US ERA ARCHIVE DOCUMENT



# EPA Environmental Technology Verification Program

### Verified Technologies



#### **Advanced Monitoring Systems Center**

#### **Air Monitoring**

- Airborne Leak Detection Technologies
- Alternatives to Nuclear Gauges
- Alternatives to Radiography Cameras
- Ambient Ammonia Sensors
- Ambient Fine Particulate Monitors
- Ammonia Continuous Emission Monitors
- Chemiluminescent Ozone Analyzers
- Carbon Sequestration Monitoring Technologies
- Dioxin Emission Monitoring Systems
- Field Portable Ion Chromatographs
- Hydrogen Sulfide Monitors
- Leak Detection and Repair Technologies
- Mercury Emission Monitors
- Multi-Metal Continuous Emission Monitors
- Nitrogen Oxide (NO/NOx) Portable Analyzers
- On-Board Emissions Monitors
- Optical Open-Path Monitors
- Ozone Indicator Cards
- Personal Cascade Impactor Samplers
- Portable Multi-Gas Emissions Analyzers
- Site Characterization Techniques for Vapor Instrusion

#### **Water Monitoring**

- Arsenic Test Kits
- Beach Monitoring
- Ballast Water Exchange Screening Tools
- Escherichia Coli (E. coli) and Total Coliform Detection in Drinking Water
- Enzymatic Test Kits\*
- Estrogen ELISA Kits
- Fungal Contamination Monitors
- Immunoassay Test Kits for Atrazine
- Immunoassay Test Kits for Biotoxins\*
- Immunoassay Test Kits for Microcystins
- Mobile Mass Spectrometers\*
- Multi-Parameter Water Monitors for Distribution Systems\*
- Multi-Parameter Water Quality Probes
- Multi-Parameter Water Sensor Technology
- Nitrate Sensors for Ground Water Monitoring
- Nutrient Monitoring Technologies for Industrial Applications
- Passive Ground Water Samples
- Portable Cyanide Analyzers\*
- Portable Water Analyzers/Test Kits (nitrate/nitrite)
- Rapid Polymerase Chain Reaction Technologies\*
- Rapid Toxicity Testing Systems\*
- Turbidimeters
- Wastewater Toxicity Monitors

#### Soils, Surfaces, and Site Characterization

- Asbestos Soil Samplers
- Decision Support Software
- Detecting Toxicity in Soil
- Field Explosives Detection Technologies
- Field Polychlorinated Biphenyl (PCB) Detection Technologies
- Field Portable Gas Chromatographs/Mass Spectrometers for Measurement of Volatile Organics in Soil, Water, and Soil Gas
- Field Portable X-Ray Fluorescence Analyzers for Measurement of Metals in Soil
- Ground Water Sampling Devices
- Laser Induced Fluorescence Sensors for In-Situ Detection of Petroleum Hydrocarbons
- Lead in Dust Detection Technologies
- Radio Frequency Identification Devices
- Sediment Sampling Technologies
- Soil/Soil Gas Sampling Technologies
- Wellhead Monitoring Technologies for Measurement of Chlorinated Volatile Organic Compounds (VOCs) in Water

#### Air Pollution Control Technology Center

- Baghouse Filtration Products
- Dust Suppression and Soil Stabilization Products
- Emulsified Fuels
- Indoor Air Quality Products
- Mobile Sources Devices
- Mobile Sources Fuels
- Mobile Sources Selective Catalytic Reduction (SCR)
- Nitrogen Oxide (NO<sub>x</sub>) Control Technologies for Stationary Sources
- Outdoor Wood-Fired Hydronic Heaters
- Paint Overspray Arrestors
- Volatile Organic Compounds (VOCs) Emission Control Technologies

#### **Drinking Water Systems Center**

- Alternative Filtration and Media Technologies for Reduction of
  - Microbiological and Particulate Contaminants
- Membrane Filtration Systems for Reduction of Microbiological and Particulate Contaminants
- Point-of-Use Devices for Reduction of Microbiological and Chemical Agents\*
- Technologies for Reduction of Arsenic and Inorganic Chemicals

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<sup>\*</sup> Technologies within these categories were verified for water security or safe buildings applications.

<sup>\*\*</sup> In 2004, ETV transferred verification of technologies with water security or safe buildings applications to the EPA National Homeland Security Research Center (NHSRC).



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#### Drinking Water Systems Center continued

- Technologies for Reduction of Disinfection By-Products
- Ultraviolet (UV), Ozone and Alternative Inactivation, Disinfection, and Oxidation Technologies
- Whole Building and Mobile Treatment Systems for Reduction of Microbiological and Chemical Agents

#### **Greenhouse Gas Technology Center**

- Advanced Energy
- Green Buildings/Energy Efficient
- Greenhouse Gas Monitoring and Others
- Oil and Gas Industry
- Transportation

#### **Water Quality Protection Center**

- Animal Waste Treatment Solids Separation
- Ballast Water Treatment Technologies
- Chemically Enhanced High-Rate Solids Separation
- Decentralized Wastewater Treatment Technologies
- Decontamination Wastewater Treatment Technologies\*
- Flow Meters
- High-Rate Disinfection Induction Mixers
- High-Rate Disinfection Ultraviolet (UV)
  Disenfection
- In-Drain Treatment Technologies
- Infrastruction Rehabilitation Technologies
- Mercury Amalgam Separation
- Residential Nutrient Reduction
- Storm Water Source-Area Treatment Devices
- Ultraviolet (UV) Disinfection Secondary Effluent/ Wastewater Reuse
- Urban Runoff Models
- Vortex High-Rate Solids Separation

#### Environmental and Sustainable Technology Evaluations (ESTE)—Fuel Characteristics and Emissions from Biomass-Fired Boilers

- Biomass Co-Fired Boilers
- Mold-Resistant Building Materials
- Qualitative Spot Test Kits for Lead in Paint

## Pollution Prevention (P2) Coatings and Coating Equipment Pilot (ended 2007)

- High Transfer-Efficiency Paint Spray Guns
- High-Volume Low-Pressure Spray Guns
- Innovative Liquid Coatings
- Laser Targeted Paint Application
- Powder Coating Technologies
- Process Technologies
- Ultraviolet (UV)-Curable Coatings

### Building Decontamination Technology Center (transferred to NHSRC 2004\*\*)

- Chlorine Dioxide Decontamination Technology\*
- Hydrogen Peroxide Decontamination Technology\*
- Paraformaldehyde Decontamination Technology\*

#### Safe Buildings Monitoring and Detection Technology Effort (transferred to NHSRC 2004\*\*)

- Ion Mobility Spectrometers\*
- Surface Acoustic Wave Detectors\*

#### Safe Buildings Air Filtration and Cleaning Technology Effort (transferred to NHSRC 2004\*\*)

Ventilation Media Air Filters\*

## Pollution Prevention (P2) Metal Finishing Pilot (ended 2003)

- Aqueous Cleaner Maintenance Solution
- Chromate Conversion Coating Solution Maintenance
- Metal Finishing Energy Conservation
- Wastewater Treatment and Sludge Reduction
- Water Use Reduction/Recycling

## Pollution Prevention (P2), Recycling, and Waste Treatment Pilot (ended 2002)

- Aerosol Can Recycling Systems
- Aqueous Circuit Board Cleaners
- Computerized Ion Exchange Regeneration Processes
- Lithium Metatungstate Mineral Assays
- Rechargeable Alkaline Batteries
- Vegetable Oil Transformer Fluids

#### **EvTEC Pilot (ended 2001)**

- Erosion Control Technologies
- Wastewater Treatment Technologies

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