



State of Colorado
Department of Public Health & Environment
R-400 Dosimetry Waiver Request for an Alternative to Continuous Individual Dosimetry Monitoring

INSTRUCTIONS: This application is for approval of an acceptable alternative to the use of continuous individual dosimetry monitoring badges that are used to demonstrate compliance with Sections 4.18.1 and 4.18.2. It must have original signatures and dates. **Please provide all information requested on this form.** Mail the original completed form with all attachments to the **Colorado Department of Public Health and Environment, HMWMD-XRC, 4300 Cherry Creek Drive South, Denver, Colorado 80246-1530.** You may also email a copy of the signed, completed form with all attachments to cdphe.hmxraycomments@state.co.us or fax to the number below. A response will be sent within 30 days. Please retain a copy of the completed application form for your records. If you have questions, please call (303) 692-3448 or fax (303) 691-7841 Attention: X-Ray Certification Unit.

Waiver Request Date: _____	Facility Type: (Check One)			
	<input type="checkbox"/> Dental	<input type="checkbox"/> Veterinary	<input type="checkbox"/> Podiatry	<input type="checkbox"/> Chiropractic
	<input type="checkbox"/> Medical	<input type="checkbox"/> Industrial	<input type="checkbox"/> Analytical	<input type="checkbox"/> Other

Section I - Application Information:

Facility Name:		Facility Registration No.:	
Legal Owner:			
Facility Address:			
City:		State:	Zip Code:
Business Phone Number:	Fax Phone Number:	Other Phone Number:	
Email Address:			

Section 2 - Approval Request:

I, _____, the undersigned Radiation Safety Officer, certify that:

(Please Print)

- This is a request for approval of an alternative to the use of continuous individual dosimetry monitoring badges per the requirements of Part 4, Section 4.18.3 of the Colorado Rules and Regulations Pertaining to Radiation Control, 6 CCR 1007-1.
- The alternative method used will be (check one):
 - Dosimetry Monitoring Reports** – attached are copies of the most recent six months of radiation dosimetry monitoring reports showing that the radiation workers at this facility are below 10% of the annual radiation limits listed in 6 CCR 1007-1, Section 4.6,
 - Qualified Expert report** – attached is a copy of the radiation level assessment by a Registered Qualified Expert performed as described in Section 4.18.3.1(2).
- The radiation dosimetry monitoring program used at the facility listed above is current and that the review of the Radiation Protection Program requirements of 6 CCR 1007-1, Part 4, Section 4.5 is current.
- I have reviewed the Radiation Protection Program for the facility per the requirements of Section 4.5 on an annual basis and have determined that it is appropriate for this facility to cease continuous individual dosimetry monitoring.
- I understand this approval is only valid for this facility at the address stated above.
- I understand that a change of address, adding additional x-ray machines, remodeling the x-ray room or failing to meet the requirements of 6 CCR 1007-1, Part 4, Section 4.5 Radiation Protection Program, will void the approval.
- I understand that the monitoring of **minors** must be done per the requirements of Section 4.18.1.2.
- I understand that monitoring of **declared pregnant workers** must be done per the requirements of Sections 4.13 and 4.18.1.3.
- This facility's registration information is current and there are no outstanding facility or machine violations.
- The information contained in this approval request is, to the best of my knowledge, true, accurate, and complete in all respects.
- I am fully authorized to make this approval request on behalf of this facility and will keep this request on file with the formal written notification of the Department's approval or denial.

Signature of Radiation Safety Officer: _____ Date: _____

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Approved Denied (Justify in space below)

Signature of Reviewer: _____ Date: _____ Title: _____

Signature of Supervisor: _____ Date: _____

Comments: (If approval is denied, substantiate with a brief statement and make recommendations if further action is required)

General Instructions Form R-400
Dosimetry Waiver Request for an Alternative to Continuous
Individual Dosimetry Monitoring

The Colorado *Rules and Regulations Pertaining to Radiation Control* 6 CCR 1007-1 (Regulations) requires all facilities possessing or using radiation machines to monitor the radiation exposure to their workers if the worker is likely to receive more than 10% of the radiation exposure limits set in Section 4.6 of Part 4 of the Regulations. Facilities may use R-400 to request a waiver so they can stop using dosimetry badges to monitor each employee's individual radiation exposure and use an alternate method to ensure employee radiation dose is below the regulatory limits.

Section 1 – Application Information

This section must be completely filled out. Please note that if this section indicates a change in registrant information such as an address change or an owner change, a Facility Registration Form R-4 must be submitted to update the facility's registration information. Your Dosimetry Waiver request will not be processed until the facility registration information is updated.

Section 2 – Approval Request

The facility must attach documentation to Form R-400 showing that their radiation workers are not likely to exceed 10% of these limits before the Department will approve the request. The Department will accept the following documentation as proof:

1. Radiation dosimetry records for each radiation machine operator and ancillary staff that are regularly present in the area where the radiation machine is used.
 - The dosimetry reports must show at least six months of data and must be up-to-date. The Department will not accept dosimetry reports more than nine months old.
2. A report from a Colorado registered Qualified Expert showing calculations and measurements proving that the use of the radiation machine(s) will not cause worker's exposures to exceed 10% of the limits in Section 4.6.
 - The report must show radiation survey measurements and annual dose calculations that take into account the facility design configuration, the workload on the machine, the machine exposure output, and radiation survey data.

The RSO must also confirm that he/she has reviewed the facility's radiation protection program according to the requirements of Section 4.5 and has determined that individual dosimetry monitoring is not necessary because employee exposure is not likely to exceed 10% of the exposure limits in Section 4.6 of Part 4. The Department will not approve requests for facilities with fluoroscopy, computed tomography, or therapy units because it is possible for a single accidental exposure to exceed 10% of the limits.

The RSO must confirm that the facility registration information is current and that the facility is compliant with all of the Regulations. The dosimetry waiver request will not be approved if there are any un-corrected facility or machine violations.

The facility's RSO must continue to perform and document an annual review of the Radiation Protection Program to determine if there have been changes to the sources of radiation exposure to employees. A generic Radiation Protection Program is available on our web site. Your Qualified Inspector will verify that an annual review was done during your routine machine inspection. Failure to do an annual review may cause the dosimetry waiver approval to be void. Adding an x-ray machine, significantly increasing the workload on existing machines, or re-modeling an x-ray room will void the dosimetry monitoring waiver. The facility must immediately begin an individual dosimetry monitoring program or contact a Colorado registered Qualified Expert to measure the worker's radiation exposure under the new conditions and generate a report showing that the worker's exposure will be less than 10% of the limits in Section 4.6. Adding additional staff does not void the dosimetry monitoring waiver.

If a worker has chosen to declare pregnancy, the conditions under Section 4.13 must be followed. A "Declared Pregnant" worker and her fetus must be monitored during the pregnancy if the worker's duties involve exposure to radiation sources. This does not void the dosimetry waiver.

Additional information may be obtained by email to cdphe.hmxraycomments@state.co.us, by calling 303-692-3448 or toll-free 888-569-1831 ext. 3448, by fax 303-691-7841 Attn: X-Ray Certification, or by checking our website: <https://www.colorado.gov/cdphe/xray>