



The Kentucky Research Consortium for Energy & the Environment

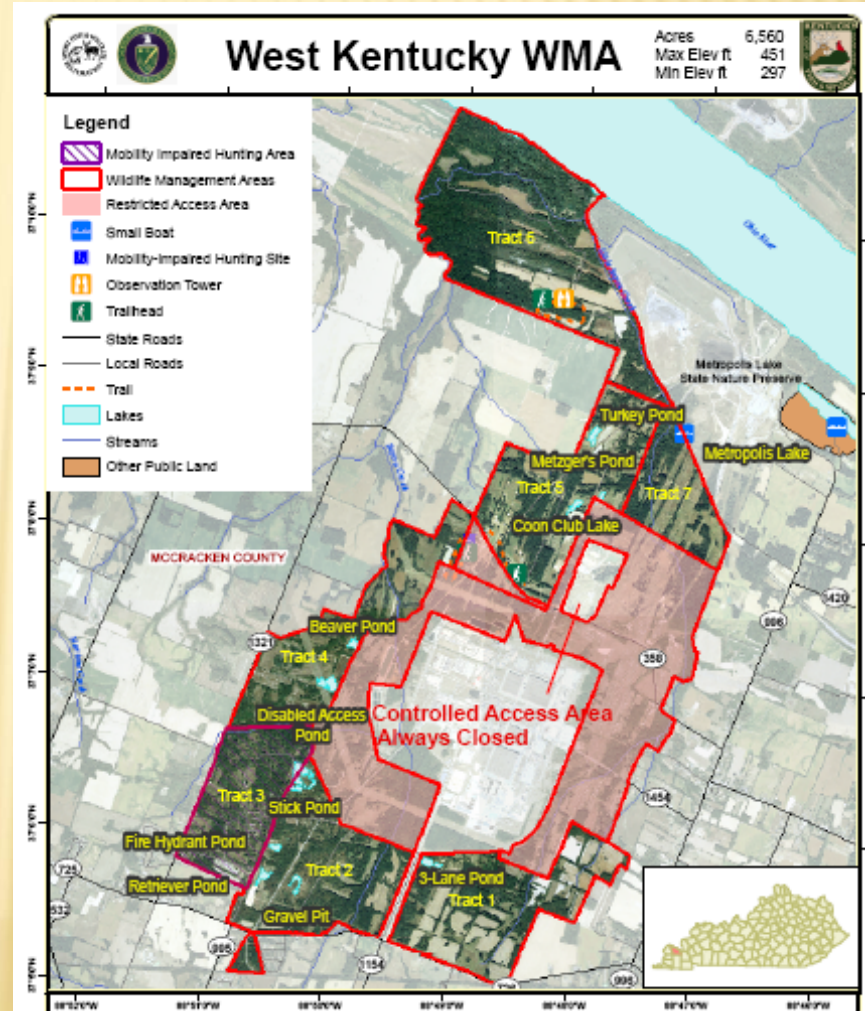
TOWARD A CONSENSUAL END-USE FOR THE PADUCAH GASEOUS DIFFUSION PLANT

PGDP

- Only operating US uranium enrichment facility
- Online since 1952
- Approximately 2,200 employees (USEC and DOE)
- 161 buildings on 3,425 acres
- 19 miles of roads, 9 miles of railroad, 5 miles of fencing
- 30,000 cylinders of depleted uranium hexafluoride
- **200+ solid-waste management units being addressed under Federal and State Regulations**
- Utilizes 26 million gallons of water per day

LOCATION

- McCracken County, KY, near the Ballard County line; surrounded by West Kentucky Wildlife Management Area



KRCEE

- Established in 2003 through federal earmark
- Administered by University of Kentucky
- Takes lead role in demonstration and application of new technologies for environmental clean-up activities at PGDP
- Especially concerned with TCE monitoring and clean-up
- More than 20 projects to date, directed by faculty from UK, U of L, and Murray State University
 - Metal recovery
 - Seismic
 - **Geophysical**
 - Groundwater
 - Surface water
 - Ecological
 - Technology development
 - Land-Use
 - Superfund Basic Research Program outreach

END USE PROJECT

“KRCEE shall integrate public, regulatory, and technical community visions and produce a publicly approved End State Report for the Paducah site. In development of this End State Report, KRCEE shall facilitate meetings that incorporate public, stakeholder, and technical concerns, including approaches and information in "Politics of Cleanup" prepared by Energy Community Alliance, Inc. (2007) and support report production. This task shall include several public meetings and workshops.”

STAKEHOLDERS

- Public
 - Citizens of McCracken and Ballard Counties
 - Advisory, advocacy, business groups
- Department of Energy
- Site contractors
- Facility Workers
- Federal Regulatory Agencies
- State Regulatory Agencies
- Technical Community

PUBLIC: MCCRACKEN COUNTY

- Population: 65,514
- Education Level
 - Less than a high school diploma: 19.7%
 - High school diploma: 33.3%
 - Some college, no degree: 21.9%
 - Associate's degree: 6.9%
 - Bachelor's degree or higher: 18.1%
- Unemployment Rate: 5.4%

PUBLIC: BALLARD COUNTY

- Population: 8,286
- Education Level
 - Less than a high school diploma: 23.7%
 - High school diploma: 40.4%
 - Some college, no degree: 19.9%
 - Associate's degree: 5.4%
 - Bachelor's degree or higher: 10.6%
- Unemployment Rate: 6.2%

PUBLIC: GROUPS

- Citizens Advisory Board (CAB)
 - Appointed by DOE
- ACT
- Paducah Area Chamber of Commerce
- Greater Paducah Economic Development Council
- Others to be identified

FEDERAL REGULATORY AGENCIES

- Department of Energy (DOE)
- Environmental Protection Agency (EPA)
- Agency for Toxic Substances and Disease Registry (ATSDR)

STATE REGULATORY AGENCIES

- Kentucky Energy and Environment Cabinet
 - Division of Waste Management (KDWM)
 - Superfund Branch
- Cabinet for Health and Family Services (CHFS)
 - Radiation Control Branch
- Kentucky Cabinet for Economic Development

ATSDR SURVEY OF COMMUNITY CONCERNS

Table B-1. Community concerns

Health Concerns

Cancer				
Death = 9	Musculoskeletal = 2	Lymphoreticular = 2	Unspecified = 39	
Respiratory = 1	Hepatic = 0	Neurological = 3	Other cancer = 1	
Cardiovascular = 0	Renal/urinary = 0	Developmental = 0	Breast = 4	
Gastrointestinal = 1	Dermal = 0	Reproductive = 0	Bladder = 0	
Hemopoietic = 0	Ocular = 0	Endocrine = 0		
Non-Cancer				
Death = 2	Musculoskeletal = 0	Immunological = 0	Physical = 0	Genotoxic = 0
Respiratory = 3	Hepatic = 0	Neurological = 1	Low birth wt. = 0	Other = 3
Cardiovascular = 4	Renal/urinary = 0	Learning = 1	Reproductive = 0	Metabol. disorder = 2
Gastrointestinal = 1	Dermal = 0	Behavioral = 0	Miscarriage = 0	Endocrine = 0
Hemopoietic = 0	Ocular = 0	Developmental = 0	Infertility = 0	Lymphoreticular = 0
Non-Distinct				
Headaches = 4	Aches = 2	Sinus = 3	Body weight = 0	
Dizziness = 1	Pain = 3	Eye irritation = 0	Other = 5	
Loss of appetite = 0	Nausea = 3	Fatigue = 2		

ATSDR CONTINUED

Exposure Concerns

Media

Air = 39

Surface water = 20

Biota = 20

Soil/sediment = 17

Groundwater = 39

Waste materials = 3

Other Issues

Unspecified other = 12

Monitoring/sampling = 5

Cleanup/treatment = 4

Future land use = 1

Transp. of wastes = 1

Waste storage = 4

Emergency response = 0

Site access = 0

Procedural Concerns

Issues

Lack of trust = 18

Unreliable data = 8

No response/followup = 6

Don't know what they are doing = 1

Don't listen = 7

Information gap = 9

Politics = 9

Others = 10

Agency

DOE = 21

Contractors = 22

State health dept. = 0

Other = 2

ATSDR = 4

EPA = 3

Local health dept. = 1

http://www.atsdr.cdc.gov/HAC/PHA/paducah2/pgd_p10.html

SAMPLE CITIZEN COMMENTS FROM ATSDR

- I now have cancer, lymphoma. I would like to know if the cause is from this plant? I'm very concerned about the high rate of cancer in this area (Metropolis Lake Road). My husband died. He worked for Union Carbide for several years. In the past three years three other close neighbors died of cancer also.
- I have lived 43 of my 45 years within five miles of the plant. Also, I have worked at the plant. I would be interested in the results of the possible cancer cluster in the Bradford Road area as my son's dad lived there and died of cancer, and my step-father, who moved there years ago, currently has cancer.
- My wife has high blood pressure and has mini strokes since 11/94. I developed a heart problem. Our medical bills have run into the hundreds of thousands of dollars, so you can't tell me I haven't been exposed.
- The air we breath is absolutely unbelievable. The odors and pollution are really bad.
- We are concerned about toxic waste being dumped in the Little Bayou Creek and being put in the landfill. When we complained about the smell, they said it was chicken manure and in another case they said the smell was caused by bovine manure.
- We are on a fixed income. The Water District does not need the exorbitant amount proposed by the Commonwealth of Kentucky Public Health Service Commission. Please don't impose unnecessary expense on our water district. After all--you should be working to "protect" us "not punish"!
- We have no say in what is buried in the landfill they are building--this is not right.
- Cattle look older than they should. In 1994, a calf was born dead with a deformed jaw. Coffee Animal Clinic in LaCenter, Kentucky examined the calf; then the Plant took the calf. Presently has 40 head of cattle including calves. In 60 years, there was only the one deformity.

ADDITIONAL INFORMATION

➤ Paducah Gaseous Diffusion Plant:

- USEC: http://www.usec.com/gaseousdiffusion_pad_overview.htm
- DOE: <http://www.oakridge.doe.gov/factsheets/paducgdp.htm>
- ATSDR: http://www.atsdr.cdc.gov/HAC/PHA/paducah2/pgd_toc.html
- Citizens Advisory Board (CAB): <http://www.pgdpcab.org/>

➤ KRCEE

- www.uky.edu/krcee

➤ Politics of Clean-Up

- <http://www.energyca.org/PDF/ECACleanupforPosting.pdf>