

# Children's Hospital of Michigan

**DMC** DETROIT MEDICAL CENTER

Herman B. Gray, MD, MBA, FAAP  
President

3901 Beaubien  
Detroit, MI 48201-2196

July 22, 2013

**United States Nuclear Regulatory Commission**  
Region III, Materials Licensing  
2443 Warrenville Road  
Lisle, IL 60532-4352

RE: Amendment to NRC License No. 21-03298-05  
Children's Hospital of Michigan

Dear Sir/Madam:

We would like to amend our current NRC license to reflect the following changes.

**Item #1** Please list **Chad Grant** as the current Radiation Safety Officer on our NRC license. We have included the following for your review:

- RSO / Management Agreement Letter
- RSO Duties and Responsibilities

Please note that Mr. Grant was previously listed as the RSO on this license. Please see amendment #42 of our NRC License.

If you have any questions or require additional information, please contact our physics consultant, James Botti at 734-662-3197.

Sincerely,



**Herman B. Gray, M.D., MBA**  
Children's Hospital of Michigan

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[www.childrensdmc.org](http://www.childrensdmc.org)

## **RADIATION SAFETY OFFICER AUTHORITY, DUTIES AND RESPONSIBILITIES**

The Radiation Safety Officer (RSO) shall:

1. Have the authority to implement the Radiation Protection Program as referenced in 10 CFR 20.1101.
2. Have the authority, organizational freedom, time, resources, and management prerogative to:
  - a. Identify radiation safety problems;
  - b. Initiate, recommend or provide corrective actions,
  - c. Stop unsafe operations; and,
  - d. Verify implementation of corrective actions.
3. Investigate deviations from the radiation safety practices approved by facility management and/or the Radiation Safety Committee, if applicable.
4. Collect in a centralized location, executive management approved procedures that can include policy and technical issues which, would makeup the Radiation Protection Program as follows:
  - a. Authorization for the purchase of radioactive material.
  - b. Receipt and opening of packages containing radioactive material.
  - c. Storage of radioactive material.
  - d. Inventory control of radioactive material.
  - e. Safe use of radioactive material.
  - f. Emergency procedures in the event of loss, theft, etc.
  - g. Periodic radiation surveys and wipe tests
  - h. Checks of radiation survey and other radiation safety instruments.
  - i. Disposal of radioactive material.
  - j. Personnel training of those who work in or frequent areas of radioactive material use or storage.
5. Oversee a record system of the Radiation Protection Program per 10 CFR 20.2102 to include at least the following:

The provisions of the Radiation Protection Program until the license is terminated by the NRC such as:

- a. All records, reports, written policies and procedures required by regulatory agencies concerning radioactive material.
- b. A copy of the regulations governing the possession, use and disposal of licensed material, such as Title 10 Code of Federal Regulations.
- c. Audits and other reviews of the Radiation Protection Program content and implementation for a period of three (3) years after the record is made.

6. Periodically evaluate "action levels" for continued appropriateness to ensure compliance with 10 CFR 20.1501 and 1502 for the following:
  - a. Personnel exposure investigation levels
  - b. Area surveys dose rate and contamination levels
  - c. Bioassays, if necessary
  - d. Radioactive effluent concentrations, if necessary
  
7. Review the following Radiation Protection Program records, if applicable:
  - a. Sealed source inventories
  - b. Sealed source leak tests
  - c. Dose calibrator linearity tests
  - d. Dose calibrator accuracy tests
  - e. Dose calibrator geometrical variation tests
  - f. Occupational radiation exposure reports
  - g. Medical event documentation
  - h. Spill / incident reports for cause and corrective action
  - i. Dose rate and contamination survey results
  - j. Changes in the radiation safety program
  
8. Ensure the use of reasonable practices and controls to strive to maintain doses to workers and to the public are ALARA, in compliance with 10 CFR 20.1101(b).
  
9. Review with facility management at least annually of the content of the Radiation Protection Program and determine if the written program is being implemented in compliance with 10 CFR 20.1101(c).
  
10. Ensure as a part of the ALARA effort that individual members of the public shall not receive a Total Effective Dose Equivalent (TEDE) of more than 10 mrem (0.1 mSv) per year from airborne radioactive material releases as per 10 CFR 20.1101(d) as necessary.
  
11. Be a member of the Radiation Safety Committee (RSC), if applicable, that will oversee all uses of byproduct material permitted by the license as per 10 CFR 35.24(f).

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Herman B. Gray, MD, MBA, FAAP  
President

3901 Beaubien  
Detroit, MI 48201-2196

July 22, 2013

Attention: Chad Grant  
Radiation Safety Officer

Re: Radiation Safety Officer / Executive Management  
Letter of Understanding

Dear Mr. Grant:

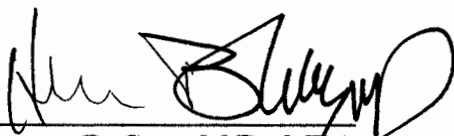
You have been appointed the Radiation Safety Officer (RSO) of this facility. This "Letter of Understanding" has been prepared to demonstrate that you willingly have accepted the duties and responsibilities of this position. I understand that my duties in this position include the following:

- Assume responsibility for implementing the Radiation Protection Program
- Ensure that radiation safety activities are being performed in accordance with our own approved procedures and all regulatory requirements.

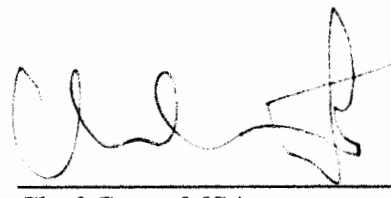
The executive management of this facility agrees to provide you as RSO:

- Specific written notation of your authority, duties and responsibilities.
- Sufficient authority, organizational freedom, time, resources and management prerogative to:
  1. Identify radiation safety problems;
  2. Initiate, recommend, or provide corrective actions;
  3. Stop unsafe operations; and,
  4. Verify implementation of corrective actions.

Sincerely,



Herman B. Gray, M.D., MBA  
Chief Executive Officer



Chad Grant, MSA  
Radiation Safety Officer

CHILDREN'S HOSPITAL ADMINISTRATION

**DMC**

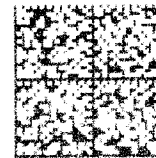
**Children's Hospital  
of Michigan**

3901 Beaubien  
Detroit, MI 48201-2119

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**UNITED STATES NUCLEAR  
REGULATORY COMMISSION  
Region III, Office of Mtrls Licensing  
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Lisle, IL 60532-4352**

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