NRC Form 374A (5-84) U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number: 48-13475-01

Docket or Reference number: 030-03490

Amendment No. 31

Methodist Hospital
309 W. Washington Avenue
Madison, WI 53703

In accordance with letter dated September 4, 1985, License Number 48-13475-01 is amended as follows:

Items 6., 7., 8. and 9. are amended to add:

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
G. Gadolinium-153	G. Sealed sources (Lunar Radiation Corp GD Series contained in Lunar Radiation Corp. source holders)	G. 3000 millicuries (2 sources not to exceed 1500 millicuries each)
H. Iodine-125	H. Sealed sources (AECL Model Nos. C-235, C-324 in C-236 source holder, or Amersham Corp. Model No. IMC.P2 contained in Lunar Radiation Corp. source holers)	H. 600 millicuries (2 sources not to exceed 300 millicuries each)

9. Authorized Use

G. One source to be used in a Lunar Radiation Corp. Model DP3 "Spine Scanner" for anlaysis of human bone mineral content.

H. For use in Lunar Radiation Corp. Model SP2 "Forearm Scanner" for analysis of human bone mineral content.

Conditions 12. and 19. are amended to read:

12. Licensed material listed in Item 6 above is authorized for use by, or under the supervision of, the following individual(s) for the materials and uses indicated:

Phillip R. Rank, M.D.	Groups I, II, III, IV and V Xenon-133 In vitro studies Gadolinium-153 and Iodine-125 contained in bone mineral analyzers

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Dennis H. Steffen, M.D.	Groups I, II, III, IV and V, except gold-198 for therapy Xenon-133 In vitro studies Gadolinium-153 and Iodine-125 contained in bone mineraly analyzers
Lawrence Gottleib, M.D.	In vitro studies
James Goodell Olson, M.D.	Groups I, II and III Iodine-131 as iodide in treatment of hyperthyroidism, cardiac dysfunction and thyroid carcinoma Xenon-133 In vitro studies Gadolinium-153 and Iodine-125 contained in bone mineral analyzers
Gerald H. Pietan, M.D.	Groups II and III Xenon-133 Iodine-131 as iodide in treatment of hyperthyroidism, cardiac dysfunction and thyroid carcinoma Phosphorus-32 (soluble) for treatment of polycythemia vera, leukemia, and bone metastases Gadolinium-153 and Iodine-125 contained in bone mineral analyzers
David T. Atwell, M.D.	Groups II and III Xenon-133 Iodine-131 as iodide in treatment of hyperthyroidism, cardiac dysfunction and thyroid carcinoma Phosphorus-32 (soluble) for treatment of ploycythemia vera, leukemia, and bone metastases Gadolinium-153 and Iodine-125 contained in bone mineral analyzers

19. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated January 16, 1985; and letters dated February 28, 1985 and September 4, 1985. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

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Amendment No. 31

Conditions 20., 21. and 22. are added:

20. A. Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.

B. 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 the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.

C. 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 Commission regulations. A report shall be filed within five (5) days of the test with the U. S. Nuclear Regulatory Commission, Region III, 799 Roosevelt Road, Glen Ellyn, Illinois 60137, describing the equipment involved, the test results, and the corrective action taken.

D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

21. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.

22. An individual named in Condition 12. authorized to use bone mineral analyzers shall perform replacement and/or exchange of source holders in accordance with instructions specified in the manufacturers instruction manual.

For the U.S. Nuclear Regulatory Commission

Date _____

Original Signed
By George M. McCann
Materials Licensing Section, Region III

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