

RCT/HPT Site Standard OJT Program
OJE Evaluator Reference

Course Number: **022307**
 Course Title: RCT/HPT OJT/OJE Task – Radiological Posting
 Task Title: Radiological Posting
 Form(s) N/A
 Terminal Objective: Identify criteria for all basic radiological postings

Objectives – Part A	
Method	Task
D	<p>Pre-Posting Considerations</p> <p>Describe posting defacement restrictions</p> <p><i>Signs may not be defaced or modified to change their purpose other than “For Training Purposes Only”</i></p>
D	<p>Describe radiological sign / boundary requirements</p> <p><i>Boundaries should be yellow and magenta (existing boundaries will not be retrofitted) and signs should have a yellow background and magenta (or black lettering)</i></p> <p><i>Signs should have a height and width proportional to 7” x 10.25”, with the exception of the Hot Spot and FCA signs which are square</i></p> <p><i>Access boundaries (yellow/magenta rope, tape, etc.) may be placed on floor or ground in specific situations as per cognizant RadCon Supervisor</i></p> <p><i>Boundaries are to be approximately waist high and be clearly visible from all sides accessible without impeding emergency exit or evacuation routes</i></p> <p><i>Signs are to be placed approximately 40 ft. apart not to exceed 100 ft. apart (conspicuously posted to avoid inadvertent access), secured to prevent removal by environmental conditions, and to remain visible if area configuration changes (doors open / closed)</i></p> <p><i>If radiological area covers two different conditions that require signs indicating CAUTION and DANGER there has to be separate signs</i></p>

Objectives – Part A	
Method	Task
D	<p>Describe radiological area that do not need physical barriers</p> <ul style="list-style-type: none"> • RCA • SCA • RMA • URMA • FCA (label or post IAW RC-200, 6.3)
D	<p>Describe methods for posting fluctuating conditions</p> <p><i>Post the area to reflect the more restrictive condition</i></p>
D	<p>Describe items needed at radiological area access / egress locations</p> <ul style="list-style-type: none"> • Posted RBA at CA access / egress • Protective Clothing undress instructions • Disposal / Storage containers for protective clothing and waste (as applicable) • A Step Off Pad (SOP) suitable for the conditions
D	<p>Posting Criteria(s) - Identify posting criteria for an RCA</p> <p><i>Shall encompass all radiological areas except – SCA; URMA and FCA</i></p> <p><i>Post as : Caution, Radiologically Controlled Area</i></p>
D	<p>Identify posting criteria for an RA</p> <p><i>An accessible area where an individual could receive a deep dose equivalent in excess of 5 mrem in one hour at 30 cm from a source of radiation or any surface the radiation penetrates</i></p> <p><i>Post as : Caution, Radiation Area</i></p>
D	<p>Identify posting criteria for an HRA and for a VHRA</p> <p>HRA</p> <p><i>An accessible area where an individual could receive a deep dose equivalent in excess of 100 mrem in one hour at 30 cm from a source of radiation or any surface the radiation penetrates</i></p> <p><i>Post as: Danger, High Radiation Area</i></p>

Objectives – Part A	
Method	Task
	<p>VHRA <i>An accessible area where and individual could receive an absorbed dose in excess of 500 rads in one hour at 1 meter from a source of radiation or any surface the radiation penetrates</i></p> <p><i>Post as: Grave Danger, Very High Radiation Area</i></p>
D	<p>Identify posting criteria for a CA</p> <p><i>An accessible area where transferable and/or removable surface contamination levels exceed the associated removable values identified in table 2-2 (RC-200, Appendix A – WCH), “Contamination Values” but not 100 times those values</i></p> <p><i>Post as: Caution, Contamination Area</i></p>
D	<p>Identify posting criteria for an HCA and for an HCA / HPA</p> <p>HCA <i>An accessible area where transferable and/or removable surface contamination levels exceed 100 times the associated removable values identified in table 2-2 (RC-200, Appendix A – WCH), “Contamination Values”</i></p> <p><i>Post as: Danger, High Contamination Area</i></p> <p>HCA / HPA <i>An accessible area or system where small, discrete, generally insoluble particles with dimensions typically less than or approximately 1 millimeter are present and are capable of producing an uncorrected beta dose rate of 100 mrad per hour and having a minimum activity of 10 μCi</i></p> <p><i>Post as: Danger, High Contamination Area, Hot Particle Area</i></p>
D	<p>Identify posting criteria for an ARA</p> <p><i>1 DAC or 12 DAC-hours/week. Note: <u>Occupied</u> areas with airborne concentrations of radioactivity greater than or potentially greater than 10 percent of a DAC (MSA/WCH) should be posted.</i></p> <p><i>Post as: Caution, Airborne Radioactivity Area</i></p>

Objectives – Part A	
Method	Task
	<p>CHPRC/WRPS</p> <p>20% DAC</p>
D	<p>Identify posting criteria for an RBA (dose and contamination)</p> <p>Dose Control <i>An area established for the purpose of dose control in which an individual may receive in excess of 100 mrem in one year but does not meet the requirements for an RA</i></p> <p><i>Contact the Radiological Engineer to evaluate areas >50 microrem/hr</i></p> <p>Contamination Control <i>An area adjacent to an entrance or exit of active CA, HCA or ARA established for the purpose of contamination control</i> <i>May also be posted as standalone areas</i></p> <p><i>Post Both Areas as: Caution, Radiological Buffer Area</i></p>
D	<p>Identify posting criteria for an SCA</p> <p><i>An accessible area in which radioactive contamination exists within the top 15cm of soil as follows.</i></p> <p>Direct contamination <i>reading of the soil surface exceeds the appropriate “total” surface contamination values found in Table 2-2 (RC-200, Appendix A – WCH)</i></p> <p>Transferable contamination <i>levels from the area do not exceed the appropriate “removable” surface contamination values in Table 2-2 (RC-200, Appendix A – WCH)</i></p> <p><i>Post as: Caution, Soil Contamination Area (include the instructions “Contact Radiological Control Organization Before Digging”)</i></p> <p><i>The area would not require posting as such if it has been covered with a layer of impervious material (i.e., concrete, asphalt, etc.) of at least 15 cm in depth. In this instance the area would be re-posted as a URMA.</i></p>

Objectives – Part A	
Method	Task
D	<p>Identify posting criteria for an URMA</p> <p><i>An accessible area in which known or presumed radioactive contamination above naturally-occurring background levels exists below the top 15 cm of soil, or below any layer of impervious soil cover material (i.e., asphalt, concrete, etc.)</i></p> <p><i>Post as: Caution, Underground Radioactive Material Area, include additional instructions to ensure individuals do not perform unauthorized digging in these areas.</i></p>
D	<p>Identify posting criteria for an FCA</p> <p>An area with fixed contamination levels exceeding the total contamination values identified in Table 2-2 (RC-200, Appendix A – WCH).</p> <p><i>Post as: Caution, Fixed Contamination Area</i></p> <p><i>NOTE: FCAs are identified by a label or a sign directly to the surface or located at the access point.</i></p>
D	<p>Identify posting criteria for an HOT SPOT</p> <p><i>A localized source of radiation greater than 100 mrem/hr on contact and 5 times the general area dose rate</i></p> <p><i>Applies only in areas where the general area dose rate is < 1R/hr</i></p> <p><i>Label location as: Caution, Hot Spot</i></p>
D	<p>Differentiate between “Down-Posting” and “Re-Posting:</p> <ul style="list-style-type: none"> • <i>Down-Posting</i> – <i>Removing a radiological posting when that radiological condition no longer exists</i> • <i>Re-Posting</i> – <i>Replacing a posting because a radiological condition has changed.</i>
D	<p>Identify temporary posting requirements / limitations</p> <p><i>NOTE: Approval from RadCon Supervisor is required prior to performing</i></p> <p><i>A RCT may be the temporary boundary for the following radiological areas:</i></p>

Objectives – Part A	
Method	Task
	<ul style="list-style-type: none"> • <i>RBA, CA, HCA, HCA/HPA, RA, or SCA for up to eight continuous hours,</i> • <i>Also an HRA, provided that no personnel entry into the HRA is required</i> • <i>A RCT being a temporary boundary must perform the following:</i> <ul style="list-style-type: none"> ○ <i>Remain present at all times to provide access and exposure controls</i> ○ <i>Brief all involved personnel on the entry / exit requirements for the radiological area</i> ○ <i>Ensure all personnel have the proper PPE for the conditions</i> ○ <i>Maintain surveillance of the area, ensuring no violation of the boundaries</i> ○ <i>Ensure performance of all required personnel surveys upon exit.</i> ○
D	<p>Identify the minimum information required on a Status Board</p> <ul style="list-style-type: none"> • <i>Current date</i> • <i>A map or drawing of the area</i> • <i>Radiological levels or conditions in the area</i>