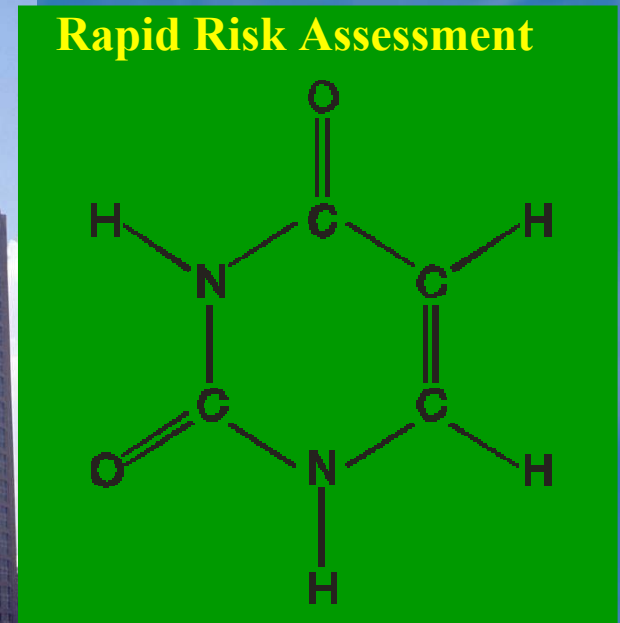
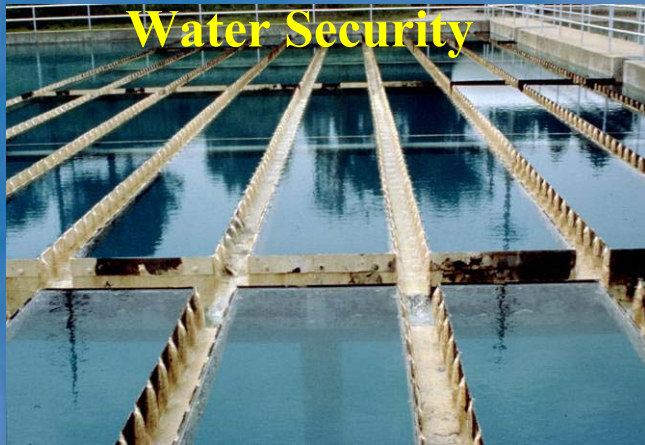


Biological and Chemical Threats Panel

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E. Timothy Oppelt, Director, EPA

Director, EPA National Homeland Security Research Center

EPA Roles in Homeland Security

- (1) hazardous materials emergency response**
- (2) protecting water infrastructure**
- (3) clean up following chemical or biological attack**
- (4) reducing vulnerability of the chemical & hazardous materials sector**
- (5) research to protect water infrastructure & buildings**

Research and Development at EPA



- 1,950 employees
- \$700 million budget
- \$100 million extramural research grant program
- 13 lab or research facilities across the U.S.
- Credible, relevant and timely research results and technical support that inform EPA policy decisions

EPA Homeland Security Research

- **National Homeland Security Research Center**
- **3 years, \$50m FY'03**
- **Chemical/biological terror attack**
- **Buildings and water infrastructure**
- **User guidance on protection & response**
- **collaboration**

Program Components

- **Characterization/Detection**
- **Prevention/Containment**
- **Decontamination/Mitigation**
- **Residue Disposal**
- **Risk Assessment**
- **Technology Verification**
- **Technical Assistance**

Research Program Scope

- ◆ **Biological & chemical contaminants**
 - **Pathogenic bacteria, viruses, bacterial toxins**
 - **Chemical warfare agents**
 - **Toxic industrial chemicals**

- ◆ **Radiologic contamination (water)**

Role of Standard-Setting Organizations

- **integrate user/provider expectations**
- **consensus measures of performance**
- **establish measurement protocols**
- **coordination among numerous relevant standards organizations**

Challenges Related to Homeland Security

- **matching equipment and operational standards to public health and cost-effectiveness endpoints**
- **broad array of equipment/systems/ interoperability needs
e.g. detectors, personnel protection, filtration, alarms, decontamination, treatment, disposal communication**

Challenges Related to Homeland Security (continued)

- **complexity of contaminants & contamination scenarios**
- **credible standards vs. time urgency for decisions**
- **coordination among standards organizations and with government**
- **coordination among Federal standards setting organizations**
- **performance verification/certification**

Questions for Participants

- **How to move ahead?**
- quickly, but appropriately
- **Who needs to be involved?**
- **What areas/activities are most important/first?**
- **Other perspectives?**