PGDP Future Vision Contract

• Goal
  – Increase public participation in determining the ultimate use of the PGDP facility once it is decommissioned

• Objectives
  – Provide technical assistance
  – Facilitate stakeholder meetings to identify preferences
  – Produce PGDP Stakeholder End-State Vision Report

• DOE involvement
  – Funding through DOE from congressional earmark
  – DOE is only one of many stakeholders
    • Project/results are independent of DOE control
  – Final report provided to all stakeholders
Project Team

• Administration
  – Dr. Lindell Ormsbee, UK KRCEE

• Communications Director
  – Ms. Anna Hoover, UK KWRRI

• Community Based Participatory Research
  – Dr. Chike Anyaegbunam, UK College of Communications
  – Mr. Jason Martin, UK College of Communications

• Structured Public Involvement
  – Dr. Ted Grossardt, Dept of Policy and Planning, UK KTC
  – Dr. Keiron Bailey, Dept of Geography Development, Univ. of Arizona

• Technical Support
  – Mr. Steve Hampson, UK CAER
  – Mr. Jim Kipp, UK KWRRI
Recent DOE Administrative History

• DOE Top-to-Bottom Review (2002)
  – Recognition that clean up was taking more time and resources than initially envisioned
  – Accelerated cleanup

  – Directs sites to define risk-based end states that are sustainably protective of human health and the environment.
  – RBES are derived from appropriate land uses and their associated exposure scenarios.
  – Addresses all contaminants of concern.
  – With RBES, cleanup efforts can be focused so they are both cost effective and protective.
  – DOE must still comply with all applicable laws, regulations and agreements.
  – End state vision must be formulated in cooperation with all stakeholders.
  – RBES Vision documents are not decision documents.

• Politics of Clean-Up (2007)
  – Based on a review of previous clean-up experiences
    • Oak Ridge
    • Mound
    • Rocky Flats
DOE P 455.1
“Once Sites develop their risk-based end state vision, they will re-evaluate their cleanup activities and strategic approaches to determine if it is appropriate to change site baseline documents and renegotiate agreements.”
Guiding Principles

- Foster Full Participation
- Follow principles in “Politics of Cleanup”
- Use Community Based Participatory Communication Process
- Use Structured Public Involvement Process
PGDP Future Vision Process

Future Vision Advisory Panel (Representatives Drawn from Stakeholders)

Stakeholder Interviews → Review Refinement
Stakeholder Focus Groups → Review Refinement
Stakeholder Community Meeting (s) → Review Refinement

Data/Technical Support

Community Based Participatory Communication (CBPC)
Structured Public Involvement (SPI)

Case wise Visual Evaluation (CAVE)

UK/KRCEE
Stakeholders

• Office of Governor Steve Beshear
  – Katie Allison, John Esham, Will Coffman

• Kentucky Energy and Environment Cabinet
  – Secretary: Len Peters, Dept Secretary: Hank List
  – Commissioner: Bruce Scott, DWM Director: Tony Hatton

• Cabinet for Health and Family Services
  – Secretary: Janie Miller
  – Public Health Commissioner: William Hacker

• Cabinet on Economic Development
  – Corky Peters, Madisonville office

• Kentucky Department of Fish and Wildlife
  – Anthony Black, Murray office

• West Kentucky Wildlife Management Area
  – Tim Kreher
Stakeholders

- City of Paducah
  - Mayor William Paxton
  - City Manager Jim Zumwalt
- McCracken County
  - Judge Executive Van E. Newberry,
  - Deputy Judge Executive Doug Harnice
- Ballard County
  - Judge Executive Vickie Viniard
- City of Metropolis, IL
  - Mayor Billy McDaniel
- City of Kevil, KY
- West McCracken Water District
- McCracken Joint Sewer Agency
- Purchase District Health Department
- Paducah Housing Authority
  - Ray Henderson
- McCracken County Sheriff
  - John Hayden
- Senator Mitch McConnell
  - Martie Wiles
- Senator Jim Bunning
  - Rachel Nave McCubbin
- Representative Ed Whitfield
  - Janece Everett
- Representative Brent Housman
- Representative Steven Rudy
- Representative Mike Cherry
- Representative Will Course
- Representative Fred Nesler
- Senator Robert Leeper
Stakeholders

- US Department of Energy
  - Reinhard Knerr & Robert ‘Buz’ Smith (Paducah)
  - William Murphie (regional office in Lexington)
- United States Enrichment Corporation
  - Steve Penrod, Georgeann Lookofsky
- Paducah Remediation Services
  - Joe Tarantino
- Citizens Advisory Board
  - Bobby Lee
- US Environmental Protection Agency
  - Turpin Ballard, Remedial Project Manager
  - EPA Region IV Office (Atlanta)
- Agency for Toxic Substances and Disease Registry
- United States Fish and Wildlife Service
  - Anthony Velasco
- Tennessee Valley Authority
Stakeholders

• Purchase Area Development District
  – Jennifer Beck Walker
• Paducah Uranium Plant Asset Utilization Task Force
  – John Anderson
• Greater Paducah Economic Development Council
  – Rex Smith
  – Wayne Sterling
  – George Harvens
• Paducah Area Chamber of Commerce
  – Elaine Spalding, Susan Guess, Glen Denton
• Paducah Tourist and Convention Commission
  – Mary Hammond
• Entre Paducah
  – Terry Reeves
• Ballard County Chamber of Commerce
  – Barbara Jones
• HCSI
  – John Williams
Stakeholders

• Kentucky Resources Council
  – Tom Fitzgerald
• Active Citizens for Truth
  – Ruby English
• Coalition for Health Concerns
  – Corinne Whitehead
• Regional Association of Concerned Environmentalists
• Indigenous Peoples Environmental Network
• Western Kentucky Construction Association
  – Mike Donohoo
• United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied-Industrial and Service Workers International Union, Local 550
  – Rob Irvin
• Security Police and Fire Professionals of America, Local 101
Stakeholders

- Landowners
- Neighborhood Associations
- Residents near the facility
- Community Spokespersons
- Public Schools
- Community College (West KU Tech)
- UK-Paducah Campus
- Extension Office
- Farm Bureau
- Conservation District
- Paducah Arts
- Churches/Religious Organizations
- Service Organizations
- Social Clubs
- General Public

- Paducah Sun
  - Ron Clark
- WKYX-AM/WDDJ-FM
  - Donna Groves
  - Greg Dunker
- WGCF-FM Community Radio
  - Glen Dunkerson
- WPSD (TV)
- WBCL (radio)
- Bristol Broadcasting
  - Jamie Futral
  - Gary Morse
Trigger Scenario Development

Future Vision Advisory Panel/ Citizens Advisory Board

- Review Refinement
- Categories
- Options
- Scenario Matrix
- Images
- Trends
- Uncertainties
- Impacts
- Scenario Fact Sheets

Stakeholder Interviews

- Review Refinement
- Review Refinement
- Review Refinement
<table>
<thead>
<tr>
<th>Future Vision Categories</th>
<th>Scenario 1</th>
<th>Scenario 2</th>
<th>Scenario 3</th>
<th>Scenario 4</th>
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<tbody>
<tr>
<td><strong>Land Use</strong></td>
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<tr>
<td>a. Nuclear Industry</td>
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<td>z. Residential Apartments</td>
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<td><strong>Waste Disposal</strong></td>
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<td>a. On-site</td>
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<td>b. Partial</td>
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<td>c. Off-site</td>
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<td><strong>Groundwater</strong></td>
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<td>a. Water Policy &amp; Active Treatment</td>
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<td>z. Monitoring &amp; Enhanced Inst. Controls</td>
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<td><strong>Surface Water</strong></td>
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<tr>
<td>z. Sedimentation Basins/Removal</td>
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</tbody>
</table>
Example Scenario Fact Sheet

Impacts:
- Health
- Economic
- Environmental

Trends:
- Energy Needs
- Economic
- Environmental

Uncertainties:
- Funding
- Regulations
- Demographics

Impacts:
- Health
- Economic
- Environmental
Community Based Participatory Communication

• A process of raising awareness and understanding about social reality, problems and solutions, rather than persuasion for short-term behavioral changes that are only sustainable with continuous campaigns.

• Two-way relationships in which stakeholders enter into conversations and form partnerships with internal and external communities to yield mutually beneficial outcomes.
  – Favors decentralization, democracy, people involvement, dialogue, bottom-up and horizontal communication.
  – Uses both traditional and modern forms of communication and organization.
  – Protects tradition and cultural values, while facilitating the integration of new elements.
  – Creates an environment that empowers individuals and groups and gives them the freedom to voice their perceptions of reality and to act on these realities.
Application of Community Based Participatory Communication to Future Vision Process

1) Focus group divides into teams
2) Each team provides trigger scenario fact sheets
3) Each team identifies key issues and/or additional data needs for their TS
4) Each team presents their results to the total stakeholder group

Focus Group:
1) Critiques scenarios
2) Identifies additional data needs
Structured Public Involvement

- Inclusiveness
  - Hundreds of people can participate
- Fairness
  - Everyone gets equal voice
- Quality
  - People can understand the issues
- Respect
  - Everyone’s time is valued
- Verification
  - Everyone sees the results in real time
- Accountability
  - Results are recorded, modeled, and analyzed
- Relevance
  - Results are incorporated into the planning process
Structured Public Involvement

Future Vision
Scenarios
Fact Sheets

Future State
Visualizations

Discussion

Future State
Visualizations

Vote on Scenarios
CAsewise Visual Evaluation (CAVE)

Fuzzy Knowledge Builder

Optimal Solution

Sampled Scenarios  Modeled Scenarios  Selected Scenario(s)

5 3 3 3 3
5 3 1 1 3
5 7 5 1 3
8 7 5 3 3
9 8 5 3 3

x axis, DEN = Density
y axis, HT = Height
z axis, PREF = Preference
Technology/Methodology Integration

- Community Based Participatory Communication (CBPC)
  - Dr. Chike Anyaegbunam
  - Approach has been applied around the world
  - Most recently used to address farm tractor safety
- Structured Public Involvement (SPI)
  - Dr. Ted Grossardt
  - Key pad technology
  - GIS/visualization technology
  - Approach has been applied on several projects in KY
- Preference Modeling using Casewise Visualization Evaluation (CAVE)
  - Dr. Keiron Bailey
  - Uses artificial intelligence modeling techniques
  - Approach has been applied on several projects in KY
Future Vision TIMELINE

- Stakeholder Interviews
  - 4/09 - 8/09

- Stakeholder Focus Groups
  - 9/09 - 12/09

- SPI
  - 1/10 - 5/10

- Stakeholder Community Meeting(s)
  - 1/10 - 5/10

- Develop Final Report
  - 6/10 - 8/10

Community End State Vision
Feedback

• Overall process
  – Suggestions for improvement?

• Stakeholders
  – Are we missing someone?

• Issues/Concerns
  – Are there some critical issues we need to be aware of?
    • Waste disposition
      – e.g. onsite vs offsite

• Opportunities/Challenges
  – Are there opportunities we need to know about?
    • Nuclear industry
      – e.g. GE

• Critical information
  – Is there some key information we need to obtain?
    • e.g. economic impact of PGDP to region