PRACTICAL EXERCISE

GROUP B: The Reactor Building East Wing

First we analysed each part of the East Wing of the Reactor Building, using the information how it was / is used till now, and we classified each one as NC (Non contamination), PC (possible contamination), C (contamination).

1. CLASSIFICATION OF THE LOCATIONS.

1.1. Basement Floor Locations

Item	NC	PC	C
EO-1	X		
EO-1a		X	
EO-2			X
EO-2a	X		
EO-3			X
EO-3a	X		
EO-3b	X		
EO-4			X
EO-4a			X
EO-4b			X
EO-5			X
EO-6			X
EO-7			X
EO-7a			X

Item	NC	PC	C
EO-8			X
EO-8a			X
EO-9	X		
EO-10	X		
EO-11	X		
EO-12	X		
EO-13	X		
EO-14	X		
EO-15			X
EO-16	X		
EO-17	X		
EO-18	X		
EO-19	X		
EO-20			X

1.2. First floor locations

Item	NC	PC	C
E1-1	X		

E1-2	X		
E1-3	X		
E1-4	X		
E1-5	X		
E1-6	X		
E1-7	X		

1.3. **Second floor locations**

Item	NC	PC	C
E2-1		X	
E2-2	X		
E2-3	X		
E2-4	X		
E2-5	X		

2. SURVEY REQUIREMENTS

First of all it needs to make a general screening (scanning) to confirm the initial supposition.

For the locations where there is non-contamination it is only necessary to take smear tests to assure that they are clean.

For the locations that are considered to have possible contamination it is necessary to take samples and analyse them. If contamination is found, so use the requirement for contaminated location.

For the contaminated locations it is necessary to determine where are the higher values and then take some samples and analyse them. If the values are higher than a established limit the evaluation must be deeper.

The labelling system must be standardised, easy and fully understood by everybody.

A storage for the samples must be decided before beginning the activities with especial places for liquid and solid samples, according to the specific requirements for the analyse.

When everything were evaluated, it is necessary to classify the material as radioactive or hazardous wastes or garbage. The radioactive and hazardous wastes will be classified, treated and store as the specific procedures. Other materials will be send to landfill.

3. METHODS CHOSEN

The chosen methods must be suitable with the samples and the results that are expected.

4. PERSONNEL

The personnel must be trained in the specific activities and should be protected from operational and radiological risks.

Before beginning the activities the procedures must be ready and some experimental work simulating the real conditions must be made, so that it will be possible to identify some problems or difficulties in the activity execution.

All the personal protection equipment must be provided. It is desirable that at least two persons are trained for the same activity.

Special care must be taken with the contracted personnel, they must be trained and they must understand exactly their duties to avoid accidents.

5. EQUIPMENT REQUIRED

For the work will be necessary equipment to:
Direct and indirect measurements, for example, beta/gama spectrometer,
take and prepare samples,
safety of personnel, for example alarm counter,
carry the materials, like portable cranes and forklift
avoid spread of contamination, for example vacuum cleaner and water sprayer,
weight the material, like scales,
etc.
For the equipment that will be used to make measurement it is necessary calibration and be sure that they are suitable for the purpose.
The equipment to carry the material must be adequate to carry and transport the material safely, and they must be tested before the beginning of the activities.
Maintenance must be provided during all the activities.
Packages and containers in different forms and volumes must be provided to store samples and other materials.
Contention systems must be provided especially for the activities with liquids, to avoid contamination and unexpected leakage, when carrying tanks or containers.

6. WORK SCHEDULE

The work must begin from the second floor. After the first floor and finally in the basement, in order to avoid recontamination.

Typical procedure has this pattern

Objective
Applicability
Responsibilities
References (when applicable)
Material (general, equipment, packages etc.)
Modus operandi (method)
Calculation (when is the case)
Exceptions
Form example.