



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

November 16, 2007

VOID SHEET

TO: License Fee and Accounts Receivable Branch

FROM: Region IV, DNMS, NMLB

SUBJECT: VOIDED Amendment

Applicant: DMS Imaging, Inc.

License No.: 40-32477-01

Control No.: 471466

Docket No.: 030-36404

Reason for Void: The licensee did not provide adequate documentation to support the amendment, as requested in NRC RAI letter dated August 22, 2007 (ML072340686). The amendment request is voided without prejudice and when sufficient documentation is provided by the licensee, then the license amendment request will be approved.

Reviewer: *Rachel S. Browder*  
Rachel S. Browder

Date: November 16, 2007

Licensing Assistant: Colleen Murnahan

Date:

Attachment:

Official Record Copy of Voided Action

or

ML Control No. of Voided Action:

**FOR LFMB USE ONLY**

Refund Authorized and Processed

☐ No Refund

☐ Fee Exempt or Fee Not Required

Comments:

Log Completed ☐

Processed By: \_\_\_\_\_

ML073240397

## **Procedures for Recognition of Foreign Trained Physicians and Physicists Applying for AU and AMP Status**

The purpose of this procedure is to provide guidance on making appropriate decisions regarding approval of foreign trained physicians and physicists applying for AU and AMP status under the alternate pathway. The licensee will submit the appropriate NRC Form 313A along with the license amendment request to the Regional offices. The Regional license reviewers will verify that the criteria described below is met for approval of foreign trained physicians and physicists as AUs and AMPs.

### **Foreign Trained Physicians**

For physicians who received their training outside of the United States, the license reviewer should verify that:

- 1.) The work experience of the documented training and experience is done under the supervision of an AU (as defined in 10 CFR 35.2) licensed in the U.S.
- 2.) The written attestation is obtained from an appropriately qualified AU preceptor listed on an NRC or Agreement State license or broad scope permit.

### **Foreign Trained Physicists**

For physicists who received their training outside of the United States, the license reviewer should verify that:

- 1.) The masters and/or doctoral degrees from outside of the US are from an accredited college or university. The license reviewer should refer to the web site of the institution to determine whether the college/university is accredited. License reviewers should also refer to the web site for the International Organization for Medical Physicists which provides a global listing of graduate education programs in medical physics and the associated accreditation status. A Technical Assistance Request (TAR) should be submitted if the license reviewer is uncertain about the validity of the degree.
- 2.) Degrees other than physics, medical physics, other physical science, engineering and applied mathematics are equivalent to one of these listed degrees. The license reviewer should request a transcript from the applicant. If it is unclear whether the degree is equivalent to the degrees listed in 10 CFR 35.51(b)(1), then a TAR should be submitted to NRC HQ.
- 3.) The work experience of the documented training and experience is completed under the supervision of an individual who meets the requirements for an AMP (as defined in 10 CFR 35.2). The Regions should seek additional guidance from NRC HQ if it is unclear whether the full time work experience in medical physics is obtained under the supervision of an individual who meets the requirement for an authorized medical physicist.
- 4.) The written attestation is obtained from an AMP preceptor listed on an NRC or Agreement State license or broad scope permit.

**From:** "Graves, Joe M" <joe-graves@uiowa.edu>  
**To:** <rsb3@nrc.gov>  
**Date:** 11/19/2007 1:39:09 PM  
**Subject:** RE: au at Iowa City

Rachel,

Dr. Bushnell is approved as an authorized user for use of unsealed by-product material in accordance with 10CFR 35.100, 35.200, and 35.300 (including I-131 < & > 33mCi) on both the Iowa City VA's broadscope permit # 14-00821-01 and the University of Iowa's broadscope agreement state license # 0037-1-52-AAB. If you have any questions or require additional information, please contact me.

Joe M. Graves  
Radiation Safety Officer  
University of Iowa & VA Medical Center  
Phone: 319-335-8517  
Fax: 319-335-7564  
joe-graves@uiowa.edu

*Additional Info.  
that I received  
after the void  
sheet. RSB*

---

From: Williams, Gary E [mailto:Gary.Williams3@va.gov]  
Sent: Monday, November 19, 2007 10:30 AM  
To: rsb3@nrc.gov  
Cc: Graves, Joe M  
Subject: au at Iowa City

Iowa City, IA Joe Graves 319-335-8501 319-335-7564

Iowa City, IA Joe Graves joe-graves@uiowa.edu

Rachel,

Please contact Joe Graves to confirm AU.

Gary E. Williams  
National Health Physics Program  
Veterans Health Administration  
North Little Rock, Arkansas  
(501) 257-1572

**CC:** "Williams, Gary E" <Gary.Williams3@va.gov>

**Mail Envelope Properties** (4741E645.B58 : 10 : 2904)

**Subject:** RE: au at Iowa City  
**Creation Date** 11/19/2007 1:38:37 PM  
**From:** "Graves, Joe M" <joe-graves@uiowa.edu>

**Created By:** joe-graves@uiowa.edu

**Recipients**

nrc.gov  
ARL\_PO.ARL\_DO  
RSB3 (Rachel Browder)

va.gov  
Gary.Williams3 CC (Gary E Williams)

**Post Office**  
ARL\_PO.ARL\_DO

**Route**  
nrc.gov  
va.gov

<b>Files</b>	<b>Size</b>	<b>Date &amp; Time</b>
MESSAGE	1038	11/19/2007 1:38:37 PM
TEXT.htm	3767	
Mime.822	7155	

**Options**

**Expiration Date:** None  
**Priority:** Standard  
**ReplyRequested:** No  
**Return Notification:** None

**Concealed Subject:** No  
**Security:** Standard

**Junk Mail Handling Evaluation Results**

Sender: joe-graves@uiowa.edu  
Message is eligible for Junk Mail handling  
This message was not classified as Junk Mail  
Sender e-mail address is not in recipient's personal address book

**Junk Mail settings when this message was delivered**

Junk List is not enabled  
Junk Mail using personal address books is not enabled  
Block List is enabled



<b>Operations office:</b>	<b>Corporate office:</b>
109 S. Petro Avenue	2101 N. University Drive
Sioux Falls, SD 57107	Fargo, ND 58102
Phone: 605-330-9060	Phone: 701-237-9073
800-333-0365	800-437-4628
Fax: 877-595-8108	Fax: 800-848-0990

[www.dmsghg.com](http://www.dmsghg.com)

October 10, 2007

U.S. Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, Texas 76011-4005

RECEIVED  
OCT 15 2007  
DNMS

Dear Sir or Madam:

Re: NRC Radioactive Material License #40-32477-01

This letter is in response to the request for additional information by the Nuclear Regulatory Commission from correspondence dated August 22, 2007. DMS originally requested adding Dr. Ovar Thor Jonsson as an authorized user on August 16, 2007. The enclosed letter is the perceived equivalent for information required on NRC Form 313A.

If you have any questions or need additional information please contact me at 800-333-0365 extension 2610.

Sincerely,

Michelle White  
Corporate Radiation Safety Officer  
DMS Imaging

**IOWA CITY DEPARTMENT OF VETERANS AFFAIRS (VA) MEDICAL CENTER****Medical Center****601 Highway 6 West, Iowa City, IA 52246-2208****Community-Based Outpatient Clinics****2979 Victoria Street, Bettendorf, IA 52722-2784****200 Mercy Drive, Suite 106, Dubuque, IA 52001-7343****387 E. Grove Street, Galesburg, IL 61401-3728****721 Broadway, Quincy, IL 62301-2708****1015 S. Hacker, Waterloo, IA 50701-3500****Coralville Clinic: 520 10<sup>th</sup> Avenue, Suite 200, Coralville, IA 52241-1923**

September 18, 2007

In Reply Refer To: 636A8/115

Certification Board of Nuclear Cardiology  
19562 Club House Road  
Montgomery Village, MD 20882

Dear Sir or Madam:

Dr. Ovar Thor Jonsson has completed a training program in nuclear cardiology that meets the requirements for Level 2 training as outlined in the ACCF/ASNC COCATS Guidelines for Training in Nuclear Cardiology, revised 2006 within an accredited Cardiovascular Disease Program.

The above-named applicant completed a minimum of 80 hours of classroom and laboratory training that meets the Nuclear Regulatory Commission (NRC) requirements as an INTEGRAL part of his/her fellowship/residency program.

Dr. Jonsson attended Dr. Mark Madsen's lectures on Physics and Instrumentation the entire academic year as well as nuclear rotations, and combined Cardiology/Nuclear Medicine conferences.

Sincerely,

DAVID L. BUSHNELL, M.D.  
Chief, Diagnostic Imaging Service  
Department of Veterans Affairs  
Medical Center  
Iowa City, IA 52246

Professor Radiology  
University of Iowa Hospitals and Clinics

Agreement State License Number: 14-00822-01  
Expiration Date: September 30, 2009

## ACCEPTANCE REVIEW MEMO (ARM)

Licensee: DMS Imaging

License No.: 40-32477-01

Docket No.: 030-36404

Mail Control No.: 471466

Type of Action: Amend

Date of Requested Action: 08-06-07

Reviewer  
Assigned:

ARM reviewer(s): Rachel

Response	Deficiencies Noted During Acceptance Review
	<p>[ ] Open ended possession limits. Limit possession. Submit inventory.</p> <p>[ ] Submit copies of most recent leak test results.</p> <p>[ ] Add - delete IC license condition. Add IC paragraph in cover letter.</p> <p>[ ] Split license from cover letter. Add SUNSI marking to license.</p> <p>[ ] Ask the licensee if they have any type-amount of EPAct Material.</p>

Reviewer's Initials: BBB

Date: 11/16/07

- ☐ Yes ☐ No      Unrestricted release Group 2 or >: Transfer memo to FCDB within 10 days.
- ☐ Yes ☐ No      Decommissioning notification should be completed within 30 days.
- ☐ Yes ☐ No      Termination request < 90 days from date of expiration
- ☐ Yes ☐ No      Expedite (medical emergency, no RSO, location of use/storage not on license, RAM in possession not on license, other)
- ☐ Yes ☐ No      TAR needed to complete action.

Branch Chief's and/or HP's Initials: \_\_\_\_\_

Date: \_\_\_\_\_

### SUNSI Screening according to RIS 2005-31

☐ Yes ☒ No      **Non-Publicly Available, Sensitive** if any item below is checked

General guidance:

- \_\_\_\_\_ RAM = or > than Category 3 (Table 1, RIS 2005-31), use Unity Rule
- \_\_\_\_\_ Exact location of RAM (whether = or > than Category 3 or not)
- \_\_\_\_\_ Design of structure and/or equipment (site specific)
- \_\_\_\_\_ Information on nearby facilities
- \_\_\_\_\_ Detailed design drawings and/or performance information
- \_\_\_\_\_ Emergency planning and/or fire protection systems

Specific guidance for medical, industrial and academic (above Category 3):

- \_\_\_\_\_ RAM quantities and inventory
- \_\_\_\_\_ Manufacturer's name and model number of sealed sources & devices
- \_\_\_\_\_ Site drawings with exact location of RAM, description of facility
- \_\_\_\_\_ RAM security program information (locks, alarms, etc.)
- \_\_\_\_\_ Emergency Plan specifics (routes to/from RAM, response to security events)
- \_\_\_\_\_ Vulnerability/security assessment/accident-safety analysis/risk assess
- \_\_\_\_\_ Mailing lists related to security response

Branch Chief's and/or HP's Initials: BBB

Date: 11/16/07

471466

ML073940397

## Pre-Licensing Screening

### Applicant Information:

Control No. 471466

Name: DMS Imaging	Type of Request: Amend Program Code(s):	
Location: ND	License No.: 40-32477-01	Docket No.: 030-36404

### STEP 1—Radioactive Materials and Quantities Requested:

<b>Instructions for Step 1: Complete Step 1 for all applications.</b> If all your responses in Step 1 are "No" then do not complete Step 2 (Screening Criteria). Sign and date the completed step-sheet and add it as the sensitive and non-publicly available OAR in ADAMS. If a "yes" response is indicated for any item in Step 1, also complete Step 2. If the type of use is subject to a Security Order or the requirements for increased controls, complete Step 3 (Item A or Item B) without delay.		Yes or No
A.	The request is from a new applicant.	No
B.	NUREG-1556, Volume 20, Section 4.9 indicates a licensing site visit is needed for the requested type of use, e.g., (1) Type A broad scope license, (2) panoramic irradiator containing > 10000 curies, (3) manufacturers or distributors using unsealed radioactive material or significant quantities of sealed material, (4) radioactive waste brokers, (5) radioactive waste incinerators, (6) commercial nuclear laundries, and (7) any other application that in the judgement of the reviewer and cognizant supervisor involves complex technical issues, complex safety questions, or unprecedented issues that warrant a site visit.	No
C.	The applicant requested certain radionuclides and quantities that equal or exceed the Risk Significant Quantity (TBq) values in the table, below, that have been "highlighted" by the reviewer	No

### Table of Risk Significant Quantities

(Category 2 Quantities, IAEA Safety Guide No. RS-G-1.9, Categorization of Radioactive Sources, August 2005)

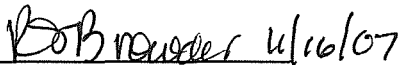
Radionuclide	Risk Significant Quantity (TBq <sup>1</sup> )	Risk Significant Quantity (Ci <sup>1</sup> )	Radionuclide	Risk Significant Quantity (TBq <sup>1</sup> )	Risk Significant Quantity (Ci <sup>1</sup> )
Am-241	0.6	16	Pm-147	400	11,000
Am-241/Be	0.6	16	Pu-238	0.6	16
Cf-252	0.2	5.4	Pu-239/Be	0.6	16
Cm-244	0.5	14	Ra-226 <sup>2</sup>	0.4	11
Co-60	0.3	8.1	Se-75	2	54
Cs-137	1	27	Sr-90 (Y-90)	10	270
Gd-153	10	270	Tm-170	200	5,400
Ir-192	0.8	22	Yb-169	3	81

<sup>1</sup> The primary values are TBq. The curie (Ci) values are for informational purposes only.

<sup>2</sup> The Atomic Energy Act, as amended by the Energy Policy Act of 2005, authorizes NRC to regulate Ra-226 and NRC is in the process of amending its regulations for discrete sources of Ra-226.

Calculations of the Total Activity or the Unity Rule are attached to document whether or not the screening criteria in Step 2 were also completed to evaluate the application. <b>NOTE—If an amendment of an existing license is being requested, the calculations will include the previously authorized quantities for the radionuclide(s).</b>	Yes, No, or Not Applicable (NA)
Total Activity—multiple activities are requested for a single radionuclide and the sum of the activities equals or exceeds the quantity of concern for the radionuclide	N/A
Unity Rule—multiple radionuclides are requested and the sum of the ratios equals or exceeds unity, e.g., [(total activity for radionuclide A) ÷ (risk significant quantity for radionuclide A)] + [(total activity for radionuclide B) ÷ (risk significant quantity for radionuclide B)] ≥ 1.0.	N/A

### Signature and Date for Step 1:

  
 License Reviewer and Date





<b>Operations office:</b>	<b>Corporate office:</b>
109 S. Petro Avenue	2101 N. University Drive
Sioux Falls, SD 57107	Fargo, ND 58102
Phone: 605-330-9060	Phone: 701-237-9073
800-333-0365	800-437-4628
Fax: 877-595-8108	Fax: 800-848-0990

[www.dmsimg.com](http://www.dmsimg.com)

RECEIVED

AUG 20 2007

DNMS

August 16, 2007

Nuclear Regulatory Commission  
Region IV  
611 Ryan Plaza Drive, Suite 400  
Arlington, Texas 76011-8064

To Whom It May Concern:

Please amend our radioactive material license number 40-32477-01 license condition 12.B. to add Dr. Ovar Thor Jonsson as an authorized user for material and use of 10 CFR 35.200 limited to nuclear cardiology studies only. Included is the documentation that supports Dr. Jonsson's accreditation and training.

If you need additional information or have questions please contact me at 800-333-0365.

Sincerely,

Traci Hollingshead  
Corporate Radiation Safety Officer  
DMS Imaging



DEPARTMENT OF VETERANS AFFAIRS IOWA CITY HEALTH CARE SYSTEM

Medical Center

601 Highway 6 West, Iowa City, IA 52246-2008

Community-Based Outpatient Clinics

2979 Victoria Street, Bettendorf, IA 52722-6702

250 Mercy Drive, Suite 106, Dubuque, IA 52201

387 E. Grove Street, Galesburg, IL 61401

1707 N. 12<sup>th</sup> Street, Quincy, IL 62301

1015 S. Hackett, Waterloo, IA 50703

April 16, 2007

In Reply Refer To: 636A8/115


Certification Board of Nuclear Cardiology  
19562 Club House Road  
Montgomery Village, MD 20882

Dear Sir or Madam:

Dr. Orvar Thor Jonsson has completed a training program in nuclear cardiology that meets the requirements for Level 2 training as outlined in the ACCF/ASNC COCATS Guidelines for Training in Nuclear Cardiology, revised 2006 within an accredited Cardiovascular Disease Program.

Dr. Jonsson is competent to independently function as an authorized use under NRC 10 CFR 35.200 uses.

Sincerely,



DAVID BUSHNELL, M.D.  
Chief, Diagnostic Imaging Service  
Department of Veterans Affairs  
Medical Center  
Iowa City, IA 52246

Professor Radiology  
University of Iowa Hospitals and Clinics

Agreement State License Number: 14-00822-01  
Expiration Date: September 30, 2009

# The State Board of Medical Examiners



State of  
South Dakota

Certificate No. 5989

This is to Certify that

Orvar Thor Jonsson

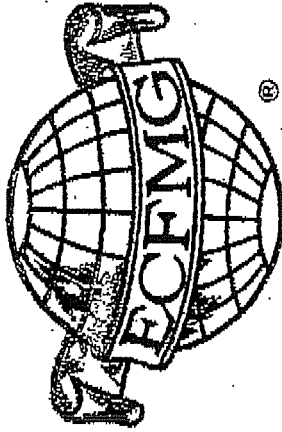
is a licensed Physician & Surgeon (MD) under the provisions of the laws of the State of South Dakota and is entitled to practice medicine in all its branches.  
Said license granted by Endorsement

In witness whereof, we have hereunto set our hands and  
affixed the Seal of said Board at Snowy Falls,  
S. Dak. This 27th day of November, in the  
year of Our Lord Two Thousand six.



Robert M. Starnes, MD  
President

# EDUCATIONAL COMMISSION FOR FOREIGN MEDICAL GRADUATES



CERTIFIES THAT

ORVAR THOR JONSSON

HAS SATISFIED ALL THE REQUIREMENTS OF THE COMMISSION,  
SUCCESSFULLY PASSED ITS EXAMINATIONS AND HAS BEEN AWARDED THIS CERTIFICATE.

CERTIFICATE NUMBER 0-614-383-8

MEDICAL EXAMINATION

BASIC SCIENCE

APRIL 8, 2000

CLINICAL SCIENCE

SEPTEMBER 9, 2000

ENGLISH EXAMINATION

AUGUST 12, 2000

VALID THROUGH

CLINICAL SKILLS ASSESSMENT DECEMBER 8, 2000

VALID THROUGH

CERTIFICATE NUMBER

0-614-383-8

ENGLISH EXAMINATION

August 12, 2000

VALID INDEFINITELY

CERTIFICATE NUMBER

0-614-383-8

CLINICAL SKILLS

December 8, 2000

VALID INDEFINITELY

*Adrian Williams*

CHAIRMAN, BOARD OF TRUSTEES

*Henry S. Fung, MD*

PRESIDENT, CHIEF EXECUTIVE OFFICER

DATE ISSUED JANUARY 24, 2001

07/23/2007 11:34 FAX  
 SSN 480-31-8920  
 Cardiovascular Fellowship Applicant



**HÁSKÓLI ISLANDS**  
 Faculty of Medicine  
 University of Iceland

Reykjavík, October 9<sup>th</sup> 2002.

This is to certify, that Örvar Thor Jónsson, born December 17<sup>th</sup> 1972 was registered in the Medical School, Faculty of Medicine, University of Iceland in 1992 and graduated in June 1998. The degree conferred was cand. med. et chir., which is the equivalent of the M.D. at medical school in the U.S.A. and the M.B. in the U.K.

It is a pleasure for me to state that Örvar Thor Jónsson was a diligent, interested and conscientious student throughout his course at the Medical School. He excelled in chemistry, anatomy, surgery and virology and received good marks for his fourth year medical student research project. The project was on the control of vascular induction in breast cancer and VEGF production, done in the laboratories of the Icelandic Cancer Society, a research institution allied to the Medical School. His final average grade was 8.39 which ranks him number 13 in a graduating class of 31 students

He did in general reach high and up to the highest marks in his clinical work during the internship year at the various departments of the Landspítalinn University Hospital, where he was rated as a capable and hard-working young doctor who has enjoyed good relations to patients and fellow staff.

On the following page we list the individual grades he received at Medical School and the ranking for each one. Grades 5.00 to 5.99 are considered Third Class. 6.00 to 7.24 are Second Class. 7.25 to 8.99 are First Class. 9.00 to 10.00 are First Class with Distinction.

Reynir Tómas Geirsson, MD, PhD, FRCOG,  
 Dean of the Faculty of Medicine,  
 University of Iceland.



# THE AMERICAN BOARD OF INTERNAL MEDICINE

INCORPORATED 1936

ATTESTS THAT

**Orvar Thor Jonsson**

HAS MET THE REQUIREMENTS OF THIS BOARD AND IS HEREBY

CERTIFIED FOR THE PERIOD 2004 THROUGH 2014

AS A DIPLOMATE IN

## INTERNAL MEDICINE

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David S. Swain  
Abraham Verghese  
Donald C. Hansen  
D. B. B.

NUMBER 225816

2004

(FOR LFMS USE)  
INFORMATION FROM LTS

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.....
Program Code: 02220
Status Code: 0
Fee Category: 3P 7C
Exp. Date: 20111231
Fee Comments:
Decom Fin Assur Reqd: N
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