, not the incumbent performing the job.
A diagnostic Imaging Department with no on-site Radiologist places great demands on the ability of the individual to work independently and provide expertise beyond the normal scope of duties. The technologist must be able to work unsupervised, use independent judgement, ingenuity and initiative and have:
• Knowledge of accepted Radiology Positioning and Procedure Manual.
• Mammography certification and expertise is mandatory.
• Knowledge of the CAMRT and CAR standards of practice.
• The ability to safely and efficiently operate the Radiographic, Mammography and the Portable units as required, in order to produce quality radiographs for the purpose of interpretation by a Radiologist for diagnosis to aid in the client’s treatment.
• Knowledge to perform ECG, Holter Monitor and Cardiac Event Recorder studies.
• Knowledge of film critique, general duty radiology, mammography, special procedures, pathology and medical terminology.
• Knowledge of processor maintenance, for general duty radiology and mammography, dark room
use, and storage of toxic chemicals with preventative measures.

- Knowledge of radiation hazards and ensure the department’s practice of radiation safety precautions is adhered to.
- The ability to communicate effectively in both verbal and written format, with medical or non-medical personnel and all clients, in order, to contribute to the effective and efficient operation of the Diagnostic Imaging Department.
- The ability to function as a contributing member of the multi-disciplinary team as well as independently, due to the requirement of working on an “on-call” basis after regular working hours and in the absence of an on-site Radiologist.
- The ability to use good judgement in making quick and correct decisions in a professional manner, especially during emergency situations or when dealing with difficult or distraught clients, is a necessary requirement as there is no radiologist on site.
- The ability to recognize atypical findings and initiate the appropriate action (contact the referring Physician immediately). Failure to do so, directly impacts upon the care, treatment and ultimate morbidity of the patient.
- Must have or be willing to obtain CAMRT Mammography Level 1 and 2 or equivalent and obtain continuing education credits to maintain accreditation standards.
- Must be sensitive to patient's/client's different needs and use independent judgement in view of the fact that there is no Radiologist on-site.
- Knowledge of and practice safety precautions when lifting and moving heavy patients and equipment.

This level of knowledge is acquired by:

- Successful completion of a 3 year accredited and recognized college program in the discipline of medical radiological technology OR
- Successful complete of a degree in medical radiation technology.
- Specialized on-site training at an accredited Breast Imaging Centre.
- A minimum of 2 years postgraduate experience practising mammography.

The Technologist must be a current registered member in good standing with the CAMRT (Canadian Association of Medical Radiation Technology).

The incumbent must have annual certification in CPR and WHIMS.

6. WORKING CONDITIONS

List the unavoidable, externally imposed conditions under which the work must be performed and which create hardship for the incumbent. Express frequency, duration and intensity of each occurrence in measurable time (e.g. every day, two or three times a week, 5 hours a day).

Physical Demands

<table>
<thead>
<tr>
<th>Indicate the nature of physical demands and the frequency and duration of occurrences leading to physical fatigue or physical stress.</th>
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<tbody>
<tr>
<td>Lifting and positioning of clients of all sizes. Everyday periodically throughout the day.</td>
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<td>Pushing and manoeuvring a heavy mobile unit -3-4 times/week, more frequently when travelling to communities to do mammography.</td>
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<tr>
<td>Working with ergonomically incorrect equipment.—Daily.</td>
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<tr>
<td>Carrying heavy cassettes and files. Daily 7.5 hours per day.</td>
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<tr>
<td>Wearing of a lead apron periodically throughout the 7.5 hour day.</td>
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<tr>
<td>Standing and walking on hard floors 7.5 hours/day.</td>
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<tr>
<td>Bending and lifting files, stock and storage of same-everyday periodically throughout the day.</td>
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</table>
Position requires “on call” services, after regular department scheduled hours during the week and on week-ends. Rotational call shared with 2 other staff. Occurs more frequently when other staff are on vacation or days off.

Recall to work at any time, for various lengths of time and as often as deemed necessary by the physician on call. Rotational call shared with 2 other staff. Occurs more frequently when other staff are on vacation or days off.

Sleep disruption and sleep deprivation. Must report to work daily even when on call. Rotational call shared with 2 other staff. Occurs more frequently when other staff is on vacation or days off.

Environmental Conditions

Indicate the nature of adverse environmental conditions to which the jobholder is exposed, and the frequency and duration of exposures. Include conditions that increase the risk of accident, ill health, or physical discomfort.

- Continuous risk of exposure to infectious diseases-ongoing.
- Possible injury from disturbed patients-occasionally.
- Periodic exposure to toxic chemicals, e.g., when replenishing processor chemicals, which could be a possible contributing factor to darkroom disease in some individuals-daily.
- Patient/staff safety re: regular exposure to ionizing radiation-periodically when patient restraint is needed.
- Constant exposure to other forms of radiation, e.g., computer screens-daily 3-5 hours.
- Travelling in small airplane to remote community.
- Encountering weather conditions while travelling and providing mammography services.
- The Technologist may encounter travel delays impacting family life-occasionally.

Sensory Demands

Indicate the nature of demands on the jobholder’s senses. These demands can be in the form of making judgments to discern something through touch, smell, sight, and/or hearing. It may include concentrated levels of attention to details though one or more of the incumbents’ senses.

- Constant exposure to equipment noise-daily 7.5 hours.
- Periodic exposure to toxic fumes from chemicals, possibly causing headaches, asthma, etc.-Daily.
- Potential for eyestrain due to working in a dimly lit room daily.
- Palpitating breast lumps-daily when doing mammograms.
- Exposure to trauma-occasionally.
- Exposure to violent and or intoxicated patients-occasionally.

Mental Demands

Indicate conditions within the job that may lead to mental or emotional fatigue that would increase the risk of such things as tension or anxiety.

- Increased responsibility results from working in a remote area without a radiologist on site. The technologist may periodically be called and consulted by physicians around patient diagnosis-daily 2-3 occurrences.
- Share “on-call” duty. Rotational call shared with 2 other staff. Occurs more frequently when staff are on vacation or days off.
- Exposure to emotionally difficult situations (trauma or death)-occasionally.
- Dealing with patient anxiety-daily.
- Performing very personal examinations-daily.
- Occasionally, sleep disruption and sleep deprivation may occur. The incumbent is expected to behave in a cheerful, exact and professional manner at all times. Rotational call shared with 2
other staff. Occurs more frequently when staff are on vacation or days off.

- Must be able to think ahead and anticipate problems-constantly
- Impact on family life due to travelling and when on call, while providing radiological services. Rotational call shared with 2 other staff. Occurs more frequently when staff are on vacation or days off.
- Lack of control over work pace-high service demand-daily.

7. CERTIFICATION

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<th>Employee Signature</th>
<th>Supervisor Title</th>
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<tr>
<th>Printed Name</th>
<th>Supervisor Signature</th>
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<tr>
<th>I certify that I have read and understand the responsibilities assigned to this position.</th>
<th>I certify that this job description is an accurate description of the responsibilities assigned to the position.</th>
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<tr>
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I approve the delegation of the responsibilities outlined herein within the context of the attached organizational structure.

8. ORGANIZATION CHART

Please attach Organizational Chart indicating incumbent’s position, peer positions, subordinate positions (if any) and supervisor position.

“The above statements are intended to describe the general nature and level of work being performed by the incumbent of this job. They are not intended to be an exhaustive list of all responsibilities and activities required of this position”. 