

Procedure	Effective Date	Rescinds
UDR-13BR Radiological Monitor Operation & Use of	09-10-2004	NEW

Reference

NORWICH TOWNSHIP FIRE DEPARTMENT SOG-s-#28
FRANKLIN COUNTY FIRE CHIEFS & STATE FIRE MARSHAL

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Purpose:

The purpose of this procedure is to provide a guideline for the operation at incidents or situations that may arise during the course of an operation. Each member is expected to know, understand and operate according to this guideline as each situation arises.

Responsibility:

- I. It shall be the responsibility of the department officers to implement this operating guideline.
- II. It shall be the responsibility of the department officers to train members in the application of this guideline.
- III. It shall be the responsibility of each member to know, understand and use this guideline as it applies to the situation at hand.

Guideline:

General

This guideline addresses three main components of operating the UDR-13BR.

- 1. Alarm settings for Rate and Dose
- 2. Alarm Activations and actions for responders upon Rate and Dose alarm activation.
- 3. Care, maintenance and calibration of the UDR-13BR

This guideline is written with the knowledge that responders will follow existing safety and hazardous materials guidelines where applicable. Conditions and situations may require deviation from these guidelines. The use of sound judgment and experience is a critical component, when applying any guidelines.

Alarm Settings

Rate Alarm

It is recommended for daily fire service use, that the Rate alarm (for rate of exposure) should be set at **1 mR/hr** (1 milli-RAD per hour). This setting is well below IDLH levels, yet significantly above normal background levels.

Dose Alarm

It is recommended for daily fire service use, that the Dose alarm (for accumulated dose) should be set at **1 REM**. Note that an accumulated dose of 25-50 REMs is considered a mild dose with no detectable clinical effects on the body.

Rate Alarm Activation

In the event of Rate Alarm activation, the officer or in-charge firefighter shall notify the incident commander of the activation and the rate detected. The following actions shall occur:

- *Crews should be directed to evaluate the area. Life safety (Rescue) concerns should be the only reason to delay evacuation.
- *Ensure use of PPE, continue monitoring (rate and accumulated dose), and refer to Hazardous Materials SOG.
- *Establish control zones, limit exposure to those necessary to complete the operations.

Dose Alarm Activation

Under normal conditions, the Dose Alarm threshold will never be exceeded without the Rate Alarm activating first. The Total Dose is accumulative in the unit from the minute it is first turned on until it is reset.

When Dose Alarm activates on just one unit on a scene, contact incident command for instructions. Evaluate the current Rate of exposure to assure it is within normal limits, then verify with a second detector.

If Dose Alarm activation occurs with multiple units, contact incident command of the activations and the rate detected. The following actions shall occur:

- *Crews should be directed to evacuate to an area below the 1mR/hr rate. Life safety (rescue) concerns should be the only reason to delay evacuation.
- *Ensure use of PPE, continue monitoring (rate and accumulated dose), refer to Hazardous Materials SOG.
- *Establish control zones, limit exposure to those necessary to complete the operations.

Care Maintenance and Calibration

It is recommended that the **UDR-13BR** is kept in the **Asleep** mode for routine operations and when not in use. This will give an approximately sixty (60) day battery life. Batteries will last only ten(10) to twelve(12) days if kept in the on position.

When the **Asleep** mode is enabled, most of the unit's circuits are turned off to conserve battery power. Every five (5) minutes, the unit will wake up for four (4) to six (6) seconds and check the current rate.

The **UDR-13BR** should be placed in the **Awake** mode on any incident involving a detonation, explosion, or whenever there is any indication or suspicion of the presence of radiological materials.

The **UDR-13BR** should be checked at least weekly, and following any use. Refer to manufacturers guidelines. It is recommended that the batteries are replaced on a weekly basis when the unit is kept in the **Awake** mode.

The **UDR-13BR** should be calibrated on a yearly basis. Calibration service is available thru the Ohio Emergency Management Agency.

PROCEDURE

The UDR-13BR will be attached to the **AI**n-Charge@SCBA harness and operated in the **ASleep**@mode with the **ARATE**@sampling activated.

During **ADaily**@ and/or **ASunday**@ equipment checks the UDR-13BR is discovered in the **AON**@mode; replace the batteries immediately as a safety precaution and put the device back into **ASleep**@mode.

A **ABAT**@ indicator will appear in the top left corner of the screen when the batteries are estimated to have 600 minutes of operation remaining. Since this is only a rough approximate life expectancy, when the **ABAT**@ indicator appears, the batteries should be replaced immediately.