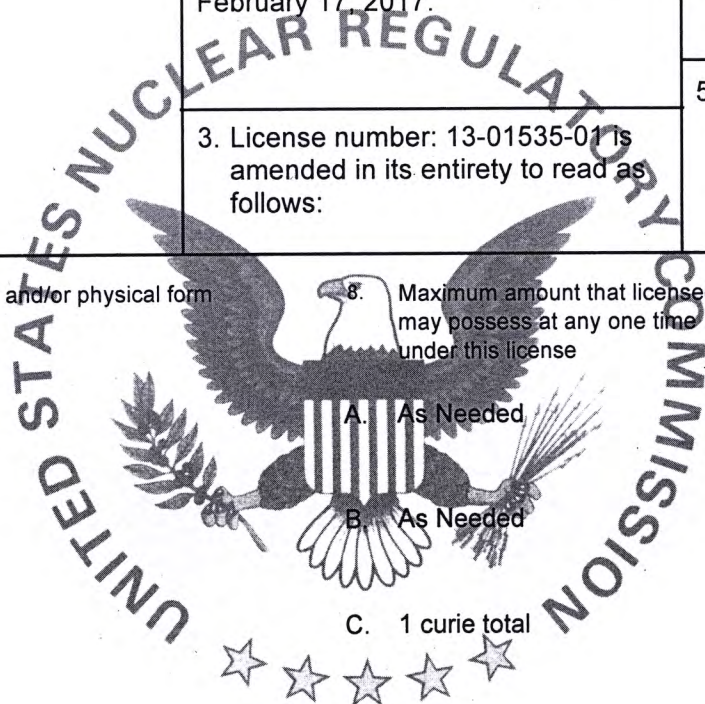


MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 37, 39, 40, 70 and 71, 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 byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

<p style="text-align: center;">Licensee</p> <p>1. QHG of Indiana, Inc.</p> <p>2. 7950 West Jefferson Blvd. Fort Wayne, IN 468041677</p>	<p>In accordance with letter dated February 17, 2017.</p> <p>3. License number: 13-01535-01 is amended in its entirety to read as follows:</p>	<p>4. Expiration Date: August 31, 2025</p> <p>5. Docket No.: 030-01594 Reference No.:</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Any byproduct material permitted by 10 CFR 35.100</p> <p>B. Any byproduct material permitted by 10 CFR 35.200</p> <p>C. Any byproduct material permitted by 10 CFR 35.300</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. As Needed</p> <p>B. As Needed</p> <p>C. 1 curie total</p>	<p>9. Authorized use</p> <p>A. For use in uptake, dilution and excretion studies permitted by 10 CFR 35.100.</p> <p>B. For use in imaging and localization studies permitted by 10 CFR 35.200.</p> <p>C. For any use permitted by 10 CFR 35.300.</p>



**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
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Docket or Reference Number
030-01594

Amendment No. 77

- | | | | |
|---|--|--|---|
| 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 | 9. Authorized use |
| D. Iodine-125 permitted by 10 CFR 35.400 | D. Sealed Sources (Bard, Model Model STM1251; Best Industries, Model Model 2301; Implant Sciences Corp., Model I-Plant Model 3500; IsoAid, LLC, Model Model IAI-125A; Mills Biopharmaceuticals, Inc., Model Model SL-125; SH-125; North American Scientific, Inc., Model Model MED 3631) | D. 1 curie total | D. For any manual brachytherapy procedure permitted by 10 CFR 35.400. |
| E. Palladium-103 permitted by 10 CFR 35.400 | E. Sealed Sources (Best Medical International Inc., Model 2335; North American Scientific, Inc., Model MED 3633; Theragenics Corp., Model TheraSeed 200) | E. 1 curie total | E. For any manual brachytherapy procedure permitted by 10 CFR 35.400. |
| F. Cesium-131 permitted by 10 CFR 35.400 | F. Sealed Sources (IsoRay Medical Inc., Model CS-1) | F. 1 curie total | F. For any manual brachytherapy procedure permitted by 10 CFR 35.400. |
| G. Gadolinium-153 permitted by 10 CFR 35.500 | G. Sealed Sources (Du Pont Merck Pharmaceutical Company, Model Model NES-8412; North American Scientific, Inc., Model Model 3601) | G. Not to exceed 300 millicuries per source and 1200 millicuries total | G. For diagnostic medical use of sealed sources permitted by 10 CFR 35.500 in ADAC VANTAGE devices. |
| H. Any byproduct material permitted by 10 CFR 31.11 | H. Prepackaged Kits | H. 1 millicurie total | H. For use in in-vitro studies. |
| I. Yttrium-90 permitted by 10 CFR 35.1000 | I. Microspheres (AEA Technology/QSA, Inc., Model SIR-Spheres) | I. Not to exceed 189 millicuries per vial and 2 curies total | I. For medical use permitted by 10 CFR 35.1000 in a Sirtex Medical Limited brachytherapy afterloader delivery system. |

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CONDITIONS

10. A. Licensed material may be used or stored at the licensee's facilities located at 7950 West Jefferson Boulevard, Fort Wayne, Indiana.
B. Licensed material listed in Subitem Nos. 6.A. and 6.B. may be used at the licensee's facilities located at 7916 West Jefferson Boulevard, Fort Wayne, Indiana.
11. The Radiation Safety Officer (RSO) for this license is Randall J. Phillips, M.D.
12. Licensed material shall only be used by, or under the supervision of:
- A. Individuals permitted to work as authorized users in accordance with 10 CFR 35.13 and 10 CFR 35.14.
- B. The following individuals are authorized users for the material and medical uses as indicated:
- | <u>Authorized Users</u> | <u>Material and Use</u> |
|------------------------------|--|
| Brett A. Hagedorn, M.D. | 10 CFR 35.100, 35.200, 35.300 and 35.500 |
| John Rock, M.D. | 10 CFR 35.100, 35.200 and 31.11 |
| Deepchand Bajpai, M.D. | 10 CFR 35.300 and 35.400 |
| Rik Stephens, M.D. | 10 CFR 35.100, 35.200, 35.300, 35.500 and 31.11 |
| James C. Wehrenberg, M.D. | 10 CFR 35.100, 35.200, 35.500 and 31.11 |
| James A. Arata, M.D. | 10 CFR 35.100, 35.200, 35.300, 35.500 and 31.11 |
| David B. Janizek, M.D. | 10 CFR 35.100, 35.200, 35.300, 35.500 and 31.11 |
| Christine Anne Tremper, M.D. | 10 CFR 35.100, 35.200, 35.300 (limited to the oral administration of sodium iodide I-131) and 35.500 |
| John Pasalich, M.D. | 10 CFR 35.100, 35.200, 35.300 and 35.500 |
| Stephen R. Phillip, M.D. | 10 CFR 35.100, 35.200, 35.300 and 35.500 |
| Marc Thomas, M.D. | 10 CFR 35.100, 35.200, 35.300 and 35.500 |

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Amendment No. 77

Authorized Users

John L. Borman, M.D.

Michael E. Parker, M.D.

Pamela Lee Strange, M.D.

Joseph R. Decamp, M.D.

Frederick N. Vandeman, M.D.

Andre Byard Stovall, M.D.

Christopher M. Kowalski, M.D.

Nathan D. Comsia, M.D.

Richard W. Sibley, M.D.

Dakshesh S. Patel, M.D.

Rao V.P. Mantravadi, M.D.

Eric V. Heatwole, M.D.

Shilpa Kashyap, M.D.

Stephen Beyer, M.D.

John C. Lucunza, M.D.

Shawn Johnson, M.D.

Jonathan Berger, M.D.

Daniel Branam, M.D.

Eugene Shih, M.D.

Randall J. Phillips, M.D.

Peter C. Hanley, M.D.

Material and Use

10 CFR 35.100, 35.200, 35.300 and 35.500

10 CFR 35.100, 35.200, 35.300 and 35.500

10 CFR 35.100, 35.200, 35.300 and 35.500

10 CFR 35.100, 35.200, 35.300 (limited to the oral administration of sodium iodide I-131 in quantities less than or equal to 33 millicuries) and 35.500

10 CFR 35.100, 35.200, 35.300 (limited to the oral administration of sodium iodide I-131) and 35.500

10 CFR 35.100, 35.200, 35.300, 35.500 and 35.1000 (limited to the yttrium-90 SIR-Spheres delivery system)

10 CFR 35.100, 35.200 and 35.500

10 CFR 35.400

10 CFR 35.100, 35.200, 35.300 and 35.500

10 CFR 35.100, 35.200 and 35.500

10 CFR 35.300 and 35.400

10 CFR 35.100, 35.200, and 35.500

10 CFR 35.100, 35.200, and 35.500

10 CFR 35.300

10 CFR 35.100 and 35.200

10 CFR 35.100, 35.200, and 35.300

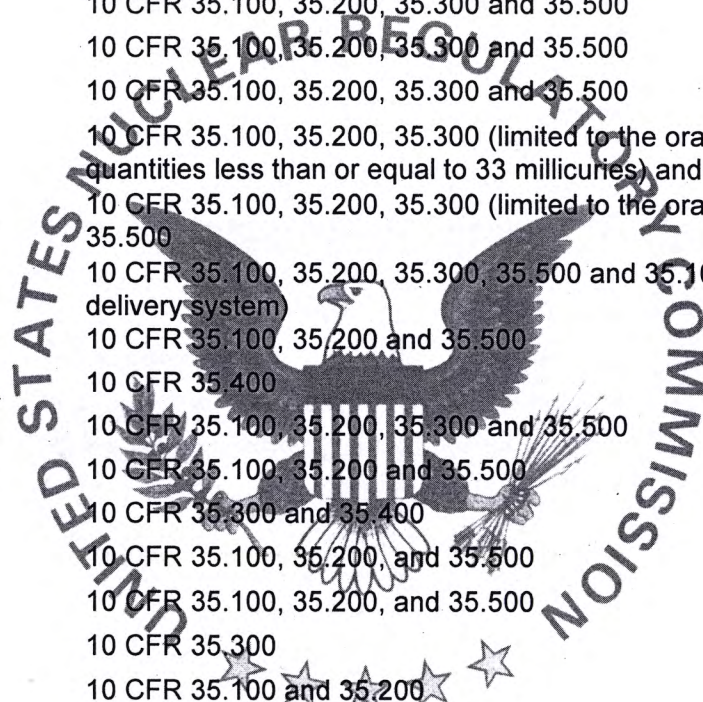
10 CFR 35.100 and 35.200

10 CFR 35.100, 35.200, and 35.300 (limited to the oral administration of sodium iodide I-131 in quantities less than or equal to 33 millicuries)

10 CFR 35.100 and 35.200

10 CFR 35.100, 35.200, 35.300, 35.500, 35.1000 (limited to the yttrium-90 SIR-Spheres delivery system) and 31.11

10 CFR 35.100 and 35.200



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Amendment No. 77

Authorized Users

Ravi No. Bathina, M.D.

Sanjiv G. Aggarwal, M.D.

Scott E. Mattson, D.O.

Revati J. Ghatnekar, M.D.

Krishnan Ramani, M.D.

Mark A. Meier, M.D.

Venkata Rama Prasad Nalamolu,
M.D.

Sabeena Ramrakhiani, M.D.

Thomas S. Chung, M.D.

Jeffery J. Freeman, M.D.

Ryan Buss, M.D.

Andrew V. Barger, M.D.

Richard B. Collins, D.O.

Vivek Sharma, M.D.

Benjamin A. Tourkow, M.D.

Mark A. Brinkman, M.D.

Andrew J. Norton, M.D.

Mark C. Ranck, M.D.

Wesley A. Russell, M.D.

Indu Rekha Meesa, M.D.

Edward K. Yi, M.D.

Joel Heitman, M.D.

Material and Use

10 CFR 35.100 and 35.200

10 CFR 35.100 and 35.200

10 CFR 35.100 and 35.200

10 CFR 35.100 and 35.200

10 CFR 35.200

10 CFR 35.200

10 CFR 35.200

10 CFR 35.100 and 35.200

10 CFR 35.300 and 35.400

10 CFR 35.100, 35.200, and 35.300 (limited to the oral administration of sodium iodide I-131)

10 CFR 35.100, 35.200, and 35.300 (limited to the oral administration of sodium iodide I-131)

10 CFR 35.100, 35.200 and 35.300 (limited to the oral administration of sodium iodide I-131 in quantities less than or equal to 33mci)

10 CFR 35.100 and 35.200

10 CFR 35.100 and 35.200

10 CFR 35.100, 35.200 and 35.300 (limited to the oral administration of sodium iodide I-131)

10 CFR 35.100, 35.200, and 35.300 (limited to the oral administration of sodium iodide I-131 in quantities less than or equal to 33 millicuries)

10 CFR 35.100 and 35.200

10 CFR 35.400

10 CFR 35.400

10 CFR 35.100, 35.200 and 35.300 (limited to the oral administration of sodium iodide I-131)

10 CFR 35.100, 35.200 and 35.300 (limited to the oral administration of sodium iodide I-131)

10 CFR 35.100 and 35.200



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Authorized Users

Nathan A. Cannon, M.D., Ph.D.

Material and Use

10 CFR 35.400

13. The manufacturer's training for TheraSpheres shall include operation of the delivery system, safety procedures, and clinical use of TheraSpheres.
14. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. This license condition applies only to those procedures that are required to be submitted in accordance with the regulations. Additionally, this license condition does not limit the licensee's ability to make changes to the radiation protection program as provided for in 10 CFR 35.26 and applicable guidance updates for 10 CFR 35.1000 uses. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Application dated May 12, 2015 (ML15146A271)
 - B. Letter dated May 12, 2015 (ML15146A271)
 - C. Letter dated June 18, 2015 (ML15175A296)
 - D. Letter dated February 17, 2017, excluding reference to request for Dr. Ibrahim to use Y-90 SIR-Spheres (ML17201J344)

Date: October 16, 2017

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

By: Colleen Carol CaseyColleen Carol Casey
Region 3