

National Decontamination Team

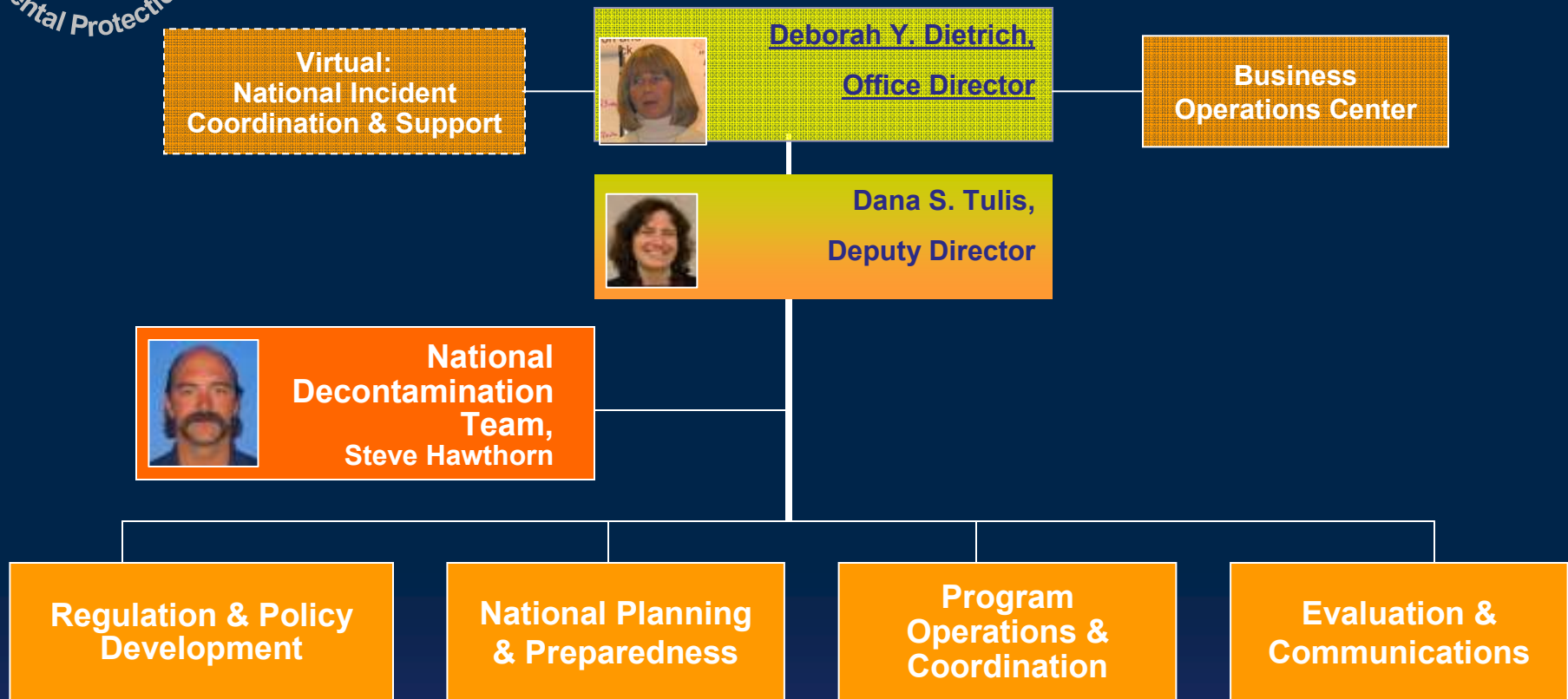
Curtis P. Snook, MD, FACEP, FACMT
Medical Officer, U.S. EPA
Office of Emergency Management
Cincinnati, OH



August 8th, 2006
R4 RRT meeting
NKU Med. Ctr., KY



Office of Emergency Management (OEM)



- ◆ The new OEM consolidates OSWER's emergency prevention, preparedness, and response duties by joining together the Oil Program Center, Emergency Response & Removal Center, and the Chemical Emergency Preparedness and Prevention Office.

An OEM website is currently under construction.



NDT

- ◆ Identified void in response needs
 - WTC
 - Anthrax responses
- ◆ First government special team dedicated to WMD decon activities within EPA
- ◆ Immediate deployment (24/7)





NDT Mission:

- ◆ The NDT is a scientific and technical resource for the coordination, communication and delivery of decon expertise to local, national and international agencies.
- ◆ To fully support and respond to events related to WMD, terrorism or any Incidence of National Significance.
- ◆ NDT provides a unique combination of skills that supports operational implementation, planning, policy development and research direction for decontamination activities contributing to the protection of human health, the environment, and national security.



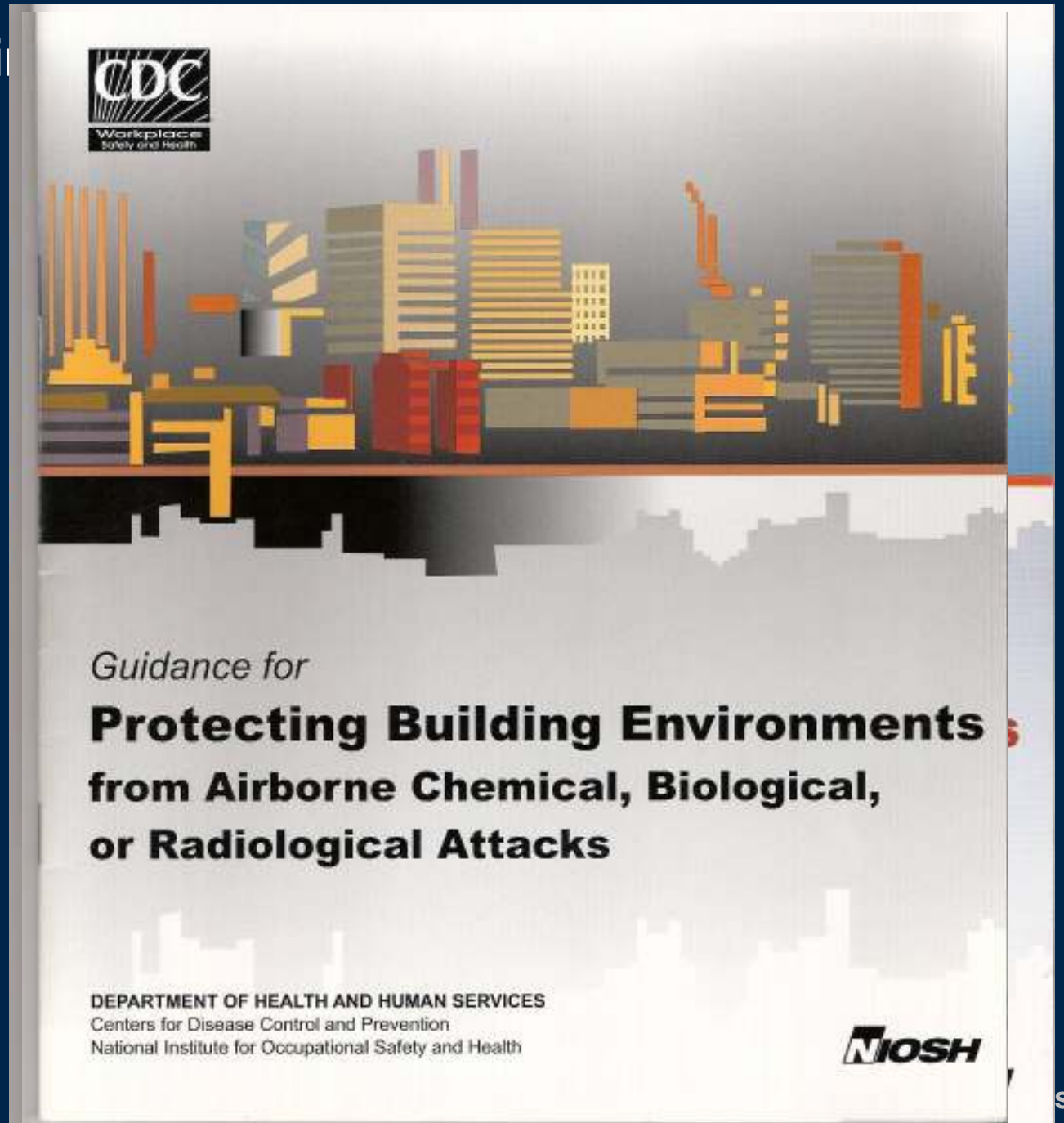
Engi



Leroy Mickelsen, M.S.
PE
Engineer



Anthony Zimmer, Ph.D.
PE, CIH
Engineer



Toxicologists, Chemist, and Medical Officer



Deborah McKean, Ph.D.
Toxicologist



Michael Ottlinger, Ph.D.
DABT
Biochemist/Toxicologist



Jeanelle Martinez, Ph.D.
Toxicologist



Larry Kaelin
Chemist



Curtis Snook, MD
Medical Officer



Steve Hawthorn
Environmental Scientist,
Team Leader



Natalie Koch
Environmental Protection Specialist/
Program Analyst



Lessa Givens
Management Analyst



Paul Kudarauskas
DOD Detailee

•Previous Detailees:

- AmyJean Lussier, R1, John McKeown, R8, Christine Wagner, R3



Airborne **S**pectral **P**hotometric
Environmental **C**ollection **T**echnology

ASPECT

- ◆ ASPECT is the Nation's ONLY 24/7 airborne emergency response chemical/radiological plume mapping.
- ◆ ASPECT is activated by a phone request through respective EPA emergency response regional offices.
- ◆ The **Los Alamos National Laboratory**, Chemistry Division provides technical support.

Tim Curry (POC) 816-718-4281

Mark Thomas (POC) 816-718-4271





Prepare & Respond - NDT Activities

- ◆ **Portfolio building (website)**
- ◆ **Training**
- ◆ **Katrina response**
- ◆ **Connecting and partnering**
 - **A Water Security Handbook: Planning for and Responding to Drinking Water Contamination Threats and Incidents**
 - primarily for water resource response managers
 - **Joint Field Office (JFO) Standard Operating Procedures (SOP)**
 - **JFO SOP Annexes, and the**
 - **JFO Field Operations Guide (FOG)**
 - to assist JFO personnel in doing their jobs).
 - **NRP Notice of Change, along with the attached NRP Quick Reference Guide,**



Prepare & Respond - NDT Activities

- ◆ Portfolio building (website)
- ◆ Training
- ◆ Katrina response
- ◆ Connecting and partnering
- ◆ *Remediation Planning and Technical Documents*
 - DHHS - Response to a Ricin Incident: for Federal, State, and Local Public Health and Medical Officials
 - Anthrax Technical Document
 - DOL/OSHA draft guidance on Avian Flu
 - DHS/FEMA's 2006 Hurricane Season CONOPS
 - DHS/EPA - Restoration Plan for Major International Airports after a Bioterrorist Attacks



Portfolio Building Activities

Address <http://65.199.52.242/decon-external/agentSelection.do>

U.S. Environmental Protection Agency

Office of Emergency Management - Decon[tamination] Portfolio

Recent Additions | Contact Us | Print Version Search: **GO**

EPA Home > Office of Emergency Management > [Decon Home](#) >

Please select an Category:

Category :

- Biological
- Chemical
- Explosives
- Radiological
- Unknown

General Information

Hotline

Glossary

Frequently Asked Questions

Contact Us/Feedback

| Agent | Description |
|----------------|---|
| Abrin | Abrin is a natural poison that is found in the seeds of a plant called the rosary pea or jequirity pea. These seeds are red with a black spot covering one end. Abrin is similar to ricin, a toxin that is also found in the seeds of a plant (the castor bean plant). However, abrin is much more poisonous than ricin. |
| Anthrax | Anthrax is a serious disease caused by <i>Bacillus anthracis</i> , a bacterium that forms spores. A bacterium is a very small organism made up of one cell. Many bacteria can cause disease. A spore is a cell that is dormant (asleep) but may come to life with the right conditions. |
| Ricin | Ricin is a poison that can be made from the waste left over from processing castor beans. |
| Sarin | Sarin is a human-made chemical warfare agent classified as a nerve agent. Nerve agents are the most toxic and rapidly acting of the known chemical warfare agents. They are similar to certain kinds of pesticides (insect killers) called organophosphates in terms of how they work and what kind of harmful effects they cause. However, nerve agents are much more potent than organophosphate pesticides. |
| Sulfur Mustard | Sulfur mustard is a type of chemical warfare agent. These kinds of agents are called vesicants or blistering agents, because they cause blistering of the skin and mucous membranes on contact. Sulfur mustard is also known as mustard gas or mustard agent, or by the military designations H, HD, and HT. It sometimes smells like garlic, onions, or mustard and sometimes has no odor. It can be a vapor (the gaseous form of a liquid), an oily-textured liquid, or a solid. Sulfur mustard can be clear to yellow or brown when it is in liquid or solid form. |



Portfolio Building Activities



EMERGENCY RESPONSE TOOLS

◆ Software TOOLS being evaluated include:

- CoBRA
- WISER - NLM
- Data Dictionary
- Chemical companion
- DADS
- ECAT
- RAT
- BDR
- TEVA
- CB Building Protection Tool

Wireless Information System
for Emergency Responders



<http://wiser.nlm.nih.gov/>



◆ Databases

- Chemical and Biological Analytical Methods Database (ECBC)



Emergency Consequence Assessment Tool (ECAT)

What is ECAT?

- Interactive web-based software tool
- Rapid access to key information during environmental emergency

Who is ECAT designed for?

- First responders
- Health advisors
- Senior emergency management officials

Kevin Garrahan, PhD, PE, Project Officer
TCAD / NHSRC garrahan.kevin@epa.gov;
phone: 202-564-3336



ECAT Assesses CBR Threats

Event Management

Agent Information

Quick Reference Guides
TRR Factsheets
Information Sources
Agent FAQ

Tools

Risk Communication
Message Maps)
AZUS Database
AMEO
PANET
CIT
BHelpline
DRTool
Unit Conversion

Links

Local Weather
Blue Book
American Red Cross
U.S. Coast Guard
PA Emergency
Response Team (ERT)

Notification Centers

Report Terrorist Activity
RC
DC

Log Out

THREAT IDENTIFICATION (SCENARIO SELECTION): General Information / Agent Selection

Cancel

Save and Exit

Save and Continue >>

(Required) Select the agent. You will be directed to provide information to aid in identification of an unknown agent. If a biological agent is suspected, simple [screening tests](#) have been developed.

-- Select Agent --
-- Select Agent --
Unknown
Anthrax
Avian flu
Cesium
Cholera
Dysentery (Shigella)
E. coli
Hepatitis A
Hepatitis B
Mustard Gas
Parathion
Ricin
Sarin
Smallpox
Tularemia
VX
Vibrio vulnificus

territory where the incident occurred: -- Select State or Territory --

ropolitan area nearest to where the incident occurred:

of the incident: February 14 2006 03 52 AM PM

Latitude of the incident:
(use decimal format)

Longitude of the incident:
(use decimal format)

Cancel

Save and Exit

Save and Continue >>

Threat Identification (Scenario Selection)

General Information / Agent Selection

- Threat Information / Identification
- Agent-specific Information

Exposure Assessment

- Receptors, Pathways, and Exposure Parameters
- Exposure Concentration

Toxicity Assessment

- Symptoms / Health Effects
- Toxicity Values

Risk Characterization

- Risk Characterization
- Benchmarks/Advisories

Risk Management

- Evacuation / Stop Use or Reuse
- Personal Protective Equipment
- Treatment
- Decontamination / Confirmation
- Cleanup Levels
- Waste Stream Disposal Options
- Detection Methods



Building Decontamination Residue (BDR) Disposal Decision Support Tool

◆ Training and Planning tool

- Allows multiple scenarios to be examined
- Encourage discussions with facilities prior to any event
- Development of simple scenarios that can be fleshed out to have more detail and shared with others

◆ Starting point for clean-up

- Quick reference
- Backup to responder expertise

- ◆ **Paul Lemieux** (lemieux.paul@epa.gov)
<http://www2.ergweb.com/bdrtool/login.asp>



Sample Facility Info Query

View Facility Information

The list of candidate facilities matching your criteria are listed below. For reference, the criteria used to conduct this search is also listed below.

Incinerator types: Hazardous Waste
EPA Regions: 2

[Print Facilities](#)

| Name | Address | State | EPA Region | Contact Information | Select All |
|--|-------------------------------------|-------|------------|--|--------------------------|
| Eastman Kodak Company | 343 State Street, Rochester | NY | 2 | Michael van Norstrand (716) 477- 1307 | <input type="checkbox"/> |
| General Electric Company, Silicones Products Division | 260 Hudson River Road, Waterford | NY | 2 | Mary Garbauskas (518) 237- 3300 | <input type="checkbox"/> |
| Safety Kleen (BDT), Inc. | 4255 Research Pkwy, Clarence | NY | 2 | Timothy van Domelen (716) 759- 2868 | <input type="checkbox"/> |

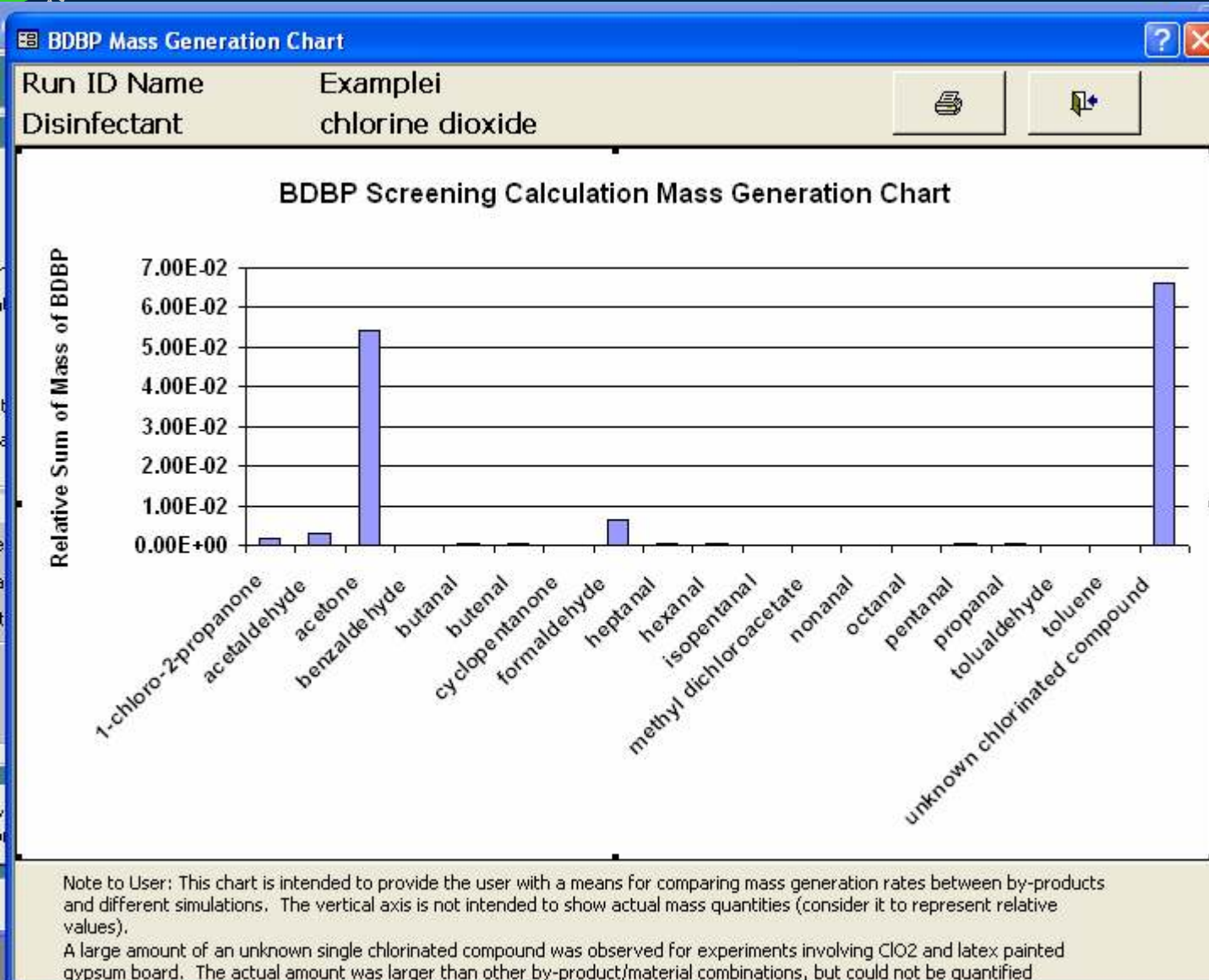
[Make a New Selection](#)



Disinfecting Agent Decision Support (DADS)

- ◆ Building disinfection by-products (BDBP): Experiment evaluation and decision tool
- ◆ Allows the user to evaluate specific disinfectants to estimate the time for re-entry
- ◆ 24 building materials built in
- ◆ By-product identification for each disinfectant

DADS



Report Options

- Comparison
- Chart
- Detail
- Detail
- Summary
- Information Summary
- Graph

70 80



Prepare & Respond - NDT Activities

- ◆ Portfolio building
- ◆ Training
- ◆ Katrina response
- ◆ Connecting and partnering



Training Activities

- ◆ Hazwopper
- ◆ NDT – level A entry training
- ◆ ICS 300-400
- ◆ Specialized ICS training
 - Incident Commander
 - Safety Officer
 - Environmental Unit Leader
- ◆ NDT planning 3 day “WMD Decontamination Workshop”



Prepare & Respond - NDT Activities

- ◆ Portfolio building
- ◆ Training
- ◆ Katrina response
- ◆ Connecting and partnering



Katrina Response Activities

- ◆ Incident Command
 - Scientific Support Coordinator
- ◆ Operations Section
 - Environmental Assessment Branch Chief
 - Air Operations
 - Field Supervisor
- ◆ Planning Section
 - Environmental Unit Leader
 - Air Technical Specialist



Role of Environmental Unit

- ◆ “Provide technical and scientific expertise and capabilities to support incident planning with regard to actual or potential significant threat to public health, welfare and the environment.”



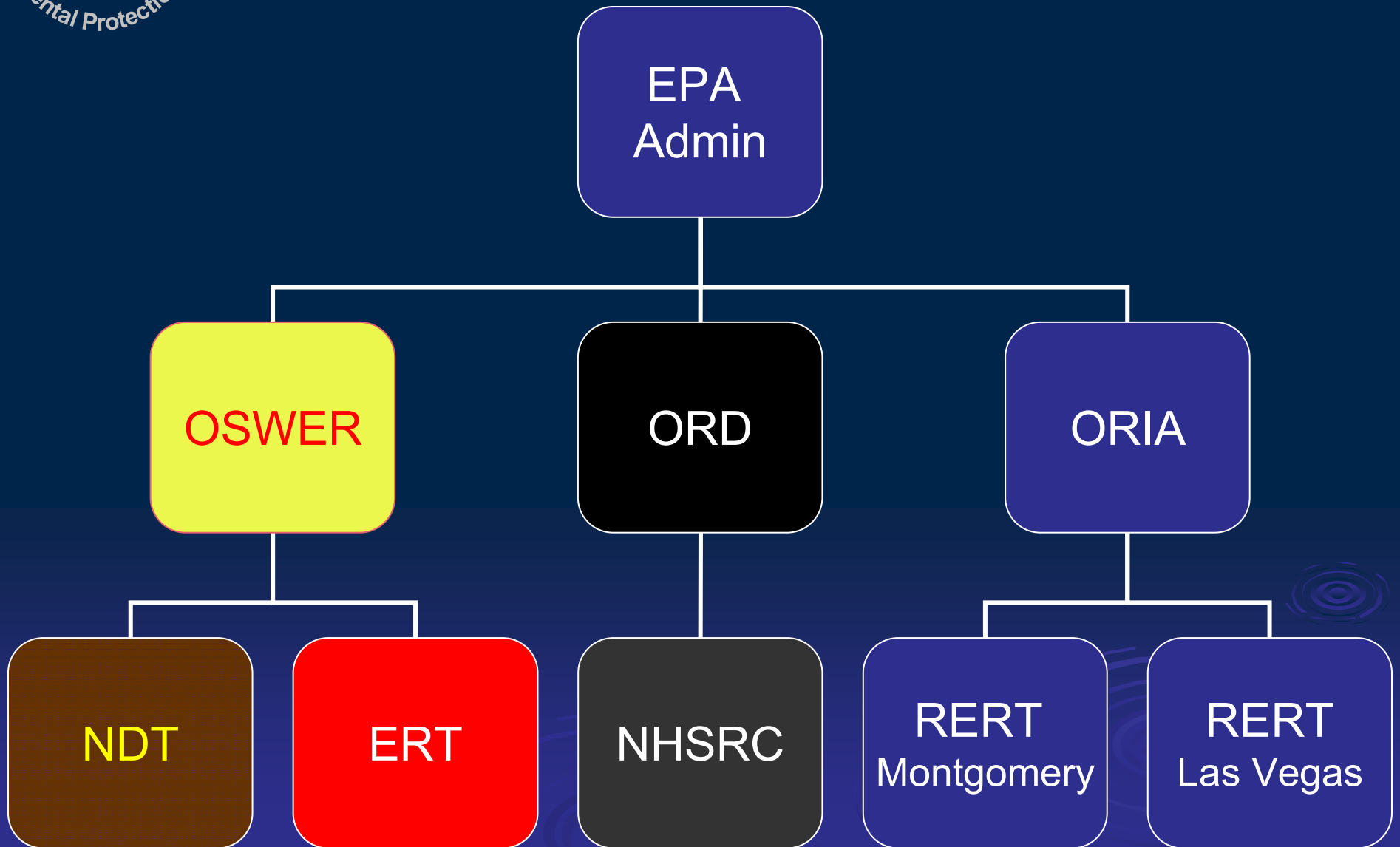


Prepare & Respond - NDT Activities

- ◆ Portfolio building
- ◆ Training
- ◆ Katrina response
- ◆ Connecting and partnering



Connecting and Partnering Activities





National Homeland Security



REPORT ON

Destruction of Spores on Building Decontamination Residue in a Commercial Autoclave

National Homeland Security Research Center
Office of Research and Development

Decontamination
&
Consequence
Management
Nancy Adair



Technology
Testing
Evaluation
Eric Koglin

<http://www.epa.gov/nhsrc/>



National Homeland Security Research Center

ORD

Office of Research & Development

**Decontamination
&
Consequence
Management**
Nancy Adams

**Water
Infrastructure
Protection**
Kim Fox

**Threat
& Consequence
Assessment**
Cindy
Sonich-Mullin

**Response
Capacity
Enhancement**
Oba Vincent

**Technology
Testing
& Evaluation**
Eric Koglin



National Homeland Security Research Center

ORD

Office of Research & Development

**Decontamination
&
Consequence
Management**
Nancy Adams

**Water
Infrastructure
Protection**
Kim Fox

**Threat
& Consequence
Assessment**
**Cindy
Sonich-Mullin**

**Response
Capacity
Enhancement**
Oba Vincent

**Technology
Testing
& Evaluation**
Eric Koglin



REPORT

Standardized Analytical Methods for Use During Homeland Security Events

Revision 2.0

Office of Research and Development
National Homeland Security
Research Center



Decontamination
&
Consequence
Management
Nancy Adams

Technology
Testing
Evaluation
Koglin

<http://www.epa.gov/nhsrcl/>



National Homeland Security Research Center

ORD

Office of Research & Development

**Decontamination
&
Consequence
Management**
Nancy Adams

**Water
Infrastructure
Protection**
Kim Fox

**Threat
& Consequence
Assessment**
Cindy
Sonich-Mullin

**Response
Capacity
Enhancement**
Oba Vincent

**Technology
Testing
& Evaluation**
Eric Koglin



How will the NDT “fit” in the response?

- ◆ 24/7 availability
- ◆ Will assist the EPA OSC
- ◆ Will operate under the NIMS within ICS
- ◆ Will be available to participate in drills and exercises

NATIONAL DECON TEAM # - 800-329-1841



NDT Capabilities

- ◆ Primary function is to provide scientific and operational support to OSC (from initial to final stages of an incident)
- ◆ Provide expertise in CBR decontamination (for buildings, transportation, agriculture, food, open space, etc.)
- ◆ Accessibility to other decon resources (e.g., other Federal agencies, laboratories, academia, etc.)
- ◆ 24/7/365 emergency response, and chemical/radiological plume mapping capability



NDT Contact Information



- ◆ Steve Hawthorn, Decon Team Leader
hawthorn.steve@epa.gov
- ◆ Natalie Koch, Program Analyst
koch.natalie@epa.gov
- ◆ Main Phone Number: **(513) 487-2420**