Approved: RG
Chairman - RHSC

WORCESTER POLYTECHNIC INSTITUTE
HEALTH PHYSICS PROCEDURE HP-04
CAMPUS WIPE TEST

1. PURPOSE:

To ensure that areas surrounding the reactor and the reactor building have not become contaminated.

2. FREQUENCY:

This procedure shall be performed semiannually.

3. MATERIALS, TOOLS, AND EQUIPMENT:

3.1. Form(s):

3.1.1. Campus Wipe Tests (Form_07)

3.2. WPI Campus Map

3.3. Filter paper or another appropriate material

3.4. Alcohol

3.5. Gas-flow proportional counter or equivalent detection equipment

4. PRECAUTIONS:

4.1. Ensure that all appropriate health physics practices are followed throughout the procedure.

4.2. Take all necessary precautions to avoid the spread of possible contamination.

4.3. Perform an operability check on all instrumentation used. Ensure that the instrumentation has been calibrated within the proper time limit.

5. INSTRUCTIONS:

5.1. Take at least one swipe at each location listed on the form.

5.1.1. Use filter paper, or another suitable material of high wet strength and absorbent capacity. If necessary, moisten the filter paper with alcohol.

5.1.2. Take each swipe using a S-shaped motion over an area of 100 cm^2.

5.1.3. Record on the swipe container the location of each swipe.

5.2. Analyze the swipes using either a gas-flow proportional counting system or equivalent detection equipment.

5.2.1. Allow the swipes to dry prior to counting to prevent the shielding of alpha and beta radiation.

5.2.2. Use alpha and beta calibrated sources to calibrate the equipment prior to counting the swipes.

5.2.3. Take a background count.

5.3. Investigate alpha counts 3 cpm above background or beta/gamma counts 10 cpm above background.

6. RESTORATION:

None

7. REFERENCES:

None