

EPA/NHSRC Research to Support Emergency Response Activities in the Agricultural (Ag) Sector

Paul Lemieux, Jon Kaye

US EPA

National Homeland Security Research Center

Decontamination and Consequence Management Division

EPA/NHSRC Role in Ag Response

- Support disinfection and disposal decision makers with accurate technical information
 - Provide USDA, states, and EPA/OSW with information regarding environmental impacts of disposal technologies
 - Provide EPA/OPPTS with information to support sterilant registration and crisis exemption activities
 - Provide guidance to waste disposal industry to minimize long term environmental impacts and maximize worker safety

Workgroup Participation

- Foreign Animal Disease Threat Subcommittee (OSTP / NSTC inter-agency group)
- EPA/OSWER Avian Influenza Technical Working Group
- FMD Dairy Research Workgroup
- Contaminated Food Disposal Workgroup

Ag Decon R&D Program

- Detailed literature search on AI persistence in environmental media
- Systematic studies on persistence of low and high pathogenic AI (H5N1 virus) on environmental surfaces
- Decontamination studies of LPAI and HPAI on surfaces using low-cost, widely available, non corrosive, minimal impact decon agents

Disposal R&D Program

- Guidance document development
- Thermal destruction of chem/bio agents bound on matrices
 - Bench-scale
 - Pilot-scale
 - Modeling
 - Sampling/analytical methods for stacks and residues
- Permanency of landfilling
 - Survivability in leachate
 - Transport to landfill gas
- Destruction of spores in autoclaves
- Agricultural residue disposal
 - Collaboration with USDA on guidance document development
 - Handbook on plant and carcass disposal (with TSWG and USDA)
 - Development of transportable gasifier (with TSWG and USDA)
 - Bench-scale studies on animal tissue biomass gasification
 - Development of prion surrogate for use in technology evaluations and demonstrations

DST Demonstration

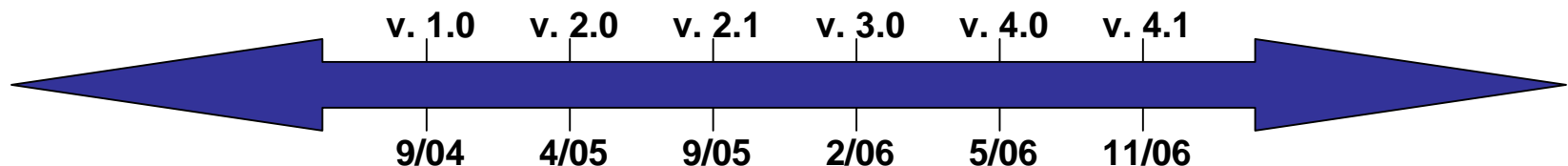
Molly Rodgers

Eastern Research Group, Inc.

(EPA Contractor)

Background

- Project was initiated in September 2003 in response to recommendations made during the May 2003 Disposal Workshop
- Several additional updates to the Tool were released:



Collaborators and Partners

- ERG is Primary Contractor
- EPA
 - OSWER (NDT, ERT)
 - OW
- Other Federal Agencies
 - USDA
- State Agencies
- Waste Industry Groups
- Water Industry Groups
- Professional Organizations

Target Audience

- EPA On-Scene Coordinators (OSCs) & other responders
 - Environmental Response Team
 - National Decontamination Team
- Public Agencies
 - Public Health
 - Environmental Protection
 - Transportation
- Facilities
 - Combustors/incinerators
 - Landfills
 - Building owners/managers
 - Water infrastructure

Uses

- 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

Important Reminders

- The Tool is not an expert system (i.e., the Tool does not tell the user what to do), but rather presents information to consider during the decision-making process
- The Tool assumes the decision to dispose has been made
- The Tool does not present massive quantities of information to the user, but rather tries to distill information while maintaining links to more detailed information when desired

Demonstration - Version 4.1

Potential Future Updates

- More disposal facility databases (e.g., rendering facilities, government-owned facilities)
- Enhancements to the Agricultural Biomass Disposal DST
- Enhancements to the Natural Disaster Debris Disposal DST
- Radiological Dispersion Devices waste disposal
- Integration with other NHTSRC tools

Access to the Tool

<http://www2.ergweb.com/bdrtool/login.asp>

First-time users will need to request a user ID and password – the link above has directions for making the on-line request.

Your request will be approved by Dr. Lemieux and your login ID and initial password will be emailed to you.