KAISER PERMANENTE®

Br. 1

Imaging Services
Capitol Hill MOB
700 2nd Street NE
Washington, DC 20002

November 7, 2012

Licensing Assistant Section
Nuclear Materials Safety Branch
U.S. Nuclear Regulatory Commission
Region 1
2100 Renaissance Boulevard, Suite 100
King of Prussia, PA 19406

RE: License Amendment Request
Kaiser Permanente – Capitol Hill Medical Center
License No. NRC-19-31420-01 03038361

Please amend the above referenced license to authorize the changes detailed below.

1. The change of Radiation Safety Officer from Carol P. Cardinale, M.D. to Howard DiPiazza, M.D. for materials and uses listed in 10 CFR 35.100, and 10 CFR 35.200. Dr. DiPiazza acted as RSO at Holy Cross Hospital in Silver Spring, MD, license #MD-31-001-01 until 2006. Please find the referenced license attached.

Any questions regarding the above matter may be directed to Bryan Yoder, consultant, Krueger-Gilbert Health Physics, Inc. at (410) 692-9806 or to Mr. Mike Ofori-Darkwa, at 240-704-3568.

Sincerely,

Carol Cardinale MD

Dr. Carol Cardinale

State of Maryland

DEPARTMENT OF THE ENVIRONMENT

RADIOLOGICAL HEALTH PROGRAM

RADIOACTIVE MATERIAL LICENSE

Pursuant to the Maryland Radiation Act, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. The license is subject to all applicable rules, regulations and orders of the Maryland State Department of the Environment, now or hereinafter in effect and to any conditions specified below.

1. Name: Holy Cross Hospital	**3. License No.:** MD-31-0(-01
2. Address: 1500 Forest Glen Road Silver Spring, Maryland 20910-1484	**4. Amendment No.:** 43 Code C 120
	5. Expiration Date: Novembe 30, 200

6. Radioactive material element & mass number:	7. Chemical and/or physical form:	8. Maximum amou it of radioactivity wh ch licen see may possess at any o e time:
A. Any radioactive material listed in Section G.29 of COMAR 26.12.01.01	A. Any radioactive material listed in Section G.29 of COMAR 26.12.01.01	A. As needed to pe orm dia gnostic tests
B. Any radioactive material listed in Section G.31 of COMAR 26.12.01.01	B. Any radioactive material listed in Section G.31 of COMAR 26.12.01.01	B. As needed to pe orm diagnostic tests
C. Any radioactive material listed in Section G.35 of COMAR 26.12.01.01	C. Any radioactive material listed in Section G.35 of COMAR 26.12.01.01	C. 3000 millicurie
D. Xenon-133	D. Gas	D. 400 millicuries
E. Iodine-123	E. Sodium Iodide	E. As needed
F. Cobalt-57	F. Any sealed source pursuant to COMAR 26.12.01.01 § G.18	F. No source to ex ed 15 millicuries
G. Technetium-99m	G. DTPA aerosol	G. 200 millicuries
H. Gadolinium-153	H. Sealed source North American Scientific Model MED 3601	H. 975 millicuries
I. Fluorine-18	I. Any	I. 500 millicuries
J. Depleted Uranium-235	J. Metal	J. 150 pounds
K. Germanium-68	K. Sealed source	K. No source to ex ed 2 millicuries

State of Maryland

DEPARTMENT OF THE ENVIRONMENT

RADIOLOGICAL HEALTH PROGRAM

RADIOACTIVE MATERIAL LICENSE

License Number: MD-31-001-01	Amendment Number: 43 (02120)	
L. Cesium-137	L. Sealed source	L. No source to exceed 35 millicuries; total possession 140 millicuries.
M. Iodine-131 labeled antibody	M. Iodine-131	M. 300 millicuries
N. Indium-111	N. Sterile chloride solution	N. 100 millicuries
O. Yttrium-90	O. Sterile chloride solution	O. 300 millicuries

CONDITIONS

9. Authorized Uses:

A. Any uptake, dilution, and excretion procedure approved in Section G.29 of COMAR 26.12.01.
B. Any imaging and localization procedure approved in Section G.31 of COMAR 26.12.01.
C. Any radiopharmaceutical therapy procedure approved in Section G.35 of COMAR 26.12.01.01.
D. Ventilation studies.
E. Uptake, dilution, and excretion studies.
F. Reference, calibration & quality control.
G. Pulmonary imaging.
H. Instrument calibration.
I. For use in diagnostic imaging and localization studies.
J. Shielding.
K. Camera quality control.
L. Camera attenuation correction.
M. For use in the treatment of relapsed or refractory low grade and transformed low grade non-Hodgkin's lymphoma.
N. Treatment of relapsed or refractory low grade, follicular or transformed B-cell non-Hodgkin's lymphoma.
O. Treatment of relapsed or refractory low grade, follicular or transformed B-cell non-Hodgkin's lymphoma.

State of Maryland

DEPARTMENT OF THE ENVIRONMENT

RADIOLOGICAL HEALTH PROGRAM

RADIOACTIVE MATERIAL LICENSE

License Number: MD-31-001-01	Amendment Number: 43 (02120)

CONDITIONS

10. The authorized place of use is the licensee's address stated in Item 2. The licensee must notify the Radiological Health Program 30 days prior to vacating a permanent use address as is required by Section D.1301 of COMAR 26.12.01.01.

11A. The radiation protection program shall be under the supervision of Howard Di Piazza, M.D.

11B. Radioactive material shall be used by, or under the supervision of:

AUTHORIZED USERS:	SPECIFIC USE:
➢ Robert Zimmerman, M.D.	Items 6A, 6 B, 6C
➢ Howard Di Piazza, M.D.	Items 6A, 6 B, 6C
➢ Carole Z. Rubin, M.D.	Items 6A, 6 B,
➢ Anil Narang, D.O.	tems 6A, 6 B, 6C (excluding I-131 for thyroid carcinon .)
➢ Helen Schneider, M.D.	Items 6A, 6 B, 6C (excluding I-131 for thyroid carcino a)
➢ Steward Karr, M.D.	Items 6A, 6 B, 6C (excluding I-131 for thyroid carcino a)
➢ Anthony Modica, M.D.	Items 6A, 6 B
➢ Arman Moshyedi, M.D.	Items 6A, 6 B
➢ Ryan Jay Zucker, M.D.	Items 6A, 6 B, 6C

State of Maryland

DEPARTMENT OF THE ENVIRONMENT
RADIOLOGICAL HEALTH PROGRAM
RADIOACTIVE MATERIAL LICENSE

License Number: MD-31-001-01	Amendment Number: 43 (02120)

CONDITIONS CONTINUED

12. The licensee shall comply with all appropriate provisions of COMAR 26.12.01.01 "Regulations for Control of Ionizing Radiation."

13A. Each sealed source containing radioactive material, other than Hydrogen-3 with a half-life greater than thirty (30) days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six (6) months. In the absence of a certificate from a transferor indicating that a test has been made within six (6) months prior to the transfer, the sealed source shall not be put into use until tested. If there is reason to suspect that a sealed source might have been damaged, or might be leaking, it shall be tested for leakage before further use.

13B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of a device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate.

13C. Records of leak tests shall be kept in units of microcuries and maintained for inspection by the Department.

13D. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Department regulations. A report shall be filed within five (5) days of the test with the Administrator, Radiological Health Program, 1800 Washington Boulevard, Baltimore, Maryland 21230 describing the equipment involved, the test results, and the corrective action taken.

13E. Test for leakage and/or contamination shall be performed by persons specifically authorized by the Department, the U.S. Nuclear Regulatory Commission or another Agreement State to perform such services.

13F. Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.

13G. Except for alpha sources, the periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been tested within six months prior to the date of use or transfer.

State of Maryland

DEPARTMENT OF THE ENVIRONMENT

RADIOLOGICAL HEALTH PROGRAM

RADIOACTIVE MATERIAL LICENSE

License Number: MD-31-001-01	Amendment Number: 43 (02120)

CONDITIONS CONTINUED

14. Sealed sources containing radioactive material shall not be opened.

15. The licensee shall conduct a physical inventory every three (3) months to account for all sealed sources received and possessed under the license.

16. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Department, and shall include the quantities and kinds of radioactive material, location of sealed sources, and the date of the inventory.

17. The licensee may use the Calicheck or Lineator device for doing linearity tests of his dose calibrator provided he follows the procedures in the respective manual

18. The licensee shall elute generators and process radioactive material with reagent kits in accordance with instructions furnished by the manufacturer on the label attached to or in the leaflet or brochure that accompanies the generator or reagent kit.

19A. The licensee shall perform a test to detect and quantify the activity of molybdenum-99 contamination in each elution of technetium-99m from a molybdenum-99/technetium-99m generator and in each extraction or separation of technetium-99m from molybdenum-99 not contained in a generator.

19B. The licensee shall not use technetium-99m for human use that contains more than 0.15 microcurie of molybdenum-99 per millicurie of technetium-99m. The limit for molybdenum-99 contamination represents a maximum value and molybdenum-99 contamination should be kept as low as reasonably achievable below this limit.

19C. The licensee shall establish written procedures for personnel performing tests to detect and quantify molybdenum-99 contamination. These procedures shall include all necessary calculations and steps to be taken if activities of molybdenum-99 in excess of the limit specified in Item 19B. above are detected.

State of Maryland

DEPARTMENT OF THE ENVIRONMENT

RADIOLOGICAL HEALTH PROGRAM

RADIOACTIVE MATERIAL LICENSE

License Number: MD-31-001-01	Amendment Number: 43 (02120)

CONDITIONS CONTINUED

19D. Personnel performing tests to detect and quantify molybdenum-99 contamination shall be g 'en spe ific training in performing these tests prior to conducting such tests.

(1) The licensee shall maintain for inspection by the Department records of the results c each te st performed to detect and quantify molybdenum-99 contamination and records of trai ng give n to personnel performing these tests.

(2) Records described in Subitem (1) above shall be maintained for two (2) years follov ng the performance of the tests and the training of personnel.

20. Food and beverage containers shall not be discarded in radioactive or normal trash containe : in lice isee's areas utilizing radioactive materials.

State of Maryland

DEPARTMENT OF THE ENVIRONMENT

RADIOLOGICAL HEALTH PROGRAM

RADIOACTIVE MATERIAL LICENSE

License Number: MD-31-001-01	Amendment Number: 43 (02120)

CONDITIONS CONTINUED

21A. The licensee shall not make any false statement, representation, or certification in any application record, report, plan, or other document regarding radiation levels, tests performed or radiation safety conditions or practices. Additionally, the licensee shall not falsify, tamper with, or render inaccurate any monitoring device or method.

21B. Violation of any term, condition, or regulation could subject the licensee to administrative or civil penalty or criminal prosecution, as specified in Title 8, Radiation, of the Article Environment of the Annotated Code of Maryland.

22. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material authorized by this license in accordance with statements representations, and procedures contained in:

- application dated June 4, 2002
- letter with attachment dated January 27, 2003, changing the RSO and deleting a user.
- letter with attachment dated June 19, 2003, adding user.
- facsimile dated July 29, 2005, adding Dr. Zucker.
- **letter received August 3, 2005, deleting authorized users and correcting a name.**

COMAR 26.12.01.01 "Regulations for Control of Ionizing Radiation" shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

FOR THE MARYLAND DEPARTMENT OF THE ENVIRONMENT

August 15, 2005

Roland G. Fletcher, Manager III
Radiological Health Program

BJP 8-15-05 8/23/05

This is to acknowledge the receipt of your letter/application dated

11/7/12, and to inform you that the initial processing which includes an administrative review has been performed.

Amendment (19-31420-01)

☒ There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

---

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 579480.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader