

Sub-Element 4.b—Post-Plume Phase Field Measurements and Sampling

<p>What the Policy Says</p>	<p>Intent NUREG-0654 provides that OROs should have the capability to assess the actual or potential magnitude and locations of radiological hazards in the IPZ and for relocation, re-entry and return measures. This sub-element focuses on the collection of environmental samples for laboratory analyses that are essential for decisions on protection of the public from contaminated food and water and direct radiation from deposited materials.</p> <p>Criterion 4.b.1: The field teams demonstrate the capability to make appropriate measurements and to collect appropriate samples (for example, food crops, milk, water, vegetation, and soil) to support adequate assessments and protective action decision-making. (NUREG-0654, I.8; J.11).</p> <p>Minimum Frequency Criterion 4.b.1 is to be evaluated once in 6 years.</p> <p>Extent of Play</p> <p>The ORO's field team should demonstrate the capability to take measurements and samples, at such times and locations as directed, to enable an adequate assessment of the ingestion pathway and to support re-entry, relocation, and return decisions. When resources are available, the use of aerial surveys and in-situ gamma measurement is appropriate. All methodology, including contamination control, instrumentation, preparation of samples, and a chain-of-custody form for transfer to a laboratory, will be in accordance with the ORO's plan and/or procedures.</p> <p>Ingestion pathway samples should be secured from agricultural products and water. Samples in support of relocation and return should be secured from soil, vegetation, and other surfaces in areas that received radioactive ground deposition.</p> <p>ORO's should use Federal resources as identified in the FRERP, and other resources (for example, compacts, utility, nuclear insurers, etc.), if available. Evaluation of this criterion will take into consideration the level of Federal and other resources participating in the exercise.</p> <p>All activities must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless noted above or otherwise indicated in the extent of play agreement.</p>
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<p>Preparing to Evaluate This Criterion</p>	<p>Before the exercise, determine, according to the ORO's plan/procedures and the Extent of Play agreement:</p> <ul style="list-style-type: none"> • How is the area of interest (that impacted by the passing plume) going to be identified? • If aerial measurements are to be used, what method or procedure will be used to identify the area of interest that is below the detection limit of the aircraft? • What are the ORO agencies that will supply field teams? • Which ORO agencies oversee contamination control and exposure for the teams? • What instruments, equipment, and supplies are required for each type of sampling assignment? • What are the specified minimum sample sizes to be collected? • How and when will the results of direct radiation measurements be transmitted to the appropriate location? • How will the collected samples be transported to a laboratory for analysis? • What agency, if any, other than the ORO is to participate in this demonstration and what limitations or restrictions have been established?
<p>During the Exercise</p>	<p>During the exercise, in addition to evaluating activities related to the items listed above, be sure to:</p> <ul style="list-style-type: none"> • Document all instructions given to the field team. • Document all controller injects. • Document all communications to the field team coordinator. • Obtain copies of all worksheets completed by the team, including any chain-of-custody forms.