KANSAS REGISTRATION OF RADIATION DEVICES FORM

COMPLETE AND RETURN THIS FORM, ALONG WITH THE APPROPRIATE FEE, TO: KANSAS DEPT. OF HEALTH & ENVIRONMENT (KDHE) → BUREAU OF COMMUNITY HEALTH SYSTEMS → RADIATION CONTROL PROGRAM → 1000 SW JACKSON, STE. 330 → TOPEKA, KANSAS 66612-1365 → (785) 296-1560 → FAX (785) 559-4251 → EMAIL: kdhe.xray@ks.gov → WEBSITE: http://www.kdheks.gov/radiation

A. **Facility** Contact Name _____

Facility Name _____

Facility Address _____

City, State, Zip _____

Telephone Number _____

Federal Tax ID # _____

Complete Mailing Information below if different than Facility Information

Mailing Contact Name _____

Mailing Facility Name _____

Mailing Address _____

City, State, Zip _____

Telephone Number _____

B. **HAS A RADIATION SHIELDING DESIGN FOR THIS FACILITY BEEN SUBMITTED TO KDHE FOR REVIEW?** ☐ Yes ☐ No

As of Sept. 20, 1993, a radiation shielding design is required to be submitted for review as part of the initial registration requirements. If a shielding design has not been submitted for review, please complete the form included with this packet and return it to the address above.

C. **THIS REGISTRATION IS FOR:**

☐ Registering a new facility

☐ Purchased this facility and x-ray equipment from: Provide seller's name & address below:
Name: _____
Address, City, State, Zip: _____

D. **CHECK ONE IN EACH CATEGORY:**

1. TYPE OF USE

☐ 1 Medical ☐ 2 Dental ☐ 3 Chiropractic ☐ 4 Osteopathy
☐ 5 Veterinary ☐ 6 Podiatry ☐ 7 Industrial ☐ 8 Research
☐ 9 Educational ☐ 10 Other _____

2. TYPE OF FACILITY

☐ 1 Private Office ☐ 2 Hospital ☐ 3 Clinic ☐ 4 Mobile (See F below)
☐ 5 Education ☐ 6 Industrial ☐ 7 Institutional ☐ 8 Other (Please specify)

E. **RECORD THE NUMBER OF X-RAY MACHINES IN EACH CATEGORY BELOW FOR THIS FACILITY - DO NOT USE CHECK MARKS OR X'S. SEE REVERSE SIDE FOR DEFINITIONS OF X-RAY MACHINES.**

_____ 1 Analytical X-Ray
_____ 2 Bone Densitometer
_____ 3 C-Arm
_____ 4 Cabinet X-Ray
_____ 5 Computerized Tomography
_____ 6 Dental Cephalometric
_____ 7 Dental Intraoral (include handheld units)
_____ 8 Dental Panoramic (include dental CT units)
_____ 9 Dental Ceph/Pano Combo
_____ 10 Fluoroscopic Only
_____ 11 Industrial X-Ray
_____ 12 Mammography
_____ 13 Particle Accelerator
_____ 14 Radiographic/Fluoro Combo - # of Tubes _____
_____ 15 Radiographic Only (include portable units)
_____ 16 Therapeutic (less than 0.9 Mev)
_____ 17 Therapeutic Accelerator
_____ 18 Other _____

TOTAL NUMBER OF X-RAY MACHINES AT THIS FACILITY _____

TOTAL NUMBER OF X-RAY TUBES AT THIS FACILITY _____ (This is the number to be used to calculate the fee due. The number of x-ray tubes may be different than the number of x-ray machines above as some machines contain more than one x-ray tube)

CALCULATE THE FEE DUE BY USING THE CHART ON THE ENCLOSED FEE CALCULATION SHEET FOR A NEW FACILITY - THE FEE MUST ACCOMPANY THIS FORM. FEES FOR INITIAL REGISTRATION FOR A NEW FACILITY ARE PRORATED DEPENDING ON THE QUARTER OF REGISTRATION AS INDICATED ON THE FEE CALCULATION SHEET FOR A NEW FACILITY.

F. **COMPLETE THIS SECTION ONLY IF YOU OWN MOBILE X-RAY UNITS (units that are mounted in a vehicle)** (Use additional sheets if necessary)

Van or Trailer I.D. No: _____ License Tag No: _____ State: _____

G. **SIGNATURE OF PERSON RESPONSIBLE FOR RADIATION SAFETY (I.E. DOCTOR IN CHARGE, RADIATION SAFETY OFFICER, ETC.)**

_____ DATE _____
AUTHORIZED SIGNATURE/TITLE

_____
PRINT OR TYPE NAME

_____
EMAIL ADDRESS

REG. NO. _____
FEE PAID _____
CHECK # _____

FOR KDHE USE ONLY

DEFINITIONS OF X-RAY PRODUCING DEVICES

X-RAY EQUIPMENT USED FOR MEDICAL PURPOSES

C-ARM - Diagnostic equipment designed with the tube head and film holder fixed in alignment (i.e. used in surgery & fluoroscopy)

RADIOGRAPHIC ONLY - Diagnostic radiography equipment used to produce stationary images (i.e. used in hospitals, clinics, chiropractic offices, podiatrist offices, veterinary offices & orthopaedic offices and includes portable units)

FLUOROSCOPIC ONLY - Diagnostic radiography equipment used to image moving structures (i.e. used in angiography)

RADIOGRAPHIC AND FLUOROSCOPIC COMBO - Diagnostic equipment with both radiographic and fluoroscopic capabilities (i.e. used in hospitals & clinics)

THERAPEUTIC X-RAY - An x-ray device used for superficial x-ray therapy

THERAPEUTIC ACCELERATOR - An accelerator used for radiation therapy

BONE DENSITOMETER - A device intended for medical purposes to measure bone density and mineral content by x-ray or gamma-ray transmission measurements through the bone and adjacent tissues

MAMMOGRAPHY- A device intended to be used to produce radiographs of the breast

COMPUTED TOMOGRAPHY - A diagnostic x-ray system intended to produce cross-sectional images of the body by computer reconstruction of the x-ray transmission on data

X-RAY EQUIPMENT USED FOR LABORATORY OR MANUFACTURING PURPOSES

ANALYTICAL - X-ray equipment used for analysis of samples

CABINET X-RAY - X-ray equipment designed to be used inside a cabinet. Used for radiography of samples or small items (i.e. used in mailrooms and airports)

INDUSTRIAL X-RAY - An x-ray device used to radiograph metal or equipment

PARTICLE ACCELERATOR - Non-medical accelerator that produces high-energy particles and focuses them on a target (also known as atom smashers)

X-RAY EQUIPMENT USED FOR DENTAL PURPOSES

DENTAL CEPHALOMETRIC - Diagnostic x-ray equipment used to demonstrate the alignment between bony and soft tissue structures where the film is placed outside the mouth

DENTAL INTRAORAL - Radiography of the teeth where the film is placed inside the mouth (also includes handheld units)

DENTAL PANORAMIC- Radiography of the teeth with an x-ray unit designed for images that show the entire jaw (also includes dental CT units)

DENTAL CEPHALOMETRIC/PANORAMIC COMBO - An x-ray unit with both cephalometric and panoramic capabilities

FOR INFORMATION REGARDING THE KANSAS RADIATION CONTROL PROGRAM FOR SUCH THINGS AS REGULATIONS, INFORMATIONAL NOTICES, NEWSLETTERS, ETC., PLEASE VISIT OUR WEBSITE AT: WWW.KDHEKS.GOV/RADIATION

INSTRUCTIONS FOR COMPLETING THE KANSAS REGISTRATION OF RADIATION DEVICES FORM

SECTION A Complete the information for the Facility Address block and, if different from the Facility Address, complete the information for the Mailing Address block. **Please provide an email address at the bottom of the form, if available.** FOR BILLING PURPOSES, PROVIDE THE FEDERAL TAX ID # (FEIN) FOR THIS FACILITY IN THE SPACE PROVIDED.

SECTION B If a shielding plan design has been prepared and provided to this office, please mark "Yes." If a shielding plan design has not been prepared and provided to this office, please mark "No" and complete the Radiation Shielding Plan Review included in the registration packet and return it to the address on the back of the form. Questions regarding the Radiation Shielding Plan Review – call (785) 296-1560 and ask for an x-ray inspector. **Please note – the Radiation Shielding Plan Review and the Kansas Registration of Radiation Devices Form with Fee are not required to be mailed at the same time. The Kansas Registration of Radiation Devices Form is required to be completed and returned with the Fee within 30 days of acquiring registrable x-ray producing devices.**

SECTION C Please mark the appropriate box in this section.

SECTION D Please mark the appropriate box for the type of use for your facility and the type of facility.

SECTION E Please record the **NUMBER** of x-ray machines that this facility possesses in each category. **DO NOT USE CHECK MARKS AND X's**. Record the total number of x-ray machines at this facility in the appropriate blank. Record the total number of x-ray tubes at this facility in the appropriate blank. The total number of x-ray tubes at this facility will be used to calculate the total fee due for this facility on the Fee Calculation Sheet For A New Facility. **NOTE: THE TOTAL NUMBER OF X-RAY MACHINES AND TOTAL NUMBER OF X-RAY TUBES MAY BE DIFFERENT AS SOME MACHINES CONTAIN MORE THAN ONE X-RAY TUBE.**

SECTION F If you possess mobile x-ray machines (units that are mounted in a vehicle), please provide the appropriate information.

SECTION G The individual responsible for the x-ray equipment at this facility should sign and date the registration form. This would be the individual that our office would contact for questions regarding the information reported on the registration form.

SEE THE FEE CALCULATION SHEET FOR A NEW FACILITY INCLUDED WITH THIS INFORMATION TO CALCULATE THE APPROPRIATE FEE REQUIRED TO ACCOMPANY THE COMPLETED KANSAS REGISTRATION OF RADIATION DEVICES FORM

FEE CALCULATION SHEET FOR A NEW FACILITY

K.A.R. 28-35-153 states that any person who is not registered and who acquires possession of a registrable item shall register with the department, within 30 days of the date of acquiring the item. There is an **annual** base fee of $200.00 per facility and an **annual** fee for each x-ray tube of $50.00 with no maximum fee amount, however, initial registration fees for a brand new facility are calculated based on the quarter that the x-ray equipment is received by the facility as reported to KDHE by the vendor and are prorated according to the table below. If your facility has an accelerator, the annual fee for each accelerator is $300.00 IN ADDITION to the annual fee for each x-ray tube and base fee per facility. In January of each year following initial registration, an annual registration packet will be mailed to your facility that will need to be completed and returned with the annual fee which is due on or before March 1 of each year.

If you are registering x-ray equipment for a **brand new facility**, find the quarter below in which you are registering your x-ray equipment and calculate your fee due accordingly:

	Base Facility Fee (New Facility Only)	**X-ray Tube Fee**		**Therapeutic & Particle Accelerator Fee**
1st Quarter Registration - January, February and March	$200.00	$50.00 per tube		$300.00 per accelerator
2nd Quarter Registration - April, May and June	$150.00	$37.50 per tube		$225.00 per accelerator
3rd Quarter Registration - July, August and September	$100.00	$25.00 per tube		$150.00 per accelerator
4th Quarter Registration - October, November and December	$50.00	$12.50 per tube		$75.00 per accelerator

If your facility does not possess an accelerator, do not add the accelerator fee to your Base Facility Fee and X-ray Tube Fee.

How to calculate your fee due:

In the table above, find the Base Facility Fee for the quarter that you are registering the equipment $_____

In the table above, find the X-ray Tube Fee for the quarter that you are registering the equipment and multiply that number by the number of x-ray tubes you are registering _____ (Per Tube fee) x _____ (# of tubes) = $_____

If you are also registering a therapeutic or particle accelerator, find the Fee in the Table above and multiply that number by the number of accelerators that you are registering

_____ (Accelerator fee) x _____ (# of accelerators) = $_____

(Note – if your facility does not possess accelerators, do not add this fee to the fee due)

TOTAL FEE DUE $_____

At this time, payments may be made by credit card, check or money order and should be made payable to KDHE.

THE APPROPRIATE FEE MUST BE RECEIVED BY THIS OFFICE WITH THE COMPLETED KANSAS REGISTRATION OF RADIATION DEVICES FORM. AFTER YOUR FEE AND REGISTRATION FORM ARE PROCESSED, A CERTIFICATE OF REGISTRATION WILL BE MAILED TO YOUR FACILITY.

PART 2. REGISTRATION OF RADIATION PRODUCING DEVICES

28-35-152. Persons registered.

Any person possessing a registrable item shall register with the department in accordance with the rules and regulations in this part. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended May 1, 1976; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-153. Initial registration.

Any person who is not registered and who acquires possession of a registrable item shall register with the department, within 30 days of the date of acquiring the item. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-154. Renewal of registration.

Each registrant who possesses a radiation-producing device shall reregister with the department annually. This registration shall be submitted on or before March 1 of each year. (Authorized by and implementing K.S.A. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985; amended December 30, 2005.)

28-35-155. Registration form.

Registration shall be made upon forms devised and furnished by the department. Each registrant shall provide all the information called for by the form and any additional information requested by the department. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-156. Separate installations.

Except as otherwise provided in K.A.R. 28-35-157, and any amendment to that rule and regulation, a separate registration form shall be completed for each installation. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-157. Special registration.

If the reporting of each installation, or other information called for, is impractical, the secretary, upon the written request of a person and upon a finding that the public health and safety would not be adversely affected, may approve registration in such special form as the secretary may prescribe. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-158. Report of change.

If a change is made on any x-ray equipment of other device producing radiation, or to any installation, so that information on file with the department is no longer accurate, the registrant shall notify the department, in writing, of the change, within 30 days of the date the change was made. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-159. Registration shall not imply approval.

A person shall not refer, in any form of advertisement, to the fact a registrable item is registered with the department, or state or imply that any installation registered with the department is approved by the department. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-84-43. Dec. 19, 1984; amended May 1, 1985.)

28-35-160. Vendor notification.

(a) Each distributor, retailer, or other person who sells, leases, transfers, or lends any registrable item or items shall notify the department, at 90-day intervals, of the following:

(1) The names and addresses of all persons who have received the item or items;

(2) the name of the manufacturer and the model number of the item or items transferred; and

(3) the date on which the registrable item or items were transferred.

(b) No person shall make, sell, lease, transfer, lend, assemble, or install radiation machines or the supplies used in connection with these machines unless the machines and supplies, when properly placed in operation and used, meet the requirements of these regulations. (Authorized by and implementing K.S.A. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985; amended December 30, 2005.)

28-35-161. Discontinuance of use.

If a registrant ceases to use a registrable item or items, for any reason, the registrant or the duly authorized representative of the registrant's estate shall give written notice to the department of the cessation of use. The notice shall be provided within 30 days of the date that the registrant ceases to use the registrable item or items, and shall state the date on which use of the item or items where disposed. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-162. Exclusion from registration. The following equipment shall not be required to be registered:

(a) Electronic equipment that produces radiation incidental to its operation for other purposes, if the dose equivalent rate averaged over an area of 10 square centimeters does not exceed five μ Sv (0.5 millirem) per hour at five centimeters from any accessible surface of the equipment.

(b) radiation-producing equipment that is in transit or is in storage incident to transit; and

(c) domestic television receivers. (Authorized by and implementing K.S.A. . 48-1607; effective Jan. 1, 1970; amended May 1, 1976; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985; amended December 30, 2005.)

28-35-163. Excluded possessors.

(a) Except as provided in subsection (b), a common carrier or contractor carrier operating within this state who is in possession of a registrable item or items shall be exempt from the provisions of these regulations, if the carrier possesses the registrable item or items for another person, solely for the purpose of transporting or storing the item or items.

(b) Each common carrier or contract carrier shall be subject to the provisions of K.A.R. 28-35-228a and 28-35-229a, and any amendments of those rules and regulations. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-164. Temporary use or storage of registrable items.

Any person desiring to bring a registrable item into this state for temporary use or storage shall give written notice to the department before bringing the item into this state. The notice shall be given to the department at least five days before the item is to be brought into this state and shall include the type and energy of the radiation source, the nature and scope of the use or storage, the proposed duration of use or storage, and the exact location where the radiation source is to be used or stored. If, in a specific case, the five day period would impose an undue hardship on the person, the person, upon application by letter or telegram to the department, may obtain permission to proceed at an earlier date. In addition, the person shall:

(a) Comply with all applicable regulations for the department; and

(b) supply the department with such other information as it may request. If a registrable item is kept in the state for a total of 30 days, in a period of 12 consecutive months, it shall be considered to be permanently located in the state and shall be considered to be permanently located in the state and shall be subject to the registration provision of these regulations. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-165. Disposal of registered items.

Whenever any person disposes of a registrable item, or items, by any method, the person, or in the event of the person's death, the representative of the person's estate, shall give written notice to the department of the disposal within 30 days. The notice shall include the date of disposal, the method of disposal, and, if transferred to another person, the name and address of the recipient. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-166. Shoe fitting, fluoroscopic machines; prohibition of.

No person shall install, operate or maintain any device or machine with the state of Kansas which used fluoroscopic, X-ray or radiation principles for the purpose of fitting shoes. (Authorized by and implementing K.S.A. 1984 Supp. 48-1607; effective Jan. 1, 1970; amended, T-85-43, Dec. 19, 1984; amended May 1, 1985.)

28-35-167. Shielding plan for radiation-producing devices.

(a) Before construction, the floor plan or plans, shielding specifications, and equipment arrangement of all new installations, or modifications of existing installations, utilizing ionizing radiation machines shall be submitted to the department for review and consideration for approval, with the information specified in K.A.R. 28-35-168 and K.A.R. 28-35-169 of this part.

(b) If the applicant is not a qualified expert, then the applicant may be required to utilize the services of a qualified expert to determine the shielding specifications before the secretary's review and consideration for approval of the shielding plan.

(c) The approval of the shielding specifications shall not preclude the requirement of additional modifications if a subsequent analysis of operating conditions indicates the possibility that an individual could receive a dose in excess of the limits prescribed in K.A.R. 28-35-212a and K.A.R. 28-35-214a.

(d) After installation of each radiation machine, the registrant shall maintain the following records for inspection by the department:

(1) The maximum rated technique factors of the machine;

(2) a scale drawing of the room in which the stationary radiation machine system is located. This drawing shall indicate the use of areas adjacent to the room and an estimation of the extent of occupancy by an individual in these areas. The drawing shall include either of the following:

(A) The results of a survey for radiation levels present at the operator's position and at points surveyed outside the room, and the specific test conditions used; or

(B) The type and thickness of materials, or the lead equivalency, of each protective barrier

(e) A qualified expert, who shall be approved by the department, shall be consulted in the design of each particle accelerator installation and shall be called upon to perform a radiation survey when the accelerator is first capable of producing radiation.

(f) Each particle accelerator installation shall be provided with any primary or secondary barriers, or both, that are necessary to ensure compliance with the following:

(1) K.A.R. 28-35-212a;
(2) K.A.R. 28-35-212c;
(3) K.A.R. 28-35-212d;
(4) K.A.R. 28-35-212f;
(5) K.A.R. 28-35-212g;
(6) K.A.R. 28-35-213a;
(7) K.A.R. 28-35-214a; and
(8) K.A.R. 28-35-214b. (Authorized by and implementing K.S.A. 48-1607; effective December 30, 2005.)

28-35-168. Information on radiation shielding required for plan reviews. Each registrant shall submit the following information as specified in K.A.R. 28-35-167:

(a) (1) Each plan showing, at a minimum, all of the following:
(A) The normal location of the system's radiation port;
(B) the port's travel and traverse limits;
(C) the general direction or directions of the useful beam;
(D) the locations of any windows and doors and any other openings;
(E) the location of the operator's booth; and
(F) the location of the control panel;
(2) the type and thickness of materials, or the lead equivalency, of all walls, doors, partitions, floors, and ceilings of each room;
(3) the dimensions of each room;
(4) the type of occupancy of all adjacent areas, inclusive of the space above and below each room. If there is an exterior wall, the distance to the closest area or areas where individuals are likely to be present shall be shown;
(5) the make and model of the equipment, the maximum technique factors, and the energy waveform; and
(6) each type of examination or treatment, or both, that will be performed with the equipment;
(b) information on the anticipated workload of the system or systems in mA-minutes per week; and
(c) a report showing all basic assumptions used in the development of the shielding specifications. (Authorized by and implementing K.S.A. 48-1607; effective December 30, 2005.)

28-35-169. Design requirements for an operator's booth.

(a) Space requirements.
(1) Each operator shall be allotted adequate room to operate the unit effectively.
(2) In determining whether the allotted space is adequate, any encumbrance by the control panel, overhang, cables, or other similar encroachments shall be evaluated.
(3) The booth shall be located or constructed so that unattenuated direct scattered radiation originating on the examination table or at the wall cassette cannot reach the operator's station in the booth.
(b) Structural requirements. Shielding shall be provided to meet the requirements of K.A.R. 28-35-211a through K.A.R. 28-35-234a of these regulations.
(c) Control placement. The control for the system shall be fixed within the booth.
(1) The operation of the radiation-producing devices shall be possible only from within the booth.
(2) The location of the control shall allow the operator to use the majority of the available viewing systems.
(d) Viewing system requirements.
(1) Each booth shall have at least one viewing device positioned so that both of the following conditions are met:
(A) The operator can view the patient during any exposure.
(B) The operator can have full view of any occupant of the room and anyone who enters the room. If any door allowing access to the room cannot be seen from the booth, that door shall have an interlock control that prevents exposure if the door is not closed.
(2) If the viewing system is a window, the window shall have the same lead equivalence as that required for the booth's wall in which the window is mounted.
(3) If the viewing system is by mirrors, each mirror shall be positioned so that the requirements of K.A.R. 28-35-254(d)(1) are met.
(4) If the viewing system utilizes a camera, both of the following requirements shall be met:
(A) The camera shall be positioned so that the requirements of K.A.R. 28-35-254(d)(1) are met.
(B) An alternate viewing system shall be provided as a backup for the primary system. (Authorized by and implementing K.S.A. 48-1607; effective December 30, 2005.)

DIRECTIONS FOR SHIELDING PLANS:

MEDICAL FACILITIES

(Please complete forms as follows)

Complete questions # 1-9 as well as a diagram of the floor plan from question #6.

INDUSTRIAL FACILITIES (OR NON-MEDICAL FACILITIES)

(Please complete forms as follows)

Complete questions # 1-5 if the unit is hand held or mobile and NOT a fluoroscopy unit. If it is fluoroscopy, please also complete question #9.

Complete questions # 1-9 if the unit is a fixed position unit.

Kansas Department of Health and Environment (KDHE)
RADIATION CONTROL SECTION
Website: www.kdheks.gov/radiation/index.html
Ref: K.A.R. 28-35-167 through 169

INFORMATION REQUIRED FOR AN X-RAY RADIATION SHIELDING PLAN REVIEW

X-ray Registration Number: ***(if new, leave blank)***	
Name of proposed user and owner of x-ray equipment:	
Business/Facility Name:	
Address:	
City, State, ZIP:	
Phone #:	
Fax #:	
Email Address:	
Room #(s):	

Provide the address where to send our review of your plan *(if it is different than the address of the proposed installation.)*

_____

FOR MEDICAL FACILITIES:

Type of medical facility *(check the appropriate box):*

☐ Hospital ☐ M.D./D.O. (including clinics, surgery centers, pain mgmt., weight loss, etc.) ☐ DDS ☐ Podiatry
☐ Veterinary ☐ Chiropractic ☐ Educational
☐ Other (list): _____

FOR MEDICAL FACILITIES:

Type of medical x-ray equipment *(check the appropriate box):*

☐ Radiographic ☐ Fluoroscopic (fixed and mobile c-arms) ☐ Radiographic/Fluoroscopic ☐ CT ☐ Mammography
☐ Cardiac Cath ☐ Angiography ☐ Dental-Intraoral ☐ Dental-CBCT ☐ Dental-Ceph ☐ Dental-Pano
☐ Dental-Ceph/Pano Combo ☐ Bone Mineral Densitometry ☐ Particle Accelerator ☐ Educational ☐ Analytical
☐ Cabinet ☐ Security ☐ Other(list):_____

FOR INDUSTRIAL (OR NON-MEDICAL FACILITIES):

Type of industrial facility *(check the appropriate box)*:

☐ Industrial ☐ Public Facility ☐ Educational

☐ Other: (example: recycling facility, oil refinery, etc.) _____

FOR INDUSTRIAL (OR NON-MEDICAL FACILITIES):

Type of industrial x-ray equipment *(check the appropriate box)*:

☐ Particle Accelerator ☐ Analytical ☐ Cabinet ☐ Security ☐ Educational

☐ Other: (list) _____

Please answer all questions for each room. Make copies of this form for more than one room.

1. Make and model of the x-ray generator or control:
   Room #: _____
   Manufacturer: _____
   Model #: _____
   Serial #: _____
   Date of Manufacture: _____

2. Maximum mAs used per procedure: _____
   Maximum mA _____ per procedure
   Maximum exposure time in seconds per procedure _____
   Maximum on-time of x-ray beam per procedure in ☐ sec ☐ min ☐ hrs *(check box and list amount)* _____

3. Maximum kVp used per procedure: _____

4. Type of procedures which will be performed with the equipment: *(examples):* _____

5. Workload: Average number of procedures or exposures per week: _____ ☐ procedures ☐ exposures

6. Please provide a floor plan that shows, at a minimum, the following for each room or device: (You may use the graph paper provided on page 3 or provide your own layout form/architectural drawing.)

   a) the normal location of the x-ray system's radiation port or diagnostic tube
   b) the port or diagnostic tube housing's travel and traverse limits
   c) the direction or directions of the useful x-ray beam
   d) the locations of any windows and doors
   e) the location of the operator's booth
   f) the location of the x-ray control panel
   g) the dimensions of each room concerned

7. What is the structural composition, thickness or lead equivalent of each room concerned: *(Indicate primary or secondary barrier.)*
   Primary barrier is a wall/floor that the direct x-ray beam strikes. Secondary barrier is a wall/floor that secondary/scatter radiation strikes.
   Walls: _____
   Doors: _____
   Partitions: _____
   Floor: _____
   Ceiling: _____

8. What is the type of occupancy factor* of each adjacent room/area, inclusive of space above and below the rooms concerned. If there is an exterior wall, please show on floor plan or write the distance to the closest areas where it is likely that individuals may be present:

_____
_____
_____

(i.e., Is public access "controlled" by you or is it "open and freely available" to the general public? Is it continuously occupied or what percentage for the time is it occupied?)

9. Name/address/phone #/ email of the qualified expert, medical/health physicist, or other, which may have computed the shielding requirements, including all basic assumptions and recommendations.

_____
_____
_____

Submit x-ray room plans and specifications with this completed form to:

Kansas Department of Health and Environment
Bureau of Community Health Systems, Radiation Control Program
1000 SW Jackson, Suite 330, Topeka, KS 66612-1365
Phone 785-296-1560, Fax 785-559-4251
E-mail: kdhe.xray@ks.gov

ROOM(S) DRAWING (use additional copies if necessary)

NAME: _____

ADDRESS: _____

ROOM # OR MACHINE NAME OR MODEL #: _____

DEFINITIONS OF TYPES OF FACILITIES

M.D./D.O. OFFICE—Facilities such as clinics, surgery centers, pain management, weight loss, etc.

EDUCATIONAL—A facility that uses x-ray equipment as part of an educational program for training purposes.

INDUSTRIAL—A facility that uses x-ray to examine a structure or analyze a material (uses higher energy x-rays).

PUBLIC FACILITY—A facility that is occupied by members of the general public (i.e., baggage claim, security device).

DEFINITIONS OF TYPES OF X-RAY MACHINES

ANALYTICAL—X-ray equipment used for analysis of samples (i.e., XRF units that are either hand-held or a cabinet unit).

BONE DENSITOMETER—A device intended for medical purposes to measure bone density and mineral content by x-ray or gamma-ray transmission measurements through the bone and adjacent tissues.

CABINET X-RAY—X-ray equipment designed to be used inside a cabinet. Use for radiography of samples or small items (i.e., used in mailrooms and airports or security checkpoints)

C-ARM—Diagnostic equipment designed with the tube head and film holder fixed in alignment (i.e., used in surgery & fluoroscopy. Can also be a fixed unit, example: cath lab).

COMPUTED TOMOGRAPHY (CT)—A diagnostic x-ray system intended to produce cross-sectional images of the body by computer reconstruction of the x-ray transmission on data.

DENTAL CEPHALOMETRIC—Diagnostic x-ray equipment used to demonstrate the alignment between bony and soft tissue structures where the film is placed outside the mouth.

DENTAL CEPHALOMETRIC/PANORAMIC COMBO—An x-ray unit with both cephalometric and panoramic capabilities.

DENTAL INTRAORAL—Radiography of the teeth where the film or detector is placed inside the mouth.

DENTAL PANORAMIC—A dental x-ray unit that images a two-dimensional view of the upper and lower jaw region.

CONE BEAM CT UNIT—(dental or ENT) A variation of the traditional CT system. Systems capture data using a cone-shaped x-ray beam and the data is used to reconstruct a 3D image.

FLUOROSCOPIC ONLY—Diagnostic radiography equipment used to image moving structures. These units can be fixed units or mobile units. (i.e., used in angiography, surgery, cardiac cath lab, example: c-arm unit).

INDUSTRIAL X-RAY—X-ray device that is used to radiograph metal or equipment.

MAMMOGRAPHY—A device intended to be used to produce radiographs of the breast.

PARTICLE ACCELERATOR—Non-medical accelerators.

RADIOGRAPHIC ONLY—Diagnostic radiography equipment used to produce stationary images (i.e., used in hospitals, clinics, chiropractic offices, podiatrist offices, osteopath offices, veterinary offices & orthopedic offices).

RADIOGRAPHIC AND FLUOROSCOPIC COMBO—Diagnostic equipment with both radiographic and fluoroscopic capabilities (i.e., used in hospitals and clinics).

SECURITY—Equipment used for Security Screening for use on humans. (full body x-ray scanner)

THERAPEUTIC ACCELERATOR—An accelerator used for radiation therapy.

THERAPEUTIC X-RAY—An x-ray device used for superficial x-ray therapy.

FORM RH-3
(06/16)

STATE OF KANSAS
DEPARTMENT OF HEALTH AND ENVIRONMENT

NOTICE TO EMPLOYEES

STANDARDS FOR PROTECTION AGAINST RADIATION (Part 4)
NOTICES, INSTRUCTIONS AND REPORTS TO WORKER: INSPECTIONS (Part 10)

In the Kansas Radiation Protection Regulations, the Department of Health and Environment Has Established Certain Provisions for the Options of Employees Engaged in Activities under an Agency License or Registration.

YOUR EMPLOYER'S RESPONSIBILITY

Your employer is required to:

1. Apply these regulations to work involving sources of radiation.
2. Post or otherwise make available to you a copy of the Department of Health and Environment regulations, licenses, and operating procedures which apply to work you are engaged in, and explain their provisions to you.
3. Post any Notice of Violation involving radiological working conditions, proposed imposition of civil penalties or orders.

YOUR RESPONSIBILITY AS AN EMPLOYEE

You should familiarize yourself with those provisions of the Department of Health and Environment regulations, and the operating procedures which apply to the work you are engaged in. You should observe their provisions for your own protection and that of your co-workers.

WHAT IS COVERED BY THESE REGULATIONS

1. Annual dose limits of individuals occupationally exposed to radiation and radioactive materials;
2. Measures to be taken after accidental exposure;
3. Personnel monitoring, surveys and equipment;
4. Caution signs, labels and safety interlock equipment;
5. Occupational dose records and reports;
6. Options for employees regarding Department Inspections;
7. Related matters;

CONTACTING THE DEPARTMENT

Inquiries dealing with the matters outlined above can be sent to Radiation Control Program, Bureau of Community Health Systems, Kansas Department of Health and Environment, 1000 SW Jackson, Suite 330, Topeka, Kansas, 66612-1365, call (785) 296-1560, FAX (785) 296-0984 or the internet at **www.kdheks.gov/radiation**.

To report radiation emergencies during off hours, holidays or weekends call (785) 291-3333

REPORTS ON YOUR EXPOSURE HISTORY

1. The Department of Health and Environment regulations require that your employer give you a written report if you receive an occupational dose in excess of any applicable limit as set forth in the regulations or in the license. The occupational dose limits for individuals are set forth in 28-35-212a, 28-35-212f, 28-35-213a and 28-35-213b of the regulations. These sections specify occupational dose limits for exposure to radiation and exposure to concentrations of radioactive material in air or water.
2. If you work where personnel monitoring is required, or if you request information on your occupational dose.
   a. Your employer must give you a written report, upon termination of your employment, of your occupational dose, or upon request, and
   b. Your employer must advise you annually of your occupational dose.

INSPECTIONS

All licensed or registered activities are subject to inspection by representatives of the Department of Health and Environment. In addition, any employee or representative of the employees who believes that there is a violation of the Nuclear Energy Development and Radiation Control Act 48-1601 et seq., the regulations issued there under, or the terms of the employer's license or registration with regard to radiological working conditions in which the employee is engaged, may request an inspection by sending a notice of the alleged violation to the Kansas Department of Health and Environment. The request must set forth the specific grounds for the notice, and must be signed by the employee or a representative of the employees. During inspections, Agency inspectors may confer privately with employees, and any employee may bring to the attention of the inspectors any past or present condition which they believe contributed to or caused any violation as described above.

RAISING CONCERNS

No licensee or registrant shall discharge or in any manner discriminate against any worker because the worker has filed any complaint, or instituted or caused to be instituted any proceeding, or has testified or is about to testify in any proceeding, or because of the exercise by the worker on behalf of the worker or others of any option afforded by the regulations.

POSTING REQUIREMENT

Copies of this notice must be posted in a sufficient number of places where employees are engaged in activities licensed or registered pursuant to parts 2 and 3 of the Kansas Radiation Protection Regulations, to permit individuals the opportunity to observe a copy of this notice while on the way to or from the above mentioned activities.

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT
Bureau of Community Health Systems
Radiation Control Program
1000 SW Jackson Street, Suite 330
Topeka KS 66612-1365
(785) 296-1560

State law allows you to pay fees to the Radiation Control Program by check or money order made payable to KDHE or by credit card. We accept the credit cards listed below. Complete this form for credit card payments only. **Due to many programs within our department collecting fees, supporting paperwork for the fee due MUST accompany all forms of payment.**

Payment for:
(check all that apply)

☐ Radioactive Materials License ☐ X-ray Equipment Registration
☐ Reciprocity ☐ Generally Licensed Devices ☐ Radon Certification
☐ Tier II ☐ Form R ☐ Other_____

Payment type (check one):

☐ VISA ☐ MasterCard ☐ DISCOVER ☐ AMERICAN EXPRESS

Total payment amount $_____

I hereby certify all information provided on this payment form is complete and accurate.

Cardholder's Signature: _____ Date: _____
Signature gives the State of Kansas Department of Health and Environment, Radiation Control Program authorization to Process payment for the above listed transaction(s) and amount(s) against the referenced credit card. The customer agrees That the signature above is that of the authentic cardholder and the intent of this form is to secure payment due to the State of Kansas Department of Health and Environment.

Account Number: _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____ _____	
Expiration Date: _____ / _____	
Name (as it appears on card):	Email address:
Company Name:	
Mailing Address:	
City: State: Zip:	

PLEASE NOTE: After the transaction has been processed, a receipt will be sent to the email address above. This form shall be maintained in a secure location for reconciliation purposes for a period of one year and then properly disposed of by shredding.