

**From:** Gabriel, Sandra  
**Sent:** Tuesday, January 17, 2012 1:52 PM  
**To:** Ian Crooks (HLRCC)  
**Subject:** Additional information for NRC license amendment request, mail control 576428

Licensee: The Harold Leever Regional Cancer Center  
License Number: 06-31416-01  
Docket Number: 03038335  
Mail Control: 576428

To: Ian Crooks, Medical Physicist

Please provide the following additional information regarding the request to add HDR:

- 1) Regarding the request to name Douglas Housman, M.D. as authorized user (AU):
  - a) Table 3d on page 3-4 of the submitted Form 313A(AUS) showed Gil Cohen as the supervising individual for Dr. Housman's work experience required by 10 CFR 35.690(b)(1)(ii). We noted that Gil Cohen is a physicist at Memorial Sloan Kettering Cancer Center (MSKCC), however the regulation requires supervision by an HDR AU physician. We contacted MSKCC to discuss this. MSKCC then contacted Dr. Housman, who reportedly submitted a new Form 313A(AUS) to them for preceptor signature. MSKCC said today that they should be returning this to Dr. Housman in the next few days.
  - b) Suzanne Wolden signed the submitted Form 313A(AUS). The accompanying letter from MSKCC stated that Dr. Wolden is an authorized user under that broad scope license, but did not state her authorized uses. MSKCC said today that they will return an updated letter to Dr. Housman.
  - c) The description of Dr. Housman's training and supervised work experience did not state which HDR device(s) he used. Please provide documentation that he received training on Nucletron Model 106.990, including copies of any vendor training certificates.
- 2) Item 8 and Appendix B of your request described initial training for HDR AUs, authorized medical physicists (AMPs), and device operators. Please confirm that all AUs, AMPs, and device operators will participate in drills of emergency procedures, initially and at least annually, as required by 10 CFR 35.610(e).
- 3) Appendix B-3 of your request described your HDR emergency procedures.
  - a) Please confirm that you will update these procedures to include:
    - (i) Names and telephone numbers of the AU, AMPs and RSO to be contacted if the unit or console operates abnormally, as required by 10 CFR 35.610(a)(4)(iii).

- (ii) The process for restricting access to the treatment room in an emergency to minimize the risk of inadvertent exposure (e.g. lock the door or post a guard), as required by 10 CFR 35.610(a)(4)(ii).
- b) Section 4.9.5 of your emergency procedures addressed emergency removal of a button end flexible implant tube and describes use of an orthopedic wire cutter. Please confirm that you will add an orthopedic wire cutter to your emergency response equipment when using single leader button end flexible implant tubes.
- 4) Appendix C-5 of your request described HDR warning systems and restricted area controls. Please clarify if there will be a warning light or “radiation on” indicator outside the treatment room door.
- 5) Section C-4B of your request included spot-check procedures.
  - a) Please confirm that the “Source status indicators” procedure will be updated to add a check of the status of the source exposure indicator lights on the HDR device and in the facility (e.g., radiation-on indicator at treatment room door), as required by 10 CFR 35.643(d)(2).
  - b) Please consider the adequacy of your 5% tolerance for dwell time accuracy.
- 6) Section C-4B of your request also included full calibration procedures. Please note that these are not required to be submitted, were not reviewed in detail, and will not be considered to be part of your license. However, in order to comply with 10 CFR 35.633(b)(5), please ensure that your timer linearity test covers the full typical range of use, including consideration of long dwell times just prior to source exchange. Use of radiation measurements is preferred for timer linearity determinations.
- 7) Appendix D-1 of your request stated that personnel will be monitored with whole body individual dosimeters. Please confirm that you will consider the need to provide extremity dosimeters for individuals who may be called upon to respond to an emergency involving an unretracted or stuck source.

Please provide a written response within 30 days under signature of senior management. You may respond to my attention in writing by letter or fax (610-337-5269), referencing mail control 576428. Alternatively, you may scan a copy of the signed response and send it as a .pdf attachment to an e-mail. If we do not receive a reply within 30 calendar days from the date of this e-mail, we will assume that you do not wish to pursue your application.

Thank you for your cooperation. Please contact me by telephone or e-mail with any questions.

Sandy Gabriel  
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