



Michigan Department of Licensing and Regulatory Affairs
Radiation Safety Section
Application for a Radiation Shielding Plan Review



Please complete and submit this form with your radiation shielding plans and specifications according to the guidelines listed below. Radiation shielding plans should be approved before construction and before operation of the x-ray equipment. Radiation Safety Section approval of the radiation shielding design does not imply local building code approval. For assistance in proposing shielding, some general shielding guidance is available on our web site at www.michigan.gov/rss under Radiation Shielding Information.

For use by Radiation Safety Section Plan review number: _____		Facility registration number: _____	
A. Location of Proposed X-Ray Room(s)			Mail Results to this Address Send Results to this E-mail Address
Facility Name			E-mail
Address		Unit/Suite	Doctor's Name or Other Contact name
City	State	Zip Code	County
Expected Date of Project Completion	Facility Registration No. (if Already Registered)		Phone Number
Certificate of Need Information <i>X-ray installations that require a certificate of need (CON) include: megavoltage radiation therapy, C.T. scanners, cardiac catheterization, electrophysiology labs, and lithotripsy</i>			
Does this project require a Certificate of Need? Yes No If Yes, CON# _____			
B. Submitter of Plan if Different than Indicated in Part A.			Mail Results to this Address Send Results to this E-mail Address
Company Name			E-mail
Address		Unit/Suite	Contact Name
City	State	Zip Code	Phone Number
C. Facility Representative if Different than Indicated in Part A.			Mail Results to this Address Send Results to this E-mail Address
Facility Name			E-mail
Address		Unit / Suite	Contact Name
City	State	Zip Code	Phone Number
Submit this application along with radiation shielding plans and specifications to rssinfo@michigan.gov , fax to (517) 763-0131 or mail to: MIOSHA/Radiation Safety Section Michigan Department of Licensing and Regulatory Affairs 525 W. Allegan Street P.O. Box 30643 Lansing, Michigan 48909-8143			For use by Radiation Safety Section Date received: _____

D. Purpose of Application			
New X-Ray Room (New Construction)	Renovating an Existing X-Ray Room	New Equipment in Existing X-Ray Room	New Owner of an Existing X-Ray Facility
E. Type of Facility			
Hospital	Radiology Office	M.D./D.O.	Chiropractic
Podiatric	Veterinary	Dental	Industrial
Educational	Other _____		
F. Type of Machine and Anticipated Workload			
Radiographic	Extremity Only	Fluoroscopic	CT Scanner
Mammographic	Linear Accelerator	Heart Catheterization	Special Procedures
Dental Cephalometric	Dental CT (Cone Beam)	Industrial	Educational
	Other _____		
Manuf./Model: _____		Anticipated radiographic workload:	
Location: _____		mA-minutes per week: _____	
Maximum kilovoltage (kVp) _____		or patients per week: _____	
Maximum milliamperage (mA): _____		<i>Copy this page for additional machines or describe in a separate document.</i>	
G. Attach Drawing of Room			
<p>Provide plans or blue prints of rooms and adjacent areas (to scale). Scale should be ¼ inch per foot or larger. Please verify that ALL of these items are included in your submittal. Incomplete submittals will delay the plan review.</p>			
<ul style="list-style-type: none"> All x-ray equipment and accessories Windows Patient viewing window Wall cassette holder X-ray table and extent of table movement The exact location of all proposed shielding Doors Building material thickness, if used for shielding (include architectural documentation) 		<ul style="list-style-type: none"> Compass direction Exposure switch (exact location) X-ray tube and extent of movement The height of the shielding installed Information about the height of adjacent buildings Occupancy above and below Operator's barrier 	
<p>Specify proposed shielding, such as lead (note thickness), brick veneer, solid or hollow-core concrete block, cinder block, poured concrete, etc. Indicate the thickness and density of concrete and masonry materials. For corrugated concrete floors and ceilings that are used as shielding, include the MINIMUM concrete thickness and the density (or unit weight) of the concrete in pounds per cubic foot.</p> <p>Include a description of the occupancy and control of adjoining areas including above and below the x-ray room on the plans.</p> <p>Include a description of any area beyond an outside wall, such as a lawn, parking lot and sidewalk. For exterior walls, show distance to property line and to closest area where individuals may be present.</p> <p>Include the distance to any multi-story buildings which are nearby.</p>			
CT Scanners			
<p>Include a copy of the iso-exposure curve normally provided by the manufacturer and calculations performed by a medical physicist.</p>			
Linear Accelerators			
<p>For accelerator facilities, include all assumptions and calculations upon which the proposed shielding is based. Such calculations should address instantaneous dose equivalent rates, as would be measured with a rate-type survey meter, and integrated weekly doses to adjacent areas for worst-case operating conditions. Specify neutron shielding methods for duct work and for other room penetrations, such as the use of borated polyethylene doors. Specify therapeutic workload in terms of rads or cGy per week at 1 meter.</p>			
<p>Please notify the Radiation Safety Section promptly if changes are made which require re-evaluation of the plans. If there are any questions, please contact us at (517) 284-7820 or rssinfo@michigan.gov</p>			