Emergency Worker Information Job Aid

1. Wearing the Self-Reading Dosimeters (SRDs) and Thermoluminescent Dosimeters(TLDs)

- Wear SRDs and TLD in area of body between shoulders and waist.
- Securely clip SRDs and TLD to clothing.
- Wear SRDs and TLD side by side.

2. Reading a Self-Reading Dosimeter (SRD)

- Point the SRD towards a light and look through the eyepiece (the end with the clip)-Do not look directly towards the sun.
- Rotate the SRD so the words ROENTGENS or MILLIROENTGENS appear right side up.
- Note location of the hairline on the scale, estimating readings as close as possible.
- Read SRDs every 30 minutes. If you are notified that a release of radioactive material has occurred, read SRDs every 15 minutes.
- Emergency workers assigned to a reception center need only to read their dosimetry at the onset and termination of reception center operations.

3. Recording SRD Readings

Emergency workers should record their SRD reading on the form below (or equivalent) as follows:

- At the time of initial issue of dosimetry equipment (usually zero).
- At any time when the reading increases from the issue level.
- At any time a higher threshold exposure level is reached (see Step 4).

Emergency Worker's Name:								
Date Received:			Time Received:					
0 - 200 mR SRD			0 - 20 R SRD					
Date	Time	Reading	Date	Time	Reading			
			1					

4. Notifications to Supervisor/Point-of-Contact

- Notify your supervisor/point-of-contact if:
 - you lose one of your SRDs or your TLD.
 - you damage one of your SRDs or your TLD.
 - one of your SRDs goes off-scale.
- Notify your supervisor / point-of-contact at the following exposure levels:

0-200 mR SRD	175 mR				
0-20 R SRD	1R	2R	3R	4R	5R

5. Pregnancy – In Utero Exposure

- A review of the available scientific literature has concluded that the 0.5 rem limit provides an adequate margin
 of protection for the embryo/fetus. This dose limit reflects the desire to limit the total lifetime risk of cancer
 associated with radiation exposure during pregnancy.
- Female emergency workers who are issued dosimetry and who are or think they may be pregnant should be made aware that they should limit their exposure to less than 0.5rem.

- Female workers who may be occupationally exposed (i.e., those who work in the restricted area at a nuclear power plant or at a hospital or other facility and whose occupation carries with it the potential for some radiation exposure) are counseled to make a declaration in writing if they are or think that they may be pregnant. If such declaration is made their occupational exposure is administratively limited and may not exceed 0.5rem. Until such time as that worker withdraws her declaration.
- Offsite emergency workers are not occupationally exposed; however, in the event of a radiological emergency where there may be a potential for exposure, it is prudent for female emergency workers who are or think they may be pregnant to limit any exposure to less than 0.5rem.

6. Records

- Form 305A, Dosimetry-KI Report Form Keep in your possession at all times.
- Form 135A, Potassium Iodide Acknowledgement Form Sign, if appropriate. Copy remains with issuing personnel.

7. Ingestion of Potassium Iodide (KI)

- Potassium lodide (KI) is an over-the counter drug that will block the absorption of radioiodine by the thyroid gland and thus prevent/reduce radiation exposure to the thyroid.
- KI does not block the uptake of other types of radioactive material by the body, nor does it provide protection against exposure from external radioactive materials.
- Inform your supervisor/point-of-contact if you are allergic to iodine. Do not take KI if you are allergic to iodine. Instead, inform your supervisor/point-of-contact and leave the area.
- Side effects from taking KI are unlikely because of the low dose and short time it is taken. Should side effects occur, they might include: skin rash, swelling of salivary glands, metallic taste, burning mouth and throat, sore teeth and gums, symptoms of cold, stomach upset, and/or diarrhea.
- Even more unlikely are severe side effects: fever, joint pain, swelling of parts of face and body, and/or severe shortness of breath requiring immediate medical attention.
- Keep your issued KI with you at all times do not misplace or discard them.
- When instructed to do so, take 130mg of KI per day and record the time and date on Form 305A.
- If you experience any of the side effects described above, report them immediately to your supervisor/point-of-contact.
- KI should be ingested by emergency workers only when instructed to do so. 130mg of KI should be taken
 prior to or at the commencement of exposure to radioiodine. 130mg should be taken for every 24-hour
 period during which exposure to airborne radioiodine occurs. Discontinue taking KI when instructed to do
 so once exposure to radioiodine has ended.

NOTE: Each emergency worker will be issued a four-day supply of KI 130mg per day. An emergency worker's role is to facilitate the implementation of protective actions. The protective actions are ordered whenever radioiodine concentrations are projected to reach a level where KI would be recommended, and the general public will be evacuated. Implementation of public evacuation is expected to take between 6-9 hours. Emergency workers will be instructed to leave the affected area once the public has been evacuated. If emergency workers are instructed to ingest KI, the thyroid is saturated with stable iodine for 24+ hours. If protective actions are implemented and completed within 6-9 hours, and emergency workers are moved out of the area where exposure is projected, then subsequent ingestion of KI is no longer needed.

Emergency workers assigned to reception centers or locations that are <u>outside</u> of the Emergency Planning Zone (EPZ) do NOT need to ingest KI.

8. Termination of Assignment

When directed by your supervisor/point of contact, report to the reception center for your community. Personnel working at a reception center may be monitored at the end of their assignment.

Follow instructions from RadHealth personnel for collection of dosimetry equipment and forms. RadHealth representatives at the facility will establish a collection point for the return of dosimetry and forms by emergency workers for RadHealth processing.