Radiation Regulations in Ontario

the CT designation process

OAMP Education and Networking Session

October 2nd, 2024

1200 - 1300

Outline

- Regulatory review
  - Healing Arts Radiation Protection Act (HARPA)
  - Bill 160, Strengthening Quality and Accountability for Patients Act (2017)
    - Schedule 9, Oversight of Health Facilities and Devices Act (OHFDA)
  - Bill 60, Your Health Act (2023)
- CT Designations in 2024
  - Overview
  - *Process*
  - Perspective from a radiation oncology physicist
  - Perspective from an imaging physicist

Background

- The application of radiation is governed by a complex system of overlapping legislative regimes
- Healing Arts Radiation Protection Act (HARP Act, HARPA) is the principal provincial regime
  - First introduced in 1980
  - Regulates:
    - ordering of x-ray procedures
    - installation of x-ray machines
    - operation of x-ray machines
    - accidents involving x-ray machines
    - . . .

Healing Arts Radiation Protection Act

Has not sufficiently evolved with changes in medicine

- Captures conventional radiographic, fluoroscopic, computed tomography, and dental equipment
  - regs. apply to x-ray components (+ *photographic* QC)
  - no consideration for detection devices, image processing, or display
  - very limited utility re: CT
- Does not acknowledge other imaging modalities (magnetic resonance imaging, ultrasound, nuclear medicine)
- No potential for accommodating new technology, or usage of other energy applying and detecting medical devices (EADMD)

Updating HARPA?

- it is ***not possible*** to broaden the scope of HARPA based on its current constitution
- new legislation was required:

Legislative Assembly of Ontario

Assemblée législative de l'Ontario

2ND SESSION, 41ST LEGISLATURE, ONTARIO
66 ELIZABETH II, 2017

Bill 160

(Chapter 25 of the Statu

An Act to amend, repeal
in the interest of strengthening quali

Dec. 2017

SCHEDULE 9
OVERSIGHT OF HEALTH FACILITIES AND DEVICES ACT, 2017

A regulatory system is established for community health facilities and energy applying and detecting medical devices.

The position of executive officer for community health facilities and energy applying and detecting medical devices is created and the functions and responsibilities of the executive officer are provided for.

Provision is made for inspecting bodies to carry out functions with respect to community health facilities.

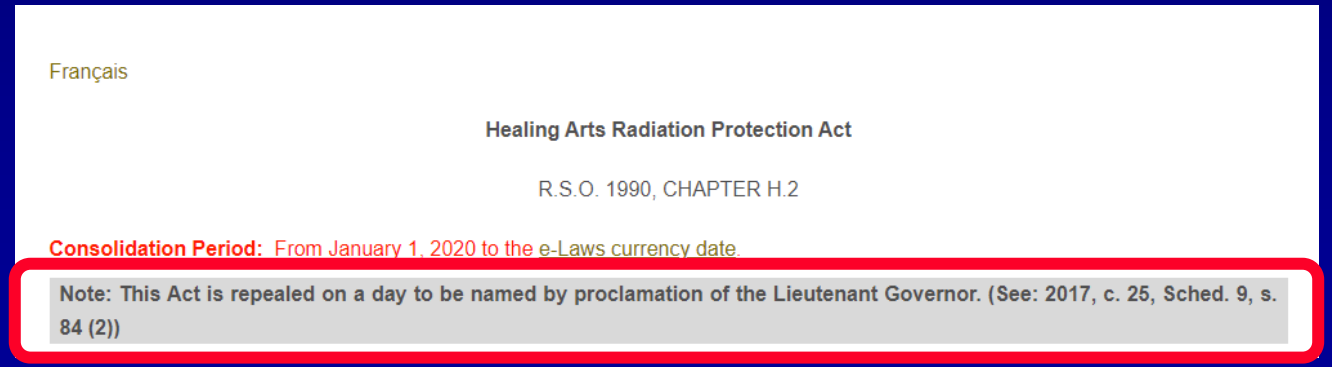
A wide range of enforcement tools, including compliance orders, cessation orders and administrative monetary penalties are provided for.

Provision is made for the Minister of Health and Long-Term Care to provide funding for some community health facilities and inspecting bodies and to take action where payment should not have been made.

Oversight of Health Facilities and Devices Act

- OHFDA promised flexibility for EADMD regulation through a licensing framework
- EADMD was to be prescribed in regulation with appropriate, contemporary safety/quality standards
  - may refer to external (national/international) standards reflective of industry best practices
  - allow for the most up-to-date standards to be adopted

Healing Arts Radiation Protection Act
Medical Radiation Technology Act
Ontario Mental Health Foundation Act
Independent Health Facilities Act
Private Hospitals Act



Français

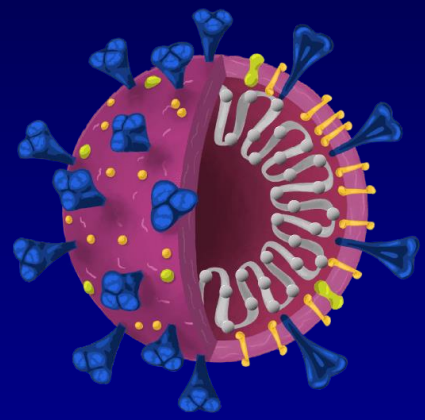
Healing Arts Radiation Protection Act

R.S.O. 1990, CHAPTER H.2

Consolidation Period: From January 1, 2020 to the e-Laws currency date.

Note: This Act is repealed on a day to be named by proclamation of the Lieutenant Governor. (See: 2017, c. 25, Sched. 9, s. 84 (2))

2018 to 2021. . .



New Landscape – 2

Bill 60

(Chapter 4 of the Statutes of Ontario, 2023)

An Act to amend and enact various Acts with respec

Healing Arts Radiation Protection Act

4 (1) Clause 6 (1) (a) of the *Healing Arts Radiation Protection Act* is repealed and the following substituted:

(a) a legally qualified medical practitioner or another person prescribed by the regulations;

(2) Clause 6 (1) (g) of the Act is repealed and the following substituted:

(g) a member of the College of Nurses of Ontario who holds an extended certificate of registration under the *Nursing Act, 1991* or another person prescribed by the regulations.

EXPLANATORY NOTE

This Explanatory Note was written as a reader's aid to Bill 60 and does not form part of the law. Bill 60 has been enacted as Chapter 4 of the Statutes of Ontario, 2023.

SCHEDULE 1
INTEGRATED COMMUNITY HEALTH SERVICES CENTRES ACT, 2023

The Schedule enacts the *Integrated Community Health Services Centres Act, 2023* and makes consequential and related amendments to several other Acts. The major elements of the Act are described below.

Part I sets out interpretive provisions that apply to the Act and the application of the Act.

Part II provides for the appointment of one or more Directors, who have various functions, duties and powers under the Act.

Part III provides for the licensing of integrated community health services centres and related matters. It provides a prohibition for establishing and operating such a centre without a licence. It also sets out the process for applying for licences, the considerations in issuing licences and the processes for the renewal, relocation or transfer of licences. Provisions are provided for orders by the Director to take control of a centre in certain circumstances and for the revocation, suspension or amendment of licences. It also sets out requirements on all licensees, including the requirement to comply with requirements under this Act and to comply with the applicable quality and safety standards.

Part IV establishes the rules that apply with respect to payments and financial accountability. It permits the Minister to pay for ion on charging e Minister or a aining access to ed services to a rvices centre. It payments, such

ppointed by the lies are charged afety standards. powers to issue

Part VI sets out a number of miscellaneous provisions, including provisions respecting service, the confidentiality of information and the liability of the Crown.

Part VII sets out offences under the Act and establishes the penalty for committing an offence. It also empowers the Attorney General to seek a restraining order for contraventions of section 4 or 29.

Part VIII sets out the power to make regulations under the Act.

Part IX provides for the repeal of the *Independent Health Facilities Act*, the revocation of the regulations made under that Act and the repeal of the *Oversight of Health Facilities and Devices Act, 2017*.

Part X sets out consequential and related amendments.

Part XI sets out the commencement and short title of the Act set out in the Schedule.

Missing Years (2021-2022): Progress!

2021-04 Government announced new “red tape and burden reduction measures” to minimize barriers on businesses

- commitment to enhance HARPA to “better enable innovation and the use of new and emerging technology”

2021-06 MOH solicited the public for legislative/regulatory amendments to HARPA that:

- can be implemented within the existing HARPA framework
- are within the scope of the government

→ OAMP responded

OAMP
Ontario Association of Medical Physicists

www.oamponline.net

300 March Road, Suite 202
Kanata, ON
K2K 2E2 CANADA
Tel: (613) 599-3491
Fax: (613) 595-1155

June 9, 2021

Mr. Robert Francis

Director, Strategic Policy
Ministry of Health
Government of Ontario

Dear Mr. Francis:

Thank you for the opportunity to submit recommendations to improve and enhance the Healing Arts Radiation Protection Act (HARPA).

The Ontario Association of Medical Physicists (OAMP) is a not-for-profit organization which provides the premier voice for physicists in medicine in Ontario. At this time, we represent approximately 100 physicists across the province. Our board of directors is a collection of clinical and academic subject experts in the application of radiation in medicine, from perspectives of both diagnostic imaging physics (radiology) and therapy physics (radiation oncology) and light-based therapy.

Medical physicists have played a significant role in the quality and safety of medical imaging in Ontario. Creation of the Healing Arts Radiation Protection (HARP) Act was motivated by the work of Dr. Harold Johns, a medical physicist, in 1979. In recent years, medical physicists have contributed to the discussion surrounding modernizing radiation protection regulation and legislation in the province. Dr. David Jaffray, also a medical physicist, co-chaired the 'Expert Panel to Enhance the Safety and Quality of Energy-Applying Medical Devices issued by Health Quality Ontario (HQO) in 2015 and chaired the 'Task Force for the Development of Standards for X-rays supported by the Ministry in 2018-2019. Members of the OAMP served on these panels/task forces as content experts.

The OAMP supports the six recommendations of the 'Expert Panel to Enhance the Safety and Quality of Energy-Applying Medical Devices and agree that, per recommendation 3.5, qualified medical physicists are a necessary component to the safety and quality of medical applications of radiation. The OAMP also supports the extension of the historical legislative approach to include 'detection' devices. Broadening the scope from energy-applying medical devices to energy-applying and detecting medical devices (EADMD), per the Oversight of Health Facilities and Devices Act (OHFDA), 2017. The modification toward a holistic approach of medical radiation use will promote quality in healthcare and reduce risk to patients, providers and the public. Although we favour this broader approach, the OAMP is cognizant of the Ministry's request and focused our current suggestions to those that we believe can be implemented within the existing legislative/regulatory framework. Each of these four specific recommendations are intended to reduce unnecessary regulatory burden, and permit innovation and the introduction of new, advanced technology while remaining safe and with high quality.

#	HARPA	Area for Improvement	OAMP Recommendation	Brief Rationale
1	R.S.O. 1990, c. H.2, s. 23	Improve the 'CT designation' process for applicants	Create explicit regulatory guidance documentation for hospitals and facilities. This would include a description of the requirements, process, criteria, contact information, etc.	No current, approved, documentation for hospitals/facilities is available on the ministry website. The designation process has contributed to considerable delays and project complications for x-ray facilities.
2	R.R.O. 1990, Reg. 543, s.1 R.S.O. 1990, c. H.2, s. 23	Definition of 'CT scanner'	Correct the definition of a CT scanner and the criteria for CT designation.	Many existing and new technologies fall incorrectly under the current definition, serving only to increase the regulatory burden on hospitals and facilities. This perspective is not consistent with the purpose, function, core capabilities, and intention of the imaging equipment, and is contradictory with the machine categories listed in Ministry documentation (viz. "Form 1 – X-ray Equipment Registration" [1782-53E (2018/08)]. The additional burden is not commensurate with risk, concern for health and safety, budgetary/need assessments under the Minister's mandate.
3	R.R.O. 1990, Reg. 543, s.3 (2)	Modernize radiation shielding methodology	Apply the shielding design, assessment and validation principles of the current, nationally and internationally recognized guidance document, NCRP Report No. 147 (2004). Retire those processes from 1976 (NCRP Report No. 49)	Hospitals/facilities are currently required to following the shielding methods of "Safety Code-20A." This aged reference utilizes methodology from National Council on Radiation Protection and Measurements (NCRP) Report No. 49 (1976). Many medical imaging technologies available today were not available 5 decades ago and are *not* included in the 1976 report (e.g., CT scanners, digital radiography, digital fluoroscopy). NCRP Reports No. 145 (2003) and No. 147 (2004) were issued to update Report 49 with a contemporary perspective and applied to modern existing systems and technology. It has been well documented that the 1976 methods applied significantly more shielding than necessary to create a safe radiation environment, serving to raise health care costs due to increased material thicknesses, addition of structural supports, construction delays, etc.
4	R.R.O. 1990, Reg. 543, s.2 R.R.O. 1990, Reg. 543, s.3	Allow hospitals/facilities to expedite the application and assessment for existing x-ray rooms without *any* material changes.	In circumstances where a new piece of equipment is purchased and there are no changes to the system, room layout or shielding considerations, an expedited process should be encouraged.	Requiring a new, complete application and its associated demands for simple replacements-in-kind is a considerable regulatory burden. Often, no changes with regards to shielding considerations in imaging facilities are required due to size and space limitations, e.g. physical layout in room, shielding design goal, occupancy in surrounding areas, no change in the existing shielding (walls/doors/windows/etc.). Requirements for a *change* in shielding in like-for-like renovations is extraordinarily rare.

Missing Years (2021-2022): Progress!

2021-07 MOH convened a panel of “Sector Experts” to review the submissions received from members of the public, manufacturers, and associations

2021-10 Following consultation, MOH decided on four targeted actions under HARPA that “will better enable the use of emerging technology while continuing to protect the safety of patients, workers and the public in the use of X-ray devices”

2021-2022 Update (1/4)

1. Regulatory amendment to Reg. 543 on shielding design methods

🎉 **no one thought this could happen** 🎉

- change was posted to the provincial registry in Dec. 2021 and Jan. 2022 to update the regulation
- in effect **July 1, 2022**

2. (1) Subsection 3 (2) of the Regulation is revoked and the following substituted:

(2) The barriers referred to in subsection (1) shall comply with the shielding standards contained in one of the following:

1. Appendix II (Shielding guides for diagnostic x-ray installations) of Safety Code-20A—X-Ray Equipment in Medical Diagnosis Part A: Recommended Safety Procedures for Installation and Use, revised in 1999 and published by Health Canada.
2. NCRP Report No. 147—Structural Shielding Design for Medical X-Ray Imaging Facilities, revised on March 18, 2005 and published by the U.S. National Council on Radiation Protection and Measurements.

- existing dose limits have been maintained

2021-2022 Update (1/4)

1. Regulatory amendment to Reg. 54

🎉 **no one thought this**

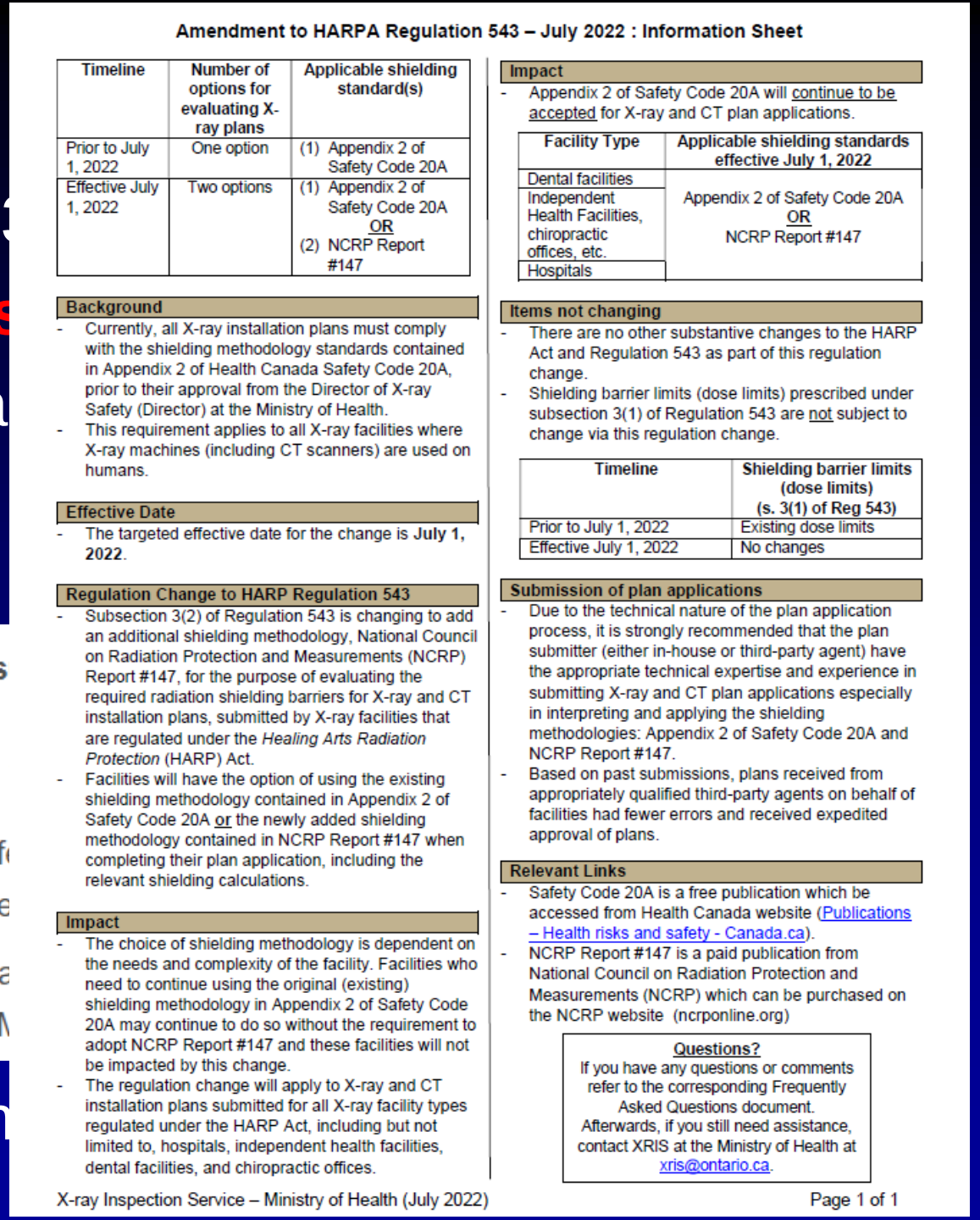
- change was posted to the provincia 2022 to update the regulation
- in effect **July 1, 2022**

2. (1) Subsection 3 (2) of the Regulation is revoked and the following s

(2) The barriers referred to in subsection (1) shall comply with the shielding

1. Appendix II (Shielding guides for diagnostic x-ray installations) of Saf
   A: Recommended Safety Procedures for Installation and Use, revise
2. NCRP Report No. 147—Structural Shielding Design for Medical X-Ra
   published by the U.S. National Council on Radiation Protection and M

- existing dose limits have been main



Amendment to HARPA Regulation 543 – July 2022 : Information Sheet

Timeline	Number of options for evaluating X-ray plans	Applicable shielding standard(s)
Prior to July 1, 2022	One option	(1) Appendix 2 of Safety Code 20A
Effective July 1, 2022	Two options	(1) Appendix 2 of Safety Code 20A OR (2) NCRP Report #147

Background

- Currently, all X-ray installation plans must comply with the shielding methodology standards contained in Appendix 2 of Health Canada Safety Code 20A, prior to their approval from the Director of X-ray Safety (Director) at the Ministry of Health.
- This requirement applies to all X-ray facilities where X-ray machines (including CT scanners) are used on humans.

Effective Date

- The targeted effective date for the change is **July 1, 2022**.

Regulation Change to HARP Regulation 543

- Subsection 3(2) of Regulation 543 is changing to add an additional shielding methodology, National Council on Radiation Protection and Measurements (NCRP) Report #147, for the purpose of evaluating the required radiation shielding barriers for X-ray and CT installation plans, submitted by X-ray facilities that are regulated under the *Healing Arts Radiation Protection* (HARP) Act.
- Facilities will have the option of using the existing shielding methodology contained in Appendix 2 of Safety Code 20A or the newly added shielding methodology contained in NCRP Report #147 when completing their plan application, including the relevant shielding calculations.

Impact

- The choice of shielding methodology is dependent on the needs and complexity of the facility. Facilities who need to continue using the original (existing) shielding methodology in Appendix 2 of Safety Code 20A may continue to do so without the requirement to adopt NCRP Report #147 and these facilities will not be impacted by this change.
- The regulation change will apply to X-ray and CT installation plans submitted for all X-ray facility types regulated under the HARP Act, including but not limited to, hospitals, independent health facilities, dental facilities, and chiropractic offices.

Impact

- Appendix 2 of Safety Code 20A will continue to be accepted for X-ray and CT plan applications.

Facility Type	Applicable shielding standards effective July 1, 2022
Dental facilities	Appendix 2 of Safety Code 20A OR NCRP Report #147
Independent Health Facilities, chiropractic offices, etc.	
Hospitals	

Items not changing

- There are no other substantive changes to the HARP Act and Regulation 543 as part of this regulation change.
- Shielding barrier limits (dose limits) prescribed under subsection 3(1) of Regulation 543 are not subject to change via this regulation change.

Timeline	Shielding barrier limits (dose limits) (s. 3(1) of Reg 543)
Prior to July 1, 2022	Existing dose limits
Effective July 1, 2022	No changes

Submission of plan applications

- Due to the technical nature of the plan application process, it is strongly recommended that the plan submitter (either in-house or third-party agent) have the appropriate technical expertise and experience in submitting X-ray and CT plan applications especially in interpreting and applying the shielding methodologies: Appendix 2 of Safety Code 20A and NCRP Report #147.
- Based on past submissions, plans received from appropriately qualified third-party agents on behalf of facilities had fewer errors and received expedited approval of plans.

Relevant Links

- Safety Code 20A is a free publication which be accessed from Health Canada website (Publications – Health risks and safety - Canada.ca).
- NCRP Report #147 is a paid publication from National Council on Radiation Protection and Measurements (NCRP) which can be purchased on the NCRP website (ncrponline.org)

Questions?
If you have any questions or comments refer to the corresponding Frequently Asked Questions document. Afterwards, if you still need assistance, contact XRIS at the Ministry of Health at xris@ontario.ca.

X-ray Inspection Service – Ministry of Health (July 2022)

Page 1 of 1

2021-2022 Update

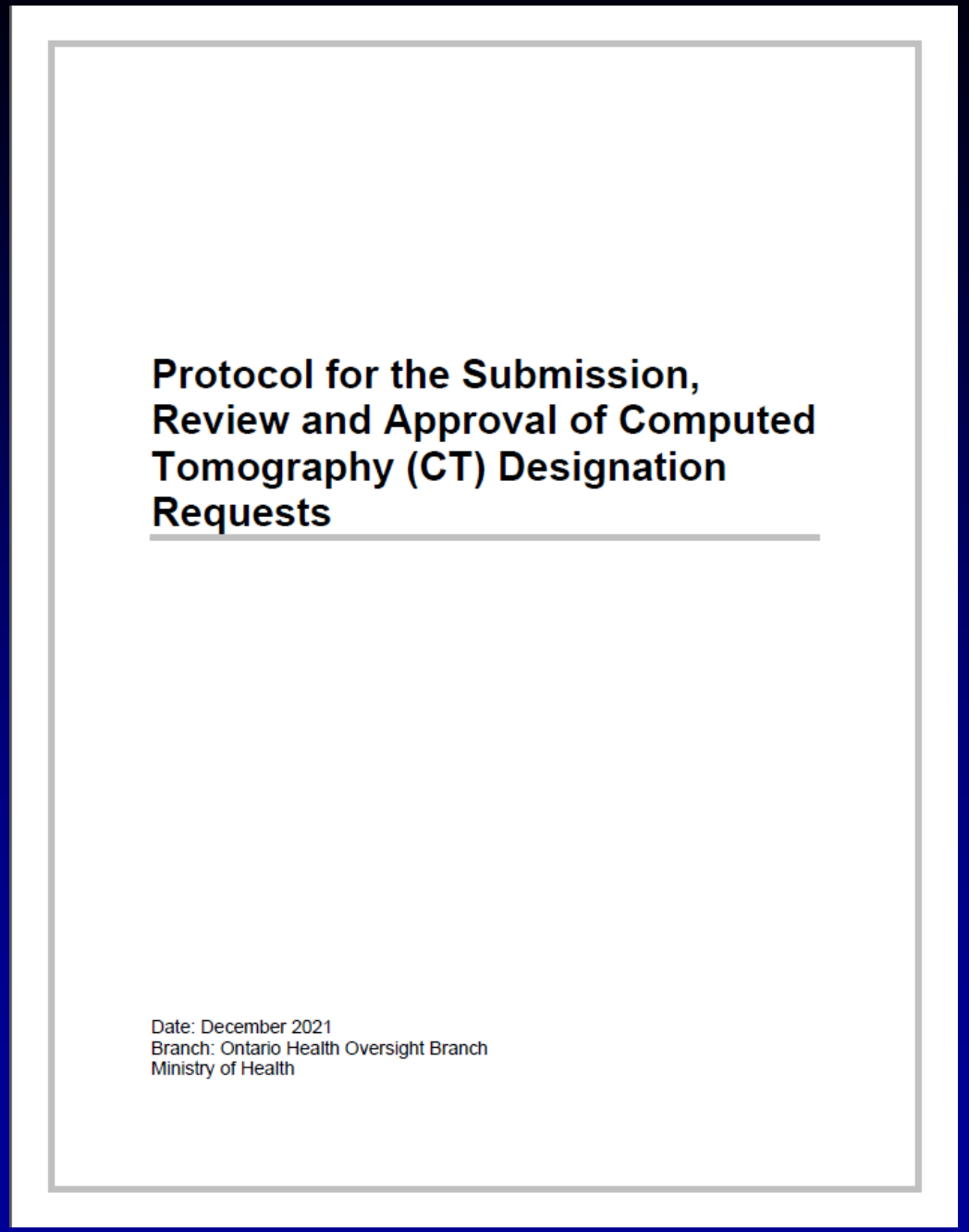
Clarifications to existing processes

2. Definitions of “owner” and “operator” and responsibility for lender and demonstration devices
   - Updated public-facing forms and pamphlets
   - Created guidance document
3. Simplified submission requirements for mobile devices
   - Updated guidance document

2021-2022 Update

4. “Streamline” CT designation process
   - “*The ministry committed to updating and clarifying guidance to streamline the computerized tomography (CT) designation process for hospitals, create certainty for approval timelines, and eliminate unnecessary requirements.*”

- Released December 2021
- Updated March 2024



Protocol for the Submission, Review and Approval of Computed Tomography (CT) Designation Requests

Date: December 2021
Branch: Ontario Health Oversight Branch
Ministry of Health

CT Designation Requests - Overview

- Application documents are straight-forward
- Templates are provided
- New installations
  - Business Case (“Appendix II”)
    A. Overview & Current Status
    B. Strategic Analysis
    C. Resource Analysis
    D. Capital Component Analysis
       → may require “Supplemental Capital Information” document (“Appendix IV”)
- Replacement Equipment
  - Simplified form (“Appendix III”) should certain conditions be met

CT Designation Requests - New Installations

Business Case (“Appendix II”)

A. **Overview & Current Status**
B. **Strategic Analysis**
C. **Resource Analysis**
D. **Capital Component Analysis**

CT Designation Requests - New Installations

Business Case (“Appendix II”)

A. Overview & Current Status

1. Outline reason for new/expanded CT service
2. Program and services (environmental scan, types of procedure, service volumes)
3. List CT scanners
4. Letter from the hospital (endorsed/signed by executive):
   - base hours of operation
   - confirm that the hospital will have a balanced budget (or plan to balance)
   - confirm no additional base budget implications
   - confirm that the CT will be purchased with previously secured funds
5. Description of the sponsoring hospital:
   - programs/services available
   - overall bed numbers
   - catchment area, etc.
6. “Unique” factors that would make this proposal critical for the community/stakeholders

CT Designation Requests - New Installations

Business Case (“Appendix II”)

B. Strategic Analysis

1. Impact analysis
   - Include target benefits
   - Future success measures
   - Dates for achievement
2. Impact on existing community service providers (e.g. IHFs) and other hospitals
3. List key assumptions and dependencies with other projects or initiatives
4. Infrastructure work (i.e. renovations or new construction)
5. Proposed “reach” of the CT services to other communities

CT Designation Requests - New Installations

Business Case ("Appendix II")

C. Resource Analysis

1. List all costs (start-up, one-time capital, and operating)
2. Financial plan addressing funding sources
3. Analysis of health HR impact, impact on other services, and utilization management strategy
   - ***Provide attestation that HR plan has been developed and implementable***
4. Hospital's fundraising strategy for capital and one-time start-up costs
5. Will the project require changes to current operational care model?

"Include a letter of support from Ontario Health (Cancer Care Ontario), if the equipment is part of its Radiation Equipment Replacement Grant for new or replacement / radiation therapy equipment"

CT Designation Requests - New Installations

Business Case (“Appendix II”)

D. Capital Component Analysis

1. Indicate if the equipment will be in the same room currently used for this purpose and there are no changes in the room size and configuration
   - **If response is “NO,” the hospital will be required to complete the “Supplemental Capital Information” document (“Appendix IV”)**
2. Confirm if the proposed equipment is replacement CT, PET-CT or radiation therapy equipment to be funded as part of OH-CCO’s Radiation Equipment Replacement Grant
3. Describe equipment and construction contract:
   - Separate, Turnkey, Managed equipment services (MES)

“Appendix II”(A., B., C., and D.) = simple and straightforward

“Appendix IV” *is not*

CT Designation Requests - New Installations

Supplemental Capital Information (“Appendix IV”)

- Scope of Work and Impact(s)
  - Spatial or functional impacts (e.g., displacement of staff/clinical programs and/or services)?
  - Need for a building permit
  - Proposed scope of work (structural, mechanical, electrical)
  - Staging/decanting required to accommodate the installation of the CT scanner?
- Space Requirements (e.g., area to demolish, area to be purchased/leased, area to be renovated, etc.)
- Design Standards (compliance with CSA Z8000, etc.)
- Design Documentation:

Please provide a copy of:

- Plans of the floors areas above and below proposed renovation/new construction location, with rooms labelled
- Proposed department boundaries
- Interdepartmental zones (staff, support, patients) with rooms labelled
- Interdepartmental circulation
- Horizontal and vertical circulation routes between zones
- Support spaces (mechanical / electrical spaces)
- Equipment placement
- Proposed renovation / new construction architectural drawings
- Proposed renovation / new construction Electrical drawings
- Proposed renovation / new construction Mechanical drawings
- Proposed renovation / new construction drawings – other disciplines as required
- Design Briefs for all disciplines

CT Designation Requests - New Installations

Supplemental Capital Information ("Appendix IV")

- Breakdown of Costs:

Cost Item	***Cost dollars***	***Notes***
Hard Construction Costs (HCC)		*Includes built-in equipment*
Ancillaries (consultants)		*Use 23.1% of HCC unless otherwise calculated by cost consultant*
Post Contract Contingencies		*5% of Hard Construction Costs*
Loose Equipment Costs		*Excludes built-in equipment*
Other Components/Costs		
HST (before rebate)		
HST (rebate)		
Total		

- Project Schedule:

Activity	**Start Date**	**End Date**	**# of Days**
Planning			
Design			
Tender			
Award of contract			
Construction			
Occupancy			
		Total # of Days	

- Attestations: Occupational Health & Safety, Infection Prevention and Control (IPAC), and Accessibility (AODA)

CT Designation Requests - Replacement

Replacement of CT Scanner Template (“Appendix III”)

- Confirm:
  - no cost to the ministry for the installation, construction/renovation, or purchase of this device
  - same room currently used for this purpose (no changes in size/config.)
  - no change in access to patient care or any of the parameters approved in the original business case

- will the CT equipment to be replaced will be de-commissioned once the new equipment is installed?
- will the equipment be located in a regional cancer centre?
- rationale for replacement

CT Designation Requests - Summary

- Application documents are straight-forward
- Follow templates as provided

- New installations
  - Business Case (“Appendix II”)
    A. Overview & Current Status
    B. Strategic Analysis
    C. Resource Analysis
    D. Capital Component Analysis

    → may require “Supplemental Capital Information” document (“Appendix IV”)
- Replacement Equipment
  - Simplified form (“Appendix III”) should certain conditions be met

Thoughts/Recommendations - RO Physics

- Radiation therapy facilities have two very different types of 'CTs'
  - Imaging only devices – CT simulators, C-arms, etc
  - On-board kV imagers on linear accelerators

- There were submissions from multiple radiation therapy organizations at the time of the updates to the Act to have on-board imagers on CNSC licensed linear accelerators exempt from the CT designation and XRIS process
  - Would not be used for diagnostic purposes
  - Are housed in rooms shielded for MV energies

Thoughts/Recommendations - RO Physics

- Business case
  - Need to provide letter of support from OH-CCO
    - Funding letter, or letter of support – either can work
  - Rest of the business case is fairly straightforward, make it clear that this is for radiation therapy imaging
  - Except... Appendix IV for new installation or major renos

Thoughts/Recommendations - RO Physics

- Streamlined process?
  - Ministry says applications will be processed within 60 days

- Tips
  - XRIS will accept submissions for shielding approval in parallel with designation application
  - Members of RSO community of practice have shared business case templates between centres, saves on the need for creativity
  - Officially, the machine cannot be pushed in until the letter of designation and XRIS approvals are in hand

Thoughts/Recommendations - Imaging Physics

- This is an *operational* process and should be led by an operational employee
- Notably, “Appendix IV” requires input from multiple members/areas of the hospital
- example OH/MOH “Appendix IV” inquiries:
  - “please ensure that the following IPAC technologies are included: Off-Set Drain Sinks”
  - “the use of the following IPAC technologies are required to be included in planning. . .”
  - “where these patients will change and access washrooms”
  - “where will they receive contrast injections, etc.”
  - “please confirm if sufficient HVAC air cooling is provided with the addition of the new CT suite and included in the cost estimate”
  - “please confirm if any structural reinforcing is required for the installation of the CT equipment.”
  - “please provide staging diagrams.”
  - “the drawing shows the contractor travel path through the Exam Room Corridor. Please consider a less intrusive path of travel for all contractor work”
  - “the existing air handling system does not have any system redundancy in place. Please confirm that it is not required with the addition of the new CT suite.”