



**Homeland  
Security**

Office for Domestic Preparedness



# **OFFICE FOR DOMESTIC PREPAREDNESS (ODP)**

## **Domestic Preparedness Equipment Technical Assistance Program (DPETAP)**

### **Technical Assistance Catalog**

November 12, 2004

**This catalog was developed jointly by Pine Bluff Arsenal and GP  
in support of DHS/ODP.**

**Comments or questions concerning the catalog or the Domestic Preparedness  
Equipment Technical Assistance Program should be addressed to:**

**DPETAP Project Manager  
GP/PBA  
PO Box 20308  
Pine Bluff, AR 71612**

**or**

**[gwendt@gpworldwide.com](mailto:gwendt@gpworldwide.com)**

## DPETAP Technical Assistance Catalog Table of Contents

Technical Assistance ID Number	Title	Index Listing Page	Complete Description Page
WMD00	Introduction to WMD-Related Hazardous Materials – Substances and Symptoms	1	3
WMD01	WMD Detection Technologies	1	3
HDR01	Homeland Defense Equipment Reuse (HDER) Program Training	1	3, 4
AWMD01	Advanced WMD Materials and Detection Technologies	1	4
AWMD02	Advanced Radiological Survey Techniques	1	4
DEQ01	Operation and Maintenance of the Draeger Civil Defense System (CDS)	1	4
DEQ02	Operation and Maintenance of the Photo Ionization Detector (PID) MiniRAE Plus	1	5
DEQ03	Operation and Maintenance of the Ludlum Model 2241-2 Emergency [Radiological] Response Kit	1	5
DEQ04	Operation and Maintenance of the Chemical Detector APD2000	1	5
DEQ05	Operation and Maintenance of the Chemical Agent Detector SAW MiniCAD mkII	1	5
DEQ06	Use of Chemical Agent Detection Materials -- M8, M9, and M256A1 Kit	1	6
DEQ07	Operation and Maintenance of the CAM Chemical Agent Monitor (w/Plus S/W)	1	6
DEQ08	Operation and Maintenance of the Photo Ionization Detector (PID) Passport PID II	1	6
DEQ09	Operation and Maintenance of the Multi-Gas Meter Passport FiveStar Alarm	1	6
DEQ10	Use of Biological Agent Detection Materials -- Bio-Assay (SMART) Tickets	1	6
DEQ11	Operation and Maintenance of the MultiRAE Plus Multi-Gas Meter w/PID	1	7
DEQ12	Operation and Maintenance of the Photo Ionization Detector (PID) MiniRAE 2000	1	7
DEQ13	Operation and Maintenance of the HAZMATCAD Plus	1	7
DEQ14	Operation and Maintenance of the Draeger Chip Measurement System (CMS)	1	7
DEQ15	Operation and Maintenance of the M18A3 Chemical Agent Detection Kit	1	8
DEQ16	Operation and Maintenance of the Ludlum Model 3 Emergency [Radiological] Response Kit	1	8
DEQ17	Operation and Maintenance of the Radiation Pager – S	1	8
DEQ18	Operation and Maintenance of the ToxiRAE Plus Photo Ionization Detector (PID)	1	8
DEQ19	Operation and Maintenance of the 451B Ionization Chamber Survey Meter	1	8
DEQ20	MultiRAE Plus for Operators	1	9
DEQ21	Operation and Maintenance of the Guardian Bio-Threat Alert (BTA) System	1	9
DEQ22	Operation and Maintenance of the Thermo Electron FH 41 B Multi-Purpose Radiation Meter	1	9
DEQ23	Operation and Maintenance of the Thermo Electron FH 40 G Dose Rate Measuring Unit	1	9
DEQ24	Use of Biological Agent Detection Materials – Bio-Assay (SMART II) Tickets	1	9
DEQ25	Operation and Maintenance of the Photo Ionization Detector (PID) MiniRAE Plus Classic	1	10
DEC01	WMD Mass Casualty Personnel Decontamination	1	10
PPE01	WMD Personal Protective Equipment Field Training	1	11
TTX01	Tabletop Practical Exercise #1	2	11
TTX02	Tabletop Practical Exercise #2	2	12
TTX03	Tabletop Practical Exercise #3	2	12

**DPETAP Technical Assistance Catalog**  
**Table of Contents**

TTX04	Tabletop Practical Exercise #4	2	12
TTX05	Tabletop Practical Exercise #5	2	13
TTX06	Tabletop Practical Exercise #6	2	13
TTX07	Tabletop Practical Exercise #7	2	13
TTX08	Tabletop Practical Exercise #8	2	14

**DPETAP  
TECHNICAL ASSISTANCE CATALOG  
ID NUMBER-TO-TITLE INDEX**

<b>ID NUMBER</b>	<b>TECHNICAL ASSISTANCE TYPES and TITLES</b>	<b>DURATION</b>
<b>DETECTION TECHNOLOGY AND SURVEY</b>		
WMD00	Introduction to WMD-Related Hazardous Materials – Substances and Symptoms	4 hrs.
WMD01	WMD Detection Technologies	4 hrs.
HDR01	Homeland Defense Equipment Reuse (HDER) Program Training	20 hrs.
AWMD01	Advanced WMD Materials and Detection Technologies	8 hrs.
AWMD02	Advanced Radiological Survey Techniques	16 hrs.
<b>DETECTION EQUIPMENT OPERATION AND MAINTENANCE</b>		
DEQ01	Operation and Maintenance of the Draeger Civil Defense System (CDS)	2 hrs.
DEQ02	Operation and Maintenance of the Photo Ionization Detector (PID) MiniRAE Plus	3 hrs.
DEQ03	Operation and Maintenance of the Ludlum Model 2241-2 Emergency [Radiological] Response Kit	4 hrs.
DEQ04	Operation and Maintenance of the Chemical Detector APD2000	3 hrs.
DEQ05	Operation and Maintenance of the Chemical Agent Detector SAW MiniCAD mkII	2 hrs.
DEQ06	Use of Chemical Agent Detection Materials – M8, M9, and M256A1 Kit	1 hr.
DEQ07	Operation and Maintenance of the CAM Chemical Agent Monitor (w/Plus S/W)	3 hrs.
DEQ08	Operation and Maintenance of the Photo Ionization Detector (PID) Passport PID II	3 hrs.
DEQ09	Operation and Maintenance of the Multi-Gas Meter Passport FiveStar Alarm	3 hrs.
DEQ10	Use of Biological Agent Detection Materials -- Bio-Assay (SMART) Tickets	1 hr.
DEQ11	Operation and Maintenance of the MultiRAE Plus Multi-Gas Meter w/PID	4 hrs.
DEQ12	Operation and Maintenance of the Photo Ionization Detector (PID) MiniRAE 2000	3 hrs.
DEQ13	Operation and Maintenance of the HAZMATCAD Plus	2 hrs.
DEQ14	Operation and Maintenance of the Draeger Chip Measurement System (CMS)	2 hrs.
DEQ15	Operation and Maintenance of the M18A3 Chemical Agent Detection Kit	3 hrs.
DEQ16	Operation and Maintenance of the Ludlum Model 3 Emergency [Radiological] Response Kit	4 hrs.
DEQ17	Operation and Maintenance of the Radiation Pager – S	1 hr.
DEQ18	Operation and Maintenance of the ToxiRAE Plus Photo Ionization Detector (PID)	3 hrs.
DEQ19	Operation and Maintenance of the 451B Ionization Chamber Survey Meter	3 hrs.
DEQ20	MultiRAE Plus for Operators	3 hrs.
DEQ21	Operation and Maintenance of the Guardian Bio-Threat Alert (BTA) System	3 hrs.
DEQ22	Operation and Maintenance of the Thermo Electron FH 41 B Multi-Purpose Radiation Meter	2 hrs.
DEQ23	Operation and Maintenance of the Thermo Electron FH 40 G Dose Rate Measuring Unit	4 hrs.
DEQ24	Use of Biological Agent Detection Materials -- Bio-Assay (SMART II) Tickets	1 hr.
DEQ25	Operation and Maintenance of the Photo Ionization Detector (PID) MiniRAE Plus Classic	3 hrs.
<b>PERSONNEL DECONTAMINATION</b>		
DEC01	WMD Mass Casualty Personnel Decontamination	24 hrs.
<b>PERSONAL PROTECTIVE EQUIPMENT</b>		
PPE01	WMD Personal Protective Equipment Field Training	24 hrs.

**DPETAP  
TECHNICAL ASSISTANCE CATALOG  
ID NUMBER-TO-TITLE INDEX**

ID NUMBER	TECHNICAL ASSISTANCE TYPES AND TITLES, Cont.	DURATION
<b>PRACTICAL EXERCISES</b>		
TTX01	Tabletop Practical Exercise #1	1 hr.
TTX02	Tabletop Practical Exercise #2	1 hr.
TTX03	Tabletop Practical Exercise #3	1 hr.
TTX04	Tabletop Practical Exercise #4	1 hr.
TTX05	Tabletop Practical Exercise #5	2 hrs.
TTX06	Tabletop Practical Exercise #6	2 hrs.
TTX07	Tabletop Practical Exercise #7	2 hrs.
TTX08	Tabletop Practical Exercise #8	8 hrs. (Under development)

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## DETECTION TECHNOLOGY AND SURVEY

### \* WMD00

---

**INTRODUCTION TO WMD-RELATED HAZARDOUS MATERIALS – SUBSTANCES AND SYMPTOMS:** This 4-hour TechAssist is designed to provide a basic understanding of the chemical, biological and radiological/nuclear materials associated with WMD as well as the signs and symptoms of exposure.

**Intended Audience:** This TechAssist is intended for the leadership and cadre of all response community agencies -- Emergency Management, Fire/HAZMAT, Law Enforcement, and Emergency Medical Services personnel – who are not familiar with WMD-related hazardous materials.

**Prerequisite:** None.

**Class Size:** 12-24. (Note: Larger numbers may be accommodated with prior arrangement.)

### \* WMD01

---

**WMD DETECTION TECHNOLOGIES:** This 4-hour TechAssist covers detection technologies primarily associated with the term "Weapons of Mass Destruction (WMD)"; the capabilities and limitations of these technologies; the types of equipment that employ these technologies; and the CBRNE -- chemical, biological, radiological, nuclear, and explosive -- materials that can be detected. This TechAssist is intended as a refresher for personnel having prior knowledge of WMD-related hazardous materials.

**Intended Audience:** This TechAssist is presented first during a TAV and is a prerequisite for all personnel attending the follow-on equipment TechAssists the remainder of the TAV. Additionally, it is intended for the leadership and cadre of all response community agencies – Emergency Management, Fire/HAZMAT, Law Enforcement, and Emergency Medical Services personnel.

**Prerequisite:** Familiarity with WMD-related substances and symptoms.

**Class Size:** 12-24. (Note: Larger numbers may be accommodated with prior arrangement.)

### \* HDR01

---

**HOMELAND DEFENSE EQUIPMENT REUSE (HDER) PROGRAM TRAINING:** This 20-hour hands-on TechAssist comprises the following topical sections:

- **Radiation Detection Technologies:** This section provides an overview of the fundamentals of radiation. It includes biological effects of ionizing radiation, radiological threat, an overview of common radiological sources and devices, and the different technologies used to detect/monitor radiation.
- **Use of Ionization Chambers:** This section addresses the features, capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of Ionization Chambers. It includes hands-on demonstrations of various Ionization Chambers that the jurisdiction has obtained through the HDER Program. Students will install batteries, power on, perform background and check source tests and survey sealed sources to see how their specific meter(s) responds to different types of radiation.
- **Use of Geiger-Mueller Detectors:** This section addresses the features, capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of Geiger-Mueller (G-M) detectors. It includes hands-on demonstrations of various G-M detectors that the jurisdiction has obtained through the HDER program. Students will install batteries, power on, perform background and check source tests and survey sealed sources to see how their specific meter(s) responds to different types of radiation.
- **Use of Scintillation Detectors:** This section addresses the features, capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of Scintillation detectors. It includes hands-on demonstrations of various scintillation detectors that the jurisdiction has obtained through the HDER Program. Students will install batteries, power on, perform background and check source tests and survey sealed sources to see how their specific meter(s) responds to different types of radiation.

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## **HOMELAND DEFENSE EQUIPMENT REUSE (HDER) PROGRAM TRAINING, Cont.:**

- **Radiation Detection and Monitoring Exercises:** During this 4-hour series of hands-on practical exercises students will select appropriate radiological detection equipment; perform pre-operational checks on the selected instrument, and measure and document radiation fields. Students will participate in a shielding exercise in which different types of attenuators – between source and detector – will be used so that students can see how the different attenuators affect readings. Students will also demonstrate how distance and survey speed affect instrument readings.

**Intended Audience:** This TechAssist is intended for the leadership and cadre of all response community agencies – Emergency Management, Fire/HAZMAT, Law Enforcement, and Emergency Medical Services personnel – in metropolitan jurisdictions that have obtained equipment through the HDER Program.

**Prerequisites:** None

**Class Size:** 6 - 12. [Note: This number may be increased if the requesting jurisdiction has in its inventory more than six (6) of each of the applicable equipment types.]

### \* AWMD01

---

**ADVANCED WMD MATERIALS AND DETECTION TECHNOLOGIES:** This 8-hour TechAssist covers new developments in detection technologies primarily associated with the term "Weapons of Mass Destruction (WMD)"; and an in-depth study of WMD-related chemical, biological, and nuclear/radiological substances that can be detected as well as the signs and symptoms of exposure.

**Intended Audience:** This TechAssist is intended for experienced members of all emergency response community agencies -- Emergency Management, Fire/HAZMAT, Law Enforcement, and Emergency Medical Services personnel.

**Prerequisite:** Completion of WMD Technologies TechAssist (WMD01) or its equivalent.

**Class Size:** 12-24. (Note: Larger numbers may be accommodated with prior arrangement.)

### \* AWMD02 [Refer to footnote at course listing in Table of Contents]

---

**ADVANCED RADIOLOGICAL SURVEY TECHNIQUES:** This 16-hour TechAssist, developed by experienced health physicists, provides in-depth study of the proper conduct of sites contaminated by nuclear/radiological material. The TechAssist includes hands-on practice with radiological survey meters.

**Intended Audience:** This TechAssist is intended for experienced members of all emergency response community agencies – Emergency Management, Fire/HAZMAT, Law Enforcement, and Emergency Medical Services personnel – whose duties may require site and/or personnel surveys.

**Prerequisites:** Completion of both the WMD Detection Technologies (WMD01) course (WMD01) and the Ludlum Model 2241-2 Emergency Response Kit (DEQ03) or its equivalent.

**Class Size:** 6-12.

## **DETECTION EQUIPMENT OPERATION AND MAINTENANCE COURSES**

### \* DEQ01

---

**OPERATION AND MAINTENANCE (O&M) OF THE DRAEGER CIVIL DEFENSE SYSTEM (CDS):** This 2-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of the Draeger CDS. The TechAssist includes descriptions of the various Colorimetric Tubes available for use with this system.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.



# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## \* DEQ02

---

**O&M OF THE PHOTO IONIZATION DETECTOR (PID) MINIRAE PLUS:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of RAE Systems' MiniRAE Plus PID.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ03

---

**O&M OF THE LUDLUM MODEL 2241-2 EMERGENCY [RADIOLOGICAL] RESPONSE KIT:** This 4-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of Ludlum Measurements' Model 2241-2 Response Kit (including the Model 2241-2 Digital Scaler/Ratemeter, the Model 44-2 NaI Gamma Scintillator, and Model 44-9 Pancake Geiger-Muller Detector.)

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ04

---

**O&M OF THE CHEMICAL DETECTOR APD2000:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and preventive maintenance and troubleshooting of Environmental Technologies Group's "Advanced Portable Detector", APD2000.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ05

---

**O&M OF THE CHEMICAL AGENT DETECTOR SAW MINICAD MKII:** This 2-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and preventive maintenance of Microsensor Systems' SAW MiniCAD MkII.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## \* DEQ06

---

**USE OF CHEMICAL AGENT DETECTION MATERIALS -- M8, M9, AND M256A1 KIT.** This 1-hour TechAssist covers the proper use of Anachemia Canada's M256A1 Detection Kit and M8 Chemical Agent Detector Paper and Truetech's M9 Chemical Agent Detector Paper.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment inventory/maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class size:** 6-12.

## \* DEQ07

---

**O&M OF THE CAM CHEMICAL AGENT MONITOR W/PLUS S/W:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and preventive maintenance and troubleshooting of Graseby's CAM Chemical Agent Monitor with PLUS software.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ08

---

**O&M OF THE PASSPORT PID II:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and preventive maintenance and troubleshooting of MSA's Photo Ionization Detector (PID) Passport PID II.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ09

---

**O&M OF THE MULTI-GAS METER PASSPORT FIVESTAR ALARM:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and preventive maintenance and troubleshooting of MSA's Multi-Gas Meter, the Passport FiveStar Alarm Five-Gas Monitor.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ10

---

**USE OF BIOLOGICAL AGENT DETECTION MATERIALS -- Bio-Assay (SMART) Tickets.** This 1-hour TechAssist covers the proper use of materials designed to detect biological agents, New Horizons' Sensitive Membrane Antigen Rapid Test (SMART) Tickets.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment inventory/maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class size:** 6-12.

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## \* DEQ11

---

**O&M OF THE MULTIRAE PLUS MULTI-GAS METER W/PID:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and preventive maintenance and troubleshooting of RAE System's Multi-Gas Meter with Photo Ionization Detector (PID), the MultiRAE Plus.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ12

---

**O&M OF THE PHOTO IONIZATION DETECTOR (PID) MINIRAE 2000:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of RAE Systems' MiniRAE 2000 PID – including data logging capabilities.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ13

---

**O&M OF THE CHEMICAL AGENT DETECTOR HAZMATCAD PLUS:** This 2-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and preventive maintenance of Microsensor Systems' HAZMATCAD Plus.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ14

---

**OPERATION AND MAINTENANCE (O&M) OF THE DRAEGER CHIP MEASUREMENT SYSTEM (CMS):** This 2-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of the Draeger CMS. The TechAssist includes descriptions of the various chips available for use with this system.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## \* DEQ15

---

**O&M OF THE CHEMICAL AGENT DETECTION KIT, M18A3:** This 3-hour TechAssist covers the proper use of Truetech's M18A3 Chemical Agent Detector Kit.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment inventory/maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ16

---

**O&M OF THE LUDLUM MODEL 3 EMERGENCY [RADIOLOGICAL] RESPONSE KIT:** This 4-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of Ludlum Measurements' Model 3 Response Kit (including the Model 3 Analog Ratemeter, the Model 44-2 NaI Gamma Scintillator, and Model 44-9 Pancake Geiger-Muller Detector).

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ17

---

**O&M OF THE RADIATION PAGER - S:** This 1-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and calibration of Sensor Technology Engineering, Inc.'s Radiation Pager - S.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ18

---

**O&M OF THE TOXIRAE PLUS PHOTO IONIZATION DETECTOR (PID):** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and calibration of RAE System's ToxiRAE Plus PID.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ19

---

**O&M OF THE 451B IONIZATION CHAMBER SURVEY METER:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, and maintenance of Invision's 451B Ionization Chamber Survey Meter.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## \* DEQ20

---

**MULTIRAE PLUS FOR OPERATORS:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, calibration and troubleshooting of RAE System's Multi-Gas Meter with Photo Ionization Detector (PID), the MultiRAE Plus.

**Intended Audience:** This TechAssist is intended for response personnel having training and/or equipment operation responsibilities. Maintenance of the MultiRAE Plus is not covered in this TechAssist.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ21

---

**O&M OF THE GUARDIAN BIO THREAT ALERT (BTA) SYSTEM:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, calibration and troubleshooting of Alexeter's BTA System.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ22

---

**O&M OF THE THERMO ELECTRON FH 41 B MULTI-PURPOSE RADIATION METER:** This 2-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, calibration and troubleshooting of Thermo Electron's FH 41 B Multi-Purpose Radiation Meter.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ23

---

**O&M OF THE THERMO ELECTRON FH 40 G DOSE RATE MEASURING UNIT:** This 4-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, calibration and troubleshooting of Thermo Electron's FH 40 G Dose Rate Measuring Unit. **Note: Those that have acquired the FHT 40 NBR Probe should request that the optional training module for the probe be scheduled for presentation.**

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## \* DEQ24

---

**USE OF BIOLOGICAL AGENT DETECTION MATERIALS – BIO-ASSAY (SMART II) TICKETS.** This 1-hour TechAssist covers the proper use of materials designed to detect biological agents, New Horizons' newest Sensitive Membrane Antigen Rapid Test (SMART II) Tickets.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment inventory/maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class size:** 6-12.

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## \* DEQ25

---

**O&M OF THE PHOTO IONIZATION DETECTOR (PID) MINIRAE PLUS CLASSIC:** This 3-hour, hands-on TechAssist covers the capabilities and limitations, pre-operation, operation, preventive and corrective maintenance of RAE Systems' MiniRAE Plus Classic PID – including data logging capabilities.

**Intended Audience:** This TechAssist is intended for response personnel having training, equipment operation and/or equipment maintenance responsibilities.

**Prerequisite:** Completion of WMD Detection Technologies (WMD01) course.

**Class Size:** 6-12.

## PERSONNEL DECONTAMINATION COURSES

### \* DEC01

---

**WMD MASS CASUALTY PERSONNEL DECONTAMINATION:** This 24-hour TechAssist presents an in-depth study of the principles and procedures of mass casualty decontamination. Training also involves high-energy tabletop exercises and practical applications to reinforce the objectives. Students undergo a rigorous analysis of a mass casualty incident from initial attack to clean up and reconstitution. Finally, students perform decontamination in four contaminated [simulated] personnel situations: emergency responder, ambulatory victim, non-ambulatory victim, and pre-transport/ER. As in all DPETAP hands-on evolutions, Safety will be stressed throughout the TechAssist.

**Intended Audience:** This TechAssist is intended for members of all emergency response community agencies -- Emergency Management, Fire/HAZMAT, Law Enforcement, and Emergency Medical Services personnel.

**Prerequisite:** Completion of WMD detection Technologies (WMD01)

**Class Size:** Up to 25 students

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## PERSONAL PROTECTIVE EQUIPMENT COURSES

### \* PPE01

---

**WMD PERSONAL PROTECTIVE EQUIPMENT (PPE) FIELD TRAINING:** This 24-hour hands-on course comprises the following topical modules:

- **Introduction to WMD Personal Protective Equipment (PPE):** This module provides an overview of all the components and the technologies employed in various types of PPE to protect first responders from various WMD threats. Both the Occupational Health and Safety Administration (OSHA) and National Firefighter Protection Association's (NFFPA) standards are addressed to help familiarize first responders with the different levels of protection and the conditions under which they are employed. This module includes station training and a hands-on lab.
- **Considerations for the Selection of PPE:** This module addresses regulatory, environmental, safety and economic considerations for selection and use of WMD PPE.
- **Hot Area Operations:** This instructor-led lecture and practical exercise includes demonstration of the sequential and regulatory procedures for donning and doffing various levels of PPE. Instructors perform monitoring and detection procedures employing the most commonly used detection equipment. Extraction of an injured person is demonstrated so the students can see the considerations associated with performing extractions while in PPE. The module concludes with a demonstration of emergency decontamination procedures.
- **PPE Practical Exercise:** This module consists of a two-part, 12-hour practical exercise. Students put into practice the tactics and techniques that they learned during the prior modules. Students don/doff various levels of PPE, perform monitoring/detection and data logging, report results, extract casualties from a [simulated] contaminated area, and perform emergency decontamination while in PPE. As in all DPETAP hands-on evolutions, safety will be stressed throughout the exercise.

**Intended Audience:** This course is intended for experienced members of all emergency response, community agencies, Emergency Management, Fire / HAZMAT, Law Enforcement and Emergency Medical Services.

**Prerequisites:** Completion of Introduction to WMD-Related Hazardous Materials – Substances and Symptoms (WMD00) and WMD Detection Technologies (WMD01) or the equivalents; completion of a minimum of five (three (3) chemical detection, one (1) radiological detection, and one (1) biological detection) Detection Equipment Operation and Maintenance TechAssists (DEQ01-23). [Note: If students have not received WMD01 (or equivalent) training within 90 days prior to this TechAssist, then WMD01 will be presented in its entirety between modules two and three of the PPE TechAssist.]

**Notes:** (1) DPETAP requires that all students enrolled in this TechAssist provide proof of medical clearance (certificate/card) prior to donning Level A or B PPE. (2) All DPETAP PPE Instructional Teams include at least one certified EMT to ensure the safety of all participants.

**Class Size:** 12-16.

## PRACTICAL EXERCISES

### \* TTX01

---

**TABLETOP PRACTICAL EXERCISE:** This 1-hr. practical exercises presents students with a potential WMD event scenario that requires student teams to evaluate the conditions, determine the technology (ies) that will be effective, decide on the types of detection equipment to be used in each situation, describe how they would employ the equipment selected, and present their findings to the entire class. "Hot washes" and group discussions follow student team presentations.

**Scenario Setting:** Urban metropolitan transit station (sub-surface). Could involve: CBRN.

**Intended Audience:** This exercise is presented on the last day of training and is intended for all response personnel who have attended the TechAssists previously presented during the TAV. [Note: The exercise is designed to reinforce concepts presented during the WMD Detection Technologies course as well as those presented during the various equipment operation and maintenance TechAssists. The exercise challenges students to "think outside the box" in their decision-making.]

**Prerequisite:** Completion of TechAssists presented during the TAV.

**Class Size:** 6-12

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## \* TTX02

---

**TABLETOP PRACTICAL EXERCISE:** This 1-hr. practical exercises presents students with a potential WMD event scenario that requires student teams to evaluate the conditions, determine the technology (ies) that will be effective, decide on the types of detection equipment to be used in each situation, describe how they would employ the equipment selected, and present their findings to the entire class. "Hot washes" and group discussions follow student team presentations.

**Scenario Setting:** Mixed-use site – suburban industrial, rail, residential. Could involve: CBRN.

**Intended Audience:** This exercise is presented on the last day of training and is intended for all response personnel who have attended the TechAssists previously presented during the TAV. [Note: The exercise is designed to reinforce concepts presented during the WMD Detection Technologies course as well as those presented during the various equipment operation and maintenance TechAssists. The exercise challenges students to “think outside the box” in their decision-making.]

**Prerequisite:** Completion of TechAssists presented during the TAV.

**Class Size:** 6-12

## \* TTX03

---

**TABLETOP PRACTICAL EXERCISE:** This 1-hr. practical exercises presents students with a potential WMD event scenario that requires student teams to evaluate the conditions, determine the technology (ies) that will be effective, decide on the types of detection equipment to be used in each situation, describe how they would employ the equipment selected, and present their findings to the entire class. "Hot washes" and group discussions follow student team presentations.

**Scenario Setting:** Urban international airport and surrounding community. Could involve: CBRN.

**Intended Audience:** This exercise is presented on the last day of training and is intended for all response personnel who have attended the TechAssists previously presented during the TAV. [Note: The exercise is designed to reinforce concepts presented during the WMD Detection Technologies course as well as those presented during the various equipment operation and maintenance TechAssists. The exercise challenges students to “think outside the box” in their decision-making.]

**Prerequisite:** Completion of TechAssists presented during the TAV.

**Class Size:** 6-12

## \* TTX04

---

**TABLETOP PRACTICAL EXERCISE:** This 1-hr. practical exercises presents students with a potential WMD event scenario that requires student teams to evaluate the conditions, determine the technology (ies) that will be effective, decide on the types of detection equipment to be used in each situation, describe how they would employ the equipment selected, and present their findings to the entire class. "Hot washes" and group discussions follow student team presentations.

**Scenario Setting:** Multiple -- Mid-town and suburban power generation plant. Could involve: CBRNE.

**Intended Audience:** This exercise is presented on the last day of training and is intended for all response personnel who have attended the TechAssists previously presented during the TAV. [Note: The exercise is designed to reinforce concepts presented during the WMD Detection Technologies course as well as those presented during the various equipment operation and maintenance TechAssists. The exercise challenges students to “think outside the box” in their decision-making.]

**Prerequisite:** Completion of TechAssists presented during the TAV.

**Class Size:** 6-12



# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## \* TTX05

**TABLETOP PRACTICAL EXERCISE #5:** This 2-hour practical exercise presents students with potential radiological WMD event scenarios that require teams to evaluate the conditions, determine the technology (ies) that will be effective, decide on the type(s) of radiological detection equipment to be used in each situation, describe how they would employ the equipment selected, and present their findings to the entire class. "Hot washes" and group discussions follow student team presentations.

**Scenario Setting:** Light industrial or medical. Involves R.

**Intended Audience:** This exercise is presented on the last day of training and is intended for all response personnel who have attended the HDER and/or DPETAP TechAssists previously presented during the TAV. [Note: This exercise is designed to reinforce concepts presented during the Radiation Detection Technologies portion of the HDER TechAssist (HDR01) as well as those presented during the various DPETAP radiological detection equipment operation and maintenance TechAssists. The exercise is intended to challenge students to "think outside the box" in their decision-making.]

**Prerequisite:** Completion of TechAssists presented during the TAV.

**Class Size:** 6-12 (DPETAP), 6-20 (HDER)

## TTX06

---

**TABLETOP PRACTICAL EXERCISE #6:** This 2-hour practical exercise presents students with a potential Weapons of Mass Destruction (WMD) event scenario that requires teams to evaluate the conditions, determine the technology (ies) that will be effective, decide on the type(s) of detection equipment to be used in each situation, describe how they would employ the equipment selected, and present their findings to the entire class. "Hot washes" and group discussions follow student team presentations.

**Scenario Setting:** Urban – downtown and surrounding area...county courthouse and hospital. Could involve CBRNE.

**Intended Audience:** This exercise is presented on the last day of training and is intended for all response personnel who have attended WMD Detection Technologies and Equipment O&M TechAssists presented during the TAV. This exercise will challenge students to "think outside the box" in their decision-making. Note: This TTX is designed to encourage the integration of public safety organizations.

**Prerequisite:** Completion of TechAssists presented during the TAV.

**Class Size:** 6-12

## \* TTX07

---

**TABLETOP PRACTICAL EXERCISE #7:** This 2-hour practical exercise presents students with potential radiological WMD event scenarios that require teams to evaluate the conditions, determine the technology (ies) that will be effective, decide on the type(s) of radiological detection equipment to be used in each situation, describe how they would employ the equipment selected, and present their findings to the entire class. "Hot washes" and group discussions follow student team presentations.

**Scenario Setting:** Light industrial or medical. Involves R.

**Intended Audience:** This exercise is presented on the last day of training and is intended for all response personnel who have attended the HDER and/or DPETAP TechAssists previously presented during the TAV. [Note: This exercise is designed to reinforce concepts presented during the Radiation Detection Technologies portion of the HDER TechAssists (HDR01) as well as those presented during the various DPETAP radiological detection equipment operation and maintenance TechAssists. The exercise is intended to challenge students to "think outside the box" in their decision-making.]

**Prerequisite:** Completion of TechAssists presented during the TAV.

**Class Size:** 6-12 (DPETAP), 6-20 (HDER)

# DPETAP TECHNICAL ASSISTANCE CATALOG DETAILED DESCRIPTIONS

## \* TTX08

---

**TABLETOP PRACTICAL EXERCISE #8:** This 8-hour practical exercise presents students with a potential Weapons of Mass Destruction (WMD) event scenario that requires teams to evaluate the conditions, determine the technology (ies) that will be effective, decide on the type(s) of detection equipment to be used in each situation, describe how they would employ the equipment selected, and present their findings to the entire class. "Hot washes" and group discussions follow student team presentations.

**Scenario Setting:** Urban – heavily traveled waterway and bridge overpass. Could involve CBRNE.

**Intended Audience:** This complex exercise is presented on the last day of training and is intended for all response personnel who have attended WMD Detection Technologies and Equipment O&M TechAssists presented during the TAV. This exercise will challenge students to "think outside the box" in their decision-making. Note: This TTX is designed to encourage the integration of public safety organizations.

**Prerequisite:** Completion of TechAssists presented during the TAV.

**Class Size:** 6-12