

### **Sub-Element 6.a— Monitoring and Decontamination of Evacuees and Emergency Workers and Registration of Evacuees**

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| <b>What the Policy Says</b> | <p><b>Intent</b><br/>NUREG-0654 provides that OROs should have the capability to implement radiological monitoring and decontamination of evacuees and emergency workers, while minimizing contamination of the facility, and registration of evacuees at reception centers.</p> <p><b>Criterion 6.a.1:</b> The reception center/emergency worker facility has appropriate space, adequate resources, and trained personnel to provide monitoring, decontamination, and registration of evacuees and/or emergency workers. (NUREG-0654, J.10.h; J.12; K.5.a).</p> <p><b>Minimum Frequency</b><br/>Criterion 6.a.1 is to be evaluated once in 6 years. The plume phase and the post-plume phase can be demonstrated separately.</p> <p><b>Extent of Play</b><br/>Radiological monitoring, decontamination, and registration facilities for evacuees/emergency workers should be set up and demonstrated as they would be in an actual emergency or as indicated in the extent of play agreement. This would include adequate space for evacuees' vehicles. Expected demonstration should include <math>\frac{1}{3}</math> of the monitoring teams/portal monitors required to monitor 20% of the population allocated to the facility within 12 hours. Before using monitoring instrument(s), the monitor(s) should demonstrate the process of checking the instrument(s) for proper operation.</p> <p>Staff responsible for the radiological monitoring of evacuees should demonstrate the capability to attain and sustain a monitoring productivity rate per hour needed to monitor the 20% emergency planning zone (EPZ) population planning base within about 12 hours. This monitoring productivity rate per hour is the number of evacuees that can be monitored per hour by the total complement of monitors using an appropriate monitoring procedure. A minimum of six individuals per monitoring station should be monitored, using equipment and procedures specified in the plan and/or procedures, to allow demonstration of monitoring, decontamination, and registration capabilities. The monitoring sequences for the first six simulated evacuees per monitoring team will be timed by the evaluators in order to determine whether the twelve-hour requirement can be met. Monitoring of emergency workers does not have to meet the twelve-hour requirement. However, appropriate monitoring procedures should be demonstrated for a minimum of two emergency workers.</p> |
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|  | <p>Decontamination of evacuees/emergency workers may be simulated and conducted by interview. The availability of provisions for separately showering should be demonstrated or explained. The staff should demonstrate provisions for limiting the spread of contamination. Provisions could include floor coverings, signs and appropriate means (for example, partitions, roped-off areas) to separate clean from potentially contaminated areas. Provisions should also exist to separate contaminated and uncontaminated individuals, provide changes of clothing for individuals whose clothing is contaminated, and store contaminated clothing and personal belongings to prevent further contamination of evacuees or facilities. In addition, for any individual found to be contaminated, procedures should be discussed concerning the handling of potential contamination of vehicles and personal belongings.</p> <p>Monitoring personnel should explain the use of action levels for determining the need for decontamination. They should also explain the procedures for referring evacuees who cannot be adequately decontaminated for assessment and follow up in accordance with the ORO's plans and procedures. Contamination of the individual will be determined by controller inject and not simulated with any low-level radiation source.</p> <p>The capability to register individuals upon completion of the monitoring and decontamination activities should be demonstrated. The registration activities demonstrated should include the establishment of a registration record for each individual, consisting of the individual's name, address, results of monitoring, and time of decontamination, if any, or as otherwise designated in the plan. Audio recorders, camcorders, or written records are all acceptable means for registration.</p> <p>All activities associated with this criterion must be based on the ORO's plans and procedures and completed as they would be in an actual emergency, unless otherwise indicated in the extent of play agreement.</p> |
| <p><b>Preparing to Evaluate This Criterion</b></p> | <p>Before the exercise, determine, according to the ORO's plan/procedures and the Extent of Play agreement:</p> <p><b>For Evacuees (General Public)</b></p> <ul style="list-style-type: none"> <li>• Where will monitoring, decontamination, and registration of evacuees occur?</li> <li>• What kind of monitoring equipment will be used? Hand held? Portal monitors?</li> <li>• How many personnel are trained to operate monitoring equipment?</li> <li>• Is there team or group dosimetry, or strategically placed radiological monitoring instruments, for contamination control at the facility?</li> <li>• What is the total population of the EPZ? What is 20% of that figure (the estimate of needed monitoring capability)?</li> <li>• Is there sufficient staff and monitoring equipment specified to process 20% of population (assigned to the facility to be evaluated) within 12 hours?</li> <li>• Will all required monitoring staff be demonstrated? If not, what is the agreed demonstration?</li> </ul>   |

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| <p><b>Preparing to Evaluate This Criterion (Continued)</b></p> | <ul style="list-style-type: none"> <li>• Will at least 6 individuals be monitored per monitoring station?</li> <li>• What is the action level for determining the need for decontamination?</li> <li>• When an individual is found to be contaminated, what happens to their potentially contaminated vehicle?</li> <li>• What procedures are used to minimize contamination within the facility?</li> <li>• How are contaminated individuals separated from non-contaminated individuals?</li> <li>• How are monitored and clean vehicles separated from contaminated or non-monitored vehicles?</li> <li>• How are contaminated clothing and other personal belongings to be handled? Will clean clothing be provided to evacuees?</li> <li>• Are separate showers for males and females specified?</li> <li>• What procedures are used if evacuees could not be adequately decontaminated?</li> <li>• Will decontamination of evacuees be conducted by interview or actually demonstrated?</li> <li>• What is the process used to ensure that only clean evacuees enter the registration area?</li> <li>• What organization registers evacuees upon completion of monitoring and decontamination?</li> </ul> <p><b>For Emergency Workers</b></p> <ul style="list-style-type: none"> <li>• Where will monitoring, decontamination, and registration of emergency workers occur?</li> <li>• What kind of monitoring equipment will be used?</li> <li>• How many personnel are trained to operate monitoring equipment at the facility for emergency workers?</li> <li>• What is the action level for determining the need for decontamination?</li> <li>• What procedures are used to minimize contamination within the facility?</li> <li>• How are contaminated emergency workers separated from non-contaminated emergency workers?</li> <li>• How are contaminated clothing and other personal belongings to be handled? Will clean clothing be provided to emergency workers?</li> <li>• Will decontamination of emergency workers be conducted by interview or actually demonstrated?</li> <li>• Are separate showers for male and female emergency workers specified?</li> <li>• What procedures are used if emergency workers could not be adequately decontaminated?</li> </ul> |
| <p><b>During the Exercise</b></p>                              | <p>During the exercise, in addition to evaluating activities related to the items listed above, be sure to:</p> <p><b>For Evacuees (General Public)</b></p> <ul style="list-style-type: none"> <li>• Note whether there was adequate space for evacuees and their vehicles at the reception center.</li> <li>• Document the type and quantity of monitoring equipment used.</li> <li>• Note how monitoring equipment is checked to ensure it is operational.</li> <li>• Document the number of personnel available to perform monitoring of vehicles and evacuees (compare to the number indicated in the extent of play agreement).</li> <li>• Document the number of personnel available to perform decontamination of evacuees (compare to the number indicated in the extent of play agreement).</li> </ul>   |

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| <b>During the Exercise (Continued)</b> | <ul style="list-style-type: none"><li>• Determine whether, based on the demonstration, the facility can monitor 20% of anticipated evacuees within 12 hours.</li><li>• Note if contamination control procedures, including storage of contaminated clothing and possessions, were followed.</li><li>• Note whether there are separate showers for males and females.</li><li>• Observe what is done if an evacuee cannot be successfully decontaminated.</li><li>• Note if the access into the clean (registration) area is controlled adequately.</li><li>• Note if a registration record was established for each individual. The record (which can be written or recorded audiovisually) should contain the individual's name, address, results of monitoring, and time of decontamination (if needed).</li></ul> <p><b>For Emergency Workers</b></p> <ul style="list-style-type: none"><li>• Note whether there was adequate space for emergency workers at the emergency worker decontamination facility.</li><li>• Document the type and quantity of monitoring equipment used.</li><li>• Note how monitoring equipment is checked to ensure it is operational.</li><li>• Note whether there are separate showers for male and female emergency workers.</li><li>• Note whether at least two emergency workers were monitored.</li><li>• Document the number of personnel available to perform monitoring of emergency workers (compare to the number indicated in the extent of play agreement).</li><li>• Document the number of personnel available to perform decontamination of emergency workers (compare to the number indicated in the extent of play agreement).</li><li>• Note if contamination control procedures, including storage of contaminated clothing and possessions, were followed.</li><li>• Observe what is done if an emergency worker cannot be successfully decontaminated.</li><li>• Note if a record of monitoring and decontamination (if necessary) is kept for each emergency worker.</li></ul> |
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