WCMC/ NYPH Radiation Dosimetry Program

Overview
The Weill Cornell Medical College / New York Presbyterian Hospital Personnel Radiation Monitoring Program (Radiation Dosimetry Program) plays an integral role in assuring a safe environment for all employees working with sources of ionizing radiation.

In order to provide the most effective service Environmental Health and Safety is announcing changes to the method of distribution and collection of dosimeters. In addition EHS is updating the process to request additions, deletions and other dosimetry related functions.

EHS will manage and fulfill dosimetry requests. In addition dosimeter distribution will now occur via Interoffice Mail. All dosimetry related forms can be found on the EHS website:

http://weill.cornell.edu/ehs/health_physics/forms.html

Applicability
This Update applies to all WCMC / NYPH hospital and medical college personnel who receive and/or distribute radiation dosimeters. Failure to properly administer and wear dosimetry badges as well as misadministration of Unused, Unreturned, and Void Dosimeters adversely impacts Departments and personnel including:

1. Potential unidentified radiation exposures and hazards of workers.
3. Increased dosimetry badge operating costs and fees.

Responsibilities
Environmental Health and Safety (EHS) will administer the WCMC/ NYPH dosimetry program by fulfilling dosimetry requests upon receipt of the appropriate forms. EHS will:

- Provide training, guidance and information regarding Radiation Dosimetry Program.
- Distribute dosimeters to Badge Coordinators via Interoffice Mail one week before the beginning of every Wear Period.
- Manage and process forms for new dosimetry requests and change requests.
- Manage and process requests for the release of dosimetry information from other institutions.
- Manage and process pregnancy declarations for personnel working with or near ionizing radiation.

Principal Investigators, Department Supervisors, and Clinical Managers ensure that all WCMC / NYPH personnel who are routinely exposed to radiation use their badges appropriately including:
EHS Update – WCMC/ NYPH Radiation Dosimetry Program

- Assign Badge Coordinators who will distribute and return badges to EHS Radiation Safety via Interoffice Mail NO LATER THAN 10 days after badge are received.
- Establish policies and procedures that ensure laboratory and clinical personnel are aware of updates outlined in this Update.
- Ensure that proper radiation dosimetry is received and used by all personnel likely to receive 10% of the annual radiation dose limits.
- Notify EHS Radiation Safety of personnel requiring dosimetry and of important changes/updates (i.e., department transfers, department no longer needs dosimetry etc.)

Badge Coordinators (BCs) coordinate the badge use and distribution for the dosimetry badge users for their respective Principal Investigators, Department Supervisors and/or Clinical Managers including:

- Collect badges from Department Mail Office and distribute to users via Interoffice Mail.
- Ensure that dosimeters are exchanged and returned to EHS Radiation Safety via Interoffice Mail NO LATER THAN 10 days after badges are received.
- Maintain a 100% Return Rate when exchanging badges at the end of each Wear Period.
- Inform personnel of appropriate forms to use based on the nature of the request.
- Collect unused and/or unreturned dosimeters.
- Notify EHS if current BC is no longer assigned to distribute/exchange badges to personnel.

Dosimetry-Related Forms

**Note:** When filling out a New Dosimeter Request or Change Request form, please refer to the GRAPHIC AIDES section to help identifying specific items (e.g., Wear Group, Account Number).

- **NEW DOSIMETER REQUEST FORM** - For new individuals who have never received dosimetry from WCMC/ NYPH and who require dosimetry because they work with or are routinely exposed to ionizing radiation.

- **CHANGE REQUEST FORM** - For individuals who currently or have previously received dosimetry from WCMC/ NYPH and would like to make changes to their current account.

- **DOSIMETRY INFORMATION RELEASE FORM** - For WCMC/ NYPH personnel who have previously received dosimetry from an outside institution (not WCMC/ NYPH).

- **DEPENDENT MINOR PERMISSION FORM** - For WCMC/ NYPH personnel under the age of 18 who works with or routinely exposed to ionizing radiation at WCMC/ NYPH.

- **DEPENDENT MINOR PERMISSION FORM (BURKE INSTITUTE)** - For WCMC/ NYPH personnel under the age of 18 who work with or are routinely exposed to ionizing radiation at the Burke Medical Research Institute.

**FORM SUBMISSION**

Submit all dosimetry-related forms for processing to EHS via ehs@med.cornell.edu. You may also fax the forms; however this may result in a delay in processing. *Email submission is strongly encouraged.*
DEADLINES / CUTOFF DATES

- **NEW REQUEST/ CHANGE REQUEST** - Forms must be submitted to the EHS Office before the following dates:
  - 8th of every month - Monthly Account (#160849)

- **BADGE RETURN/ EXCHANGE** - Used badges should be delivered to and received by EHS Radiation Safety via Interoffice Mail **NO LATER THAN 10 days after** badges are received. **Note:** Unused/ unreturned/ lost-found badges can be returned to EHS via Interoffice Mail at any time.

Badge Management

**NEW DOSIMETER REQUEST**

Step 1. Complete and submit the [New Dosimeter Request Form](mailto:ehs@med.cornell.edu) to EHS via ehs@med.cornell.edu.

Step 2. EHS Radiation Safety processes the request and the new badges are delivered via Interoffice Mail to the Badge Coordinator.

Step 3. Badge Coordinators receive the badges via their respective Department Interoffice mailboxes and distribute to required personnel.

*Other Potential Dosimetry Forms Required:*

- **Proposed badge wearer is under 18 years of age.** Submit the Dependent Minor Permission Form to EHS via ehs@med.cornell.edu (see Dosimetry-Related Forms above).

- **Proposed badge wearer has previously been monitored for radiation while associated with an outside institution / past employer.** Submit the Dosimetry Information Release Form to EHS via ehs@med.cornell.edu (see Dosimetry-Related Forms above).

**CHANGE REQUEST**

EHS processes the following types of Change Requests:

- Add Dosimeter
- Remove Dosimetry (no longer working with or exposed to radiation.)
- Transfer Dosimeter or Dosimetry (transferring departments)
- Lost or Void Dosimeter-Assign Spare
- Reactivate/ Deactivate (leaving/ returning WCMC/ NYPH employees)
- Fetal Monitor Requests

Step 1. Complete and submit the [Change Request Form](mailto:ehs@med.cornell.edu) to EHS via ehs@med.cornell.edu.

Step 2. EHS Radiation Safety processes the request. If new badges are associated with the change request, the new badge(s) are delivered via Interoffice Mail to the Badge Coordinator. For urgent situations, contact EHS to request hand delivery.
FETAL MONITOR REQUEST

EHS Radiation Safety can issue a fetal monitor for expecting female personnel exposed to radiation. Please take the steps below to process a Fetal Monitor request:

Step 1. Complete and submit the New Dosimeter Request Form (new badge wearer) or Change Request Form (existing badge wearer). Check the option for “Fetal Monitor”. Submit the form to EHS via ehs@med.cornell.edu.

Step 2. EHS Radiation Safety will consult with the requester immediately upon receipt of the request form and provide the Pregnancy Declaration Form. The requester will complete the Pregnancy Declaration Form and provide to EHS Radiation Safety.

Step 3. EHS Radiation Safety will immediately process the request and order a fetal monitor or issue a spare if after the 8th of the month.

BADGE DELIVERY FROM BADGE COORDINATORS TO USERS

Step 1. Badge Coordinators receive badges via Department Interoffice Mailbox one week prior to the every Wear Period.

Step 2. A Landauer Invoice Packing Slip is included in every badge shipment. Store this in a safe and secure place to be used when doing Badge Exchange at the end of the Wear Period. If a packing slip is not included or is miss-placed, contact EHS immediately.

Step 3. Go through packages and ensure badges for all users are included. If a badge(s) is missing or miss-placed, immediately notify EHS. A spare will be assigned to individuals with missing dosimeters. EHS Radiation Safety will send Spares via Interoffice Mail. Spares should be worn until official badges are delivered by EHS RS and received by the user.

Step 4. Badge Coordinators distribute dosimeters to their respective users directly via hand-to-hand exchange. If the user is unavailable at the time of badge distribution, please hold on to the dosimeter(s). Do not leave dosimeters in unattended areas (e.g., desks or mailboxes). At the end of the distribution, follow-up with undistributed dosimeters and ensure that all users receive dosimeter(s).

BADGE RETURN / EXCHANGE FROM BADGE COORDINATORS TO EHS

At the end of each Wear Period Badge Coordinators are responsible for collecting all used/ unused dosimeters. Badge Coordinators should maintain a 100% Return Rate for each Wear Period.

Step 1. At the end of each Wear Period and within the first week of the month, Badge Coordinators collect dosimeters (used/ unused/ unreturned) from all users within the department assigned.

- Ask users if any changes need to be made to current accounts (add/ delete dosimetry).

- Note changes on the Vendor Invoice Packing Slip and include this in the interoffice mail package prepared for delivery. If a packing slip is not included, clearly note changes on a separate sheet of paper and include with Interoffice Mail shipment to EHS Radiation Safety.

Step 2. Deliver badges to EHS Radiation Safety Office via Interoffice Mail, Box #205
- Clearly label the Department, Badge Coordinator’s Name, and Wear Group on the envelope/package.
- Do not seal the Landauer packages and render the package unusable after opening. Please seal packages with removable tape.

Step 3. Expect the following month’s badges to be delivered to department mailboxes one week before the end of the each month.

UNUSED OR UNRETURNED DOSIMETERS

Step 1. Badge Coordinators should inquire about unused / unreturned badged during the Badge Exchange at the end of each Wear Period.

Step 2. Deliver badges to EHS Radiation Safety via Interoffice Mail, Box 205.

VOID DOSIMETER

Once overexposed to radiation (accidental exposure to dosimeter only, not to personnel) a void dosimeter is no longer capable of giving accurate readings. The following steps should be taken in the event a dosimeter becomes voided due to overexposure:

Step 1. **Immediately** discontinue using the dosimeter.

Step 2. Complete and submit the **Change Request** form to obtain a new dosimeter. *No Supervisor/ PI signature is required for submission.

Step 3. Report the accident to EHS Radiation Safety via email, subject line Void Dosimeter. Include a brief description of the accident and the user’s First Name, Last Name, and Dosimeter Account Number.

Step 4. EHS Radiation Safety will deliver Spares via Interoffice Mail and will place a new order for an official badge. Note: Spares should be worn until official badges are delivered by EHS Radiation Safety and are picked up by Badge Coordinators.

### Deadlines/ Timeframes

<table>
<thead>
<tr>
<th>Category</th>
<th>Account Type / Number</th>
<th>Deadline / Timeframe</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Dosimeter &amp; Change Requests</td>
<td>Monthly</td>
<td>Submit Forms by 8th day of every month- Monthly Account ( #160849)</td>
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<td></td>
<td></td>
<td>Submit Forms by 8th day of every even month- Bi-Monthly Account (#4506)</td>
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<tr>
<td></td>
<td>Account #160849</td>
<td></td>
<td>If a new or change request is submitted after the 8th cutoff date, a Spare will be assigned.</td>
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<tr>
<td>Badge Return/ Exchange</td>
<td>Bi-Monthly</td>
<td>NO LATER THAN 10 days after badges are received.</td>
<td>Badge Coordinators should maintain a 100% Return Rate for all Wear Periods by collecting all dosimeters from users at the end of each Wear Period.</td>
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<td></td>
<td>Account #4506</td>
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## Wear Date/Period

<table>
<thead>
<tr>
<th>Category</th>
<th>Account Type / Number</th>
<th>Deadline / Timeframe</th>
<th>Additional Comments</th>
</tr>
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<tbody>
<tr>
<td>Wear Date/Period</td>
<td>Monthly</td>
<td>1st and last day of every month (ex: 6/1/13 - 6/31/13)</td>
<td>Dosimeters should be worn only during the Wear Date/Period indicated so that accurate exposure levels are recorded.</td>
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<tr>
<td></td>
<td>Account #160849</td>
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</tr>
<tr>
<td>Bi-Monthly</td>
<td>Monthly</td>
<td>1st day of odd month, last day of even month (ex: 1/1/13 - 2/28/13)</td>
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<td></td>
<td>Account #4506</td>
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## Assigned Spare

<table>
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<tr>
<th>Category</th>
<th>Account Type / Number</th>
<th>Deadline / Timeframe</th>
<th>Additional Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assigned</td>
<td>Monthly</td>
<td>Ex: Lost Dosimeter 10/9/13, Spare Assigned 10/9, Spare Worn 10/9 - 11/31, New (official) dosimeter received 12/1/13.</td>
<td>Spares should be worn until EHS delivers the official badge replacement to the user.</td>
</tr>
<tr>
<td>Assigned</td>
<td>Monthly</td>
<td>Ex: Lost Dosimeter 10/9/13, Spare Assigned 10/9, Spare Worn 10/9 - 12/31, New (official) dosimeter received 1/1/13.</td>
<td></td>
</tr>
<tr>
<td>Assigned</td>
<td>Monthly</td>
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## Graphic Aides

**BADGE FRONT**
- **Department Code:** Ex: HP - Health Physics
- **Name/ User:**
- **Badge Type:** Pa: Whole Body (Chest) TA: Belly U: Ring
- **Wear Date:**
- **Serial Number:**

**BADGE BACK**
- **Account Number:**
- **Wear Group:** 1, 2, or 3
- **Letter Combination:**
- **Part. Nbr.:** (Participant Number)
Definitions

**Dosimeter Identification Items**- Every dosimeter contains unique information that that is used by EHS and EHS Radiation Safety to process requests. See GRAPHIC AIDES section to identify the specific location of these items.

- Account Type
- Badge Type
- Participant Number (Part. Number)
- Serial Number
- Wear Group
- Wear Date/ Wear Period

**Return Rate**- Badge Coordinators are should to maintain 100% return rates for their respective departments. To ensure that exposures do not exceed legal ALARA limits, EHS must have dosage information for all wear periods.

References

Environmental Health and Safety Radiation Safety Manual.
[http://weill.cornell.edu/ehs/forms_and_resources/](http://weill.cornell.edu/ehs/forms_and_resources/)

Article 175 of New York City Health Code

10CFR20 of Nuclear Regulatory Commission - Radiation Protection Programs

NYC DOH (New York City Department of Health)

JCAHO (Joint Commission on Accreditation of Healthcare Organizations)
[http://www.jointcommission.org/assets/1/18/sea_471.pdf](http://www.jointcommission.org/assets/1/18/sea_471.pdf)