



Paducah Gaseous Diffusion Plant
Citizens Advisory Board

July 15, 2010

Agenda for the July Board Meeting

Chair

Judy Clayton

Vice-Chair

Ralph Young

Board Members

John Anderson

Robert Coleman

David M. Franklin

Jonathan Hines

Shirley Lanier

Maggie Morgan

Dianne O'Brien

Elton Priddy

Ronnie Rathman

Alex Roman

Mark Sullivan

Don Swearingen

May Louise Zumwalt

Board Liaisons

Reinhard Knerr

DOE DDFO

Buz Smith

DOE Federal Coordinator

Ed Winner

Division of Waste

Management

Turpin Ballard

Environmental Protection

Agency

Mike Hardin

Fish and Wildlife Resources

Stephanie Brock

Radiation Health Branch

Support Services

EHI Consultants, Inc.

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Paducah, KY 42001

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info@pgdpcab.org

6:00

Call to order, introductions

Review of agenda

DDFO's Comments

-- 20 minutes

Federal Coordinator Comments

-- 5 minutes

Liaison Comments

-- 5 minutes

Administrative Issues

- Operational Protocols—Vote
 - CAB Sponsored Participation in Leadership Paducah
 - Recruiting Members
- Operational Protocol —First Reading
 - Student Liaison
Maggie Morgan, Executive Committee
- Recommendation 10-05, Further Path to Increase Public Education by Holding a Public Meeting at Heath High School Concerning Waste Disposal Options
Robert Coleman, Community Outreach
- Recommendation 10-06, Potential CERCLA Cell Siting Criteria
Mark Sullivan, Waste D&D
- Recommendation 10-07 to 10-10, Historic Preservation
Ralph Young, Executive Committee
 - 10-07, PGDP Museum
 - 10-08, Oral Histories Program
 - 10-09, Historic Document by Fall, 2011
 - 10-10, Artifacts and Memorabilia
- Top Three Issues—2010 Fall Chairs Meeting

Presentations

-- 15 minutes

Subcommittee Chair Comments

-- 10 minutes

Public Comments

-- 15 minutes

Final Comments

-- 5 minutes

Adjourn



PADUCAH GASEOUS DIFFUSION PLANT CITIZENS ADVISORY BOARD

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Paducah Gaseous Diffusion Plant Citizens Advisory Board Meeting Minutes July 15, 2010

The Citizens Advisory Board (CAB) met at the Environmental Information Center (EIC) in Paducah, Kentucky on July 15, 2010, at 6 p.m.

Board members present: Ralph Young; Vice-Chair; May Louise Zumwalt; Maggie Morgan; John Anderson; Shirley Lanier; Mark Sullivan; Robert Coleman; Dianne O'Brien; Elton Priddy.

Board members absent: Judy Clayton, Chair; David Franklin; Ronnie Rathman; Don Swearingen; Jonathan Hines; Alex Roman.

Board Liaisons and related regulatory agency employees: Stephanie Brock, Kentucky Radiation Health Branch (KRHB); Tim Kreher, Kentucky Department of Fish and Wildlife; Nathan Garner, KRHB; Gaye Brewer substituting for Ed Winner, Kentucky Department of Waste Management (KDWM).

Deputy Designated Federal Official: Jennifer Woodard, Department of Energy, substituting for Reinhard Knerr

DOE Federal Coordinator: Buz Smith

Facilitator: Jeff Burrright, Sapere Consulting

U.S. Department of Energy (DOE) related employees: Bruce Gardner, Paducah Remediation Services (PRS); Scott Smith, Swift & Staley; Rich Bonczek; Department of Energy (DOE); Jim Erickson, LATA Kentucky; Dave Dollins, DOE; Suzanne Clinton, EHI Consultants (EHI); Eric Roberts, EHI; Ed Holmes, EHI; Yvette Cantrell, Remediation Services, Inc. (RSI); Loretta Aversa, DOE

Public: Mike Kemp, Murray State University; Ben Peterson, City of Paducah

Introductions

Burrright welcomed everyone and allowed for round-table introductions. **Burrright** reviewed the agenda, the scope of the CAB and stated fifteen minutes are allotted for public comment and that members of the public must sign in to speak.

Deputy Designated Federal Official Comments

Woodard presented project updates to the Board. All presentations are available on the CAB Website at www.pgpdcab.org.

DOE Federal Coordinator Comments

Smith stated he had no comments at this time.

Liaison Comments

Brewer reported a regulator meeting was not held as normal due to the absence of Reinhard Knerr. **Brock, Brewer** and **Kreher** declined comment.

Administrative Issues

- **Operational Protocols--Vote**

- **CAB Sponsored Participation in Leadership Paducah**
- **Recruiting Members**

Burright noted only nine CAB members present which falls one member short of the required two-thirds majority (10 members) required per the by-laws to ratify an operational protocol. **Burright** suggested the matter be tabled.

Sullivan commented that another CAB member is expected and that the Board might vote on the issue if and when that member arrives. This matter was tabled until a later meeting when the required two-thirds members are present.

- **Operational Protocol—First Reading**

- **CAB Student Liaison**

Morgan reported the CAB had learned of a student member program at the Spring Chairs meeting in Oak Ridge. The CAB subsequently developed its own protocol to begin a local program for a “student liaison”. Requirements include that the student be a college junior, is not a voting member at the Board level, but can vote at the subcommittee level. Students will be required to apply in the fall of their junior year and serve through the fall of their senior year. **Morgan** continued saying the program will be an excellent opportunity for students to both serve the CAB and learn about environmental remediation issues in general. Students can be recruited from the University of Kentucky Engineering School or Murray State University. Students will be required to submit a request to serve outlining their course of study along with a letter of endorsement from a professor.

- Recommendation 10-05, Further Path to Increase Public Education by Holding a Public Meeting at Heath High School Concerning Waste Disposal Options.

- **Coleman**, Chair of the Community Outreach Committee presented and recommended approval of Recommendation 10-05 which reads (in part):

Recommendation:

The Citizens Advisory Board recommends that DOE continue their public education effort by soon conducting the planned public meeting at Heath High School. Such a meeting would ensure that those most affected by a potential CERCLA cell have

access to information and materials with which to educate themselves about the impacts associated with construction of such a cell in a venue that is comfortable and proximate to those living nearest the PGDP site. Further, the CAB recommends:

- 1. That informational fliers be mailed to those living in homes in the immediate neighborhood of the PGDP site, so those closest to the area are certain to be informed of the date and time of the public meeting.*
- 2. That attendees be given the opportunity to voice their opinion as to whether they are in favor of a cell and, if so, at which of the four possible locations.*
- 3. That the public comments received at the Heath High School meeting be compiled and communicated to the CAB.*

The CAB would like to commend the Department of Energy on their work to educate the public about waste disposal options at the PGDP site up to now and believes it is of vital importance to the community that these efforts continue.

Young stated he thought it was important to be clear that the CAB neither endorses nor opposes any CERCLA cell, but rather at this time and with this recommendation endorses the process of gathering community input and sharing information with the community on the issue.

Coleman moved the board approve Recommendation 10-05, “Futher Path to Increase Public Education by Holding a Public Meeting at Heath High School Concerning Waste Disposal Options”. Young seconded the motion.

APPROVED

(9-0)

- Recommendation 10-06, Potential CERCLA Cell Siting Criteria, Mark Sullivan, Waste D&D. **Sullivan** reported approximately eleven potential CERCLA cell sites have been identified as possible locations for a potential CERCLA cell. While site 3A (located at the main plant entrance) is one that has been looked at as desirable from a technical standpoint, the CAB is recommending the issue be looked at from standpoints other than technical, including from the perspective of the aesthetic impact on the surrounding neighborhood. The Recommendation reads (in part):

The CAB fully supports studies and investigations on waste disposal options, as required by the CERCLA Regulation, but does not support or oppose the siting and construction of a CERCLA cell at the PGDP at this time. In order to adequately address stakeholder concerns and issues during the siting study of a potential CERCLA cell, the PGDP CAB recommends that DOE give appropriate weighting and consideration to “non-technical” factors such as, but not limited to:

- 1. The potential site’s impact on the future economic viability of that site.*
- 2. The potential site’s impact on the local environment, minimizing the disruption of “Greenfield” areas.*

3. *The potential site's impact on the aesthetics of the site and the future landscape of the reservation.*
4. *The potential site's impact on plant neighborhoods and the emotional reactions of the affected communities.*

Morgan recommended a fifth point be added asking that DOE quantify the cost of recreating the technical benefit of Porter's Creek clay—an existing feature at site 3A that makes it technically desirable as a potential CERCLA site—at another location. **Morgan** recommended a point be added to read,

“Quantify the monetary value of the protective factors offered by site 3A and how much it would cost to reproduce that level of protectiveness at a different site.”

Woodard explained that the fact that Porter's Creek clay naturally exists necessarily makes it a more effective barrier than a man-made material or liner.

O'Brien asked if a plan for what would happen in case of failure [of a CERCLA cell] should be included in the recommendation? **Young** responded that he is confident that risk assessment and failure plans will be a part of the regulation criteria should a CERCLA cell be decided upon. **Zumwalt** agreed that requirements for failure plans are part of the regulations in the event a cell is constructed. **Anderson** agreed that CERCLA regulations would require back-up and failure plans. **Woodard** explained that risk assessment and failure analyses are integrated into the design process.

Sullivan stated he thought Morgan's point was critical, but may be somewhat premature as it relates to the recommendation currently under consideration. **Sullivan** recommended the CAB proceed with the recommendation reminding the CAB they can make recommendations later relating to risk and failure, as it relates to any one particular site if one is recommended. **Kreher** recommended the CAB review documents relating to a potential CERCLA cell that were developed ten years ago and that asked and answered many of the same questions posed here.

Burright asked for a show of hands as to all in favor of adding #5 to the recommendation [as worded above]. The motion to add failed.

Burright asked for a show of hands as to all in favor of approving Recommendation 10-06, Potential CERCLA Cell Siting Criteria.

UNANIMOUSLY APPROVED
(9-0)

Sullivan reiterated that he feels Morgan's point is very valid, but may be somewhat premature as it relates to the current recommendation. **Young** remarked that a public meeting relating to CERCLA cell is to be held in August. **Young** added that there are two factors to these type decisions, the technical side and the emotional side and they often to not necessarily compliment each other.

- Recommendations 10-07 through 10-10, Historic Preservation, Ralph Young, Executive Committee:
 - 10-07, PGDP Museum
 - 10-08, Oral Histories Program
 - 10-09, Historic Document by Fall, 2011
 - 10-10, Artifacts and Memorabilia

Young explained that these recommendations relating to historic preservation began as one large document and have now been broken down in the four before the CAB. There is concern that with the changing focus on the future use of the site, the community could lose touch with the historic significance of the site. At the Chairs meeting in Oak Ridge, historic preservation was discussed and members of the executive committee have become passionate about preserving the history as well as telling the story of the PGDP site. The first recommendation under consideration, 10-07 reads (in part):

In order that both historic information and artifacts at the PGDP site be preserved for future generations, the Citizens Advisory Board recommends:

That DOE begin plans for a museum or other center in which artifacts and memorabilia from the PGDP Plant can be displayed and preserved. In this way, the general public, many of whom could be former employees or their family members, may have the benefit of a commemorative structure honoring the history of the PDGP and its workers.

Burright polled the Board as to all in favor of approving Recommendation 10-07, PGDP Museum.

UNANIMOUSLY APPROVED
(9-0)

Young presented the second recommendation relating to historic preservation, 10-08, Oral Histories Program. It reads in part:

In order that historic information at the PGDP site be preserved for future generations, the Citizens Advisory Board recommends:

That DOE initiate a comprehensive Oral Histories Program. Though the mission of the plant changed with the end of the Cold War to producing enriched uranium for use in domestic and foreign commercial power reactors, the stories of the people who made it possible for Paducah to contribute to the security of our nation have not. The stories of many of these individuals are important elements of national history to be recorded and preserved. The stories of the families and communities affected by the PGDP provide valuable insight into the impact of the site on the surrounding area. Workers and community members from the early years of the plant are now aged. It is urgent that a program be initiated in order to gather, record, and archive their stories before it is too late.

Burright polled the Board as to all in favor of approving Recommendation 10-08, Oral Histories Program.

UNANIMOUSLY APPROVED

(9-0)

Young presented the third recommendation relating to historic preservation, 10-09, Historic Document by Fall, 2011. It reads in part:

In order that both historic information and artifacts at the PGDP site be preserved for future generations, the Citizens Advisory Board recommends:

That DOE assist the CAB in producing and publishing a document which adequately depicts the history of the PGDP from incipient plans to today. Information and pictures which would be needed to develop and publish such a document reside with the Department of Energy. We understand that some of the material which the DOE possesses is classified in nature; the CAB would only ask for items which can be free-released. It is the CAB's desire to have this document ready for distribution to the public and available for the information packets at the Fall Chairs Meeting held in Paducah in 2011.

Burright polled the Board as to all in favor of approving Recommendation 10-09, Historic Document by Fall, 2011.

UNANIMOUSLY APPROVED

(9-0)

Young presented the fourth recommendation relating to historic preservation, 10-10, Artifacts and Memorabilia. It reads in part:

In order that both historic information and artifacts at the PGDP site be preserved for future generations, the Citizens Advisory Board recommends:

That DOE or its representative identify and preserve artifacts and memorabilia which are of historical significance or interest to the PGDP site. In light of the contribution this community made to the Nation through its efforts at the Paducah Gaseous Diffusion Plant site, it is essential that artifacts and memorabilia be secured, preserved, and displayed, so the community can have a properly documented and preserved historic record of the PGDP site for current and future generations. The CAB recognizes that the DOE and the Commonwealth of Kentucky have already entered into an agreement to preserve only by pictorial methods the history of the site, but we recommend that DOE go beyond that agreement and preserve tangible objects.

Burright polled the Board as to all in favor of approving Recommendation 10-10, Artifacts and Memorabilia.

UNANIMOUSLY APPROVED

(9-0)

- Top Three Issues, Fall 2010 Chairs Meeting

Young explained that at all Chairs Meetings SSABs across the country are required to submit their “top three issues” as well as an accomplishment. Young stated he had

developed three as starting point, they are: CERCLA cell, burial grounds, and future use. **Young** suggested Eco-Fair as the accomplishment. **Young** recommended the final decision be remanded to the Executive Committee for final development and approval. **Young** further reported he had made application for the CAB to the Kentucky Excel program as a result of the CAB's involvement with the eco-fair. **Zumwalt** suggested the CAB consider adding historic preservation as a top three issue in light of the four recommendation just passed. It was agreed that the Executive Committee would finalize the top three issues.

- **Subcommittee Chair Comments**

Community Outreach: **Coleman** stated that members of the Community Outreach Subcommittee have undergone training with the Speaker's Bureau Presentation at a session held with Loretta Avena. Members will soon begin brainstorming possible community organizations to present to. Another class will be held that will focus on the specific presentation.

Groundwater: **Morgan** reported the subcommittee had talked about the Dissolved Phase Plume and the new data that has been collected with the monitoring wells. **Morgan** reported it was interesting to see the projections for the plumes based on the data.

Waste D&D: **Sullivan** reported the focus has been on a potential CERCLA cell which tonight's recommendation addressed.

Future Use: **Young** reported that based on KRCEE's (Kentucky Research Consortium for Energy and the Environment) assessments, they are finding that many members of the public are unaware of the history and current status of the PGDP site. As a result, KRCEE is working to develop some educational materials to take out into the community to address this issue.

- **Public Comments**

Burright checked the public comment sign-in sheet. No attendees signed up to make public comments.

The meeting adjourned at 7:20 p.m.

Solving Cleanup Challenges Through Risk Reduction

Remediation Project Update

DRAFT 070910 Presentation for Paducah CAB

July 15, 2010



EM Environmental Management

safety ♦ performance ♦ cleanup ♦ closure

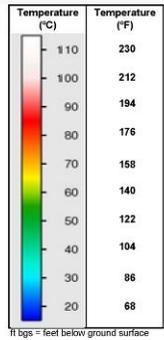


C-400 TCE Source Removal



- 400 gal of TCE removed in more than 60 days of heating
- Target temperature for TCE extraction reached in less than 60 days

C-400 Heating Progress – Southwest Area

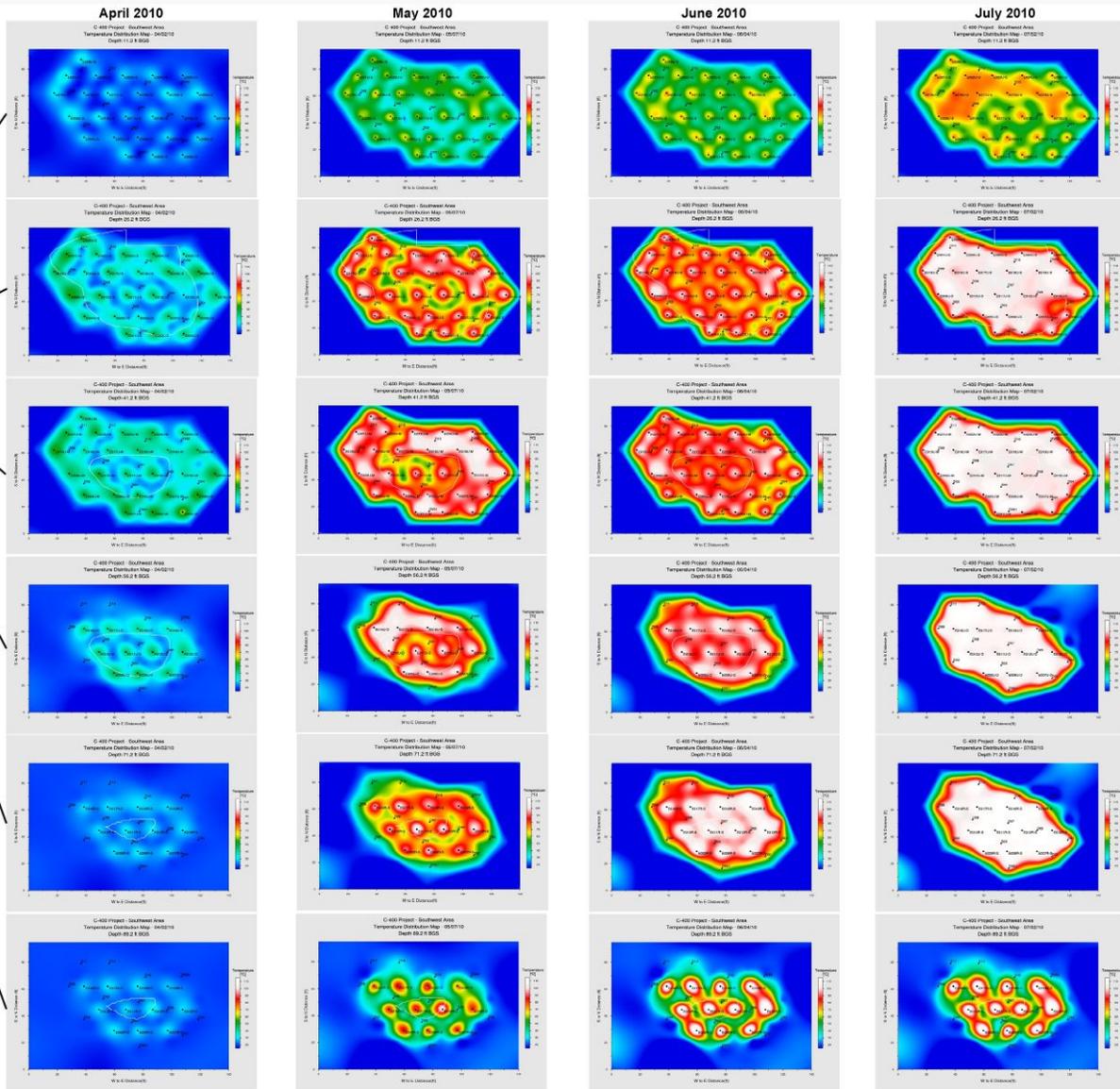


1 ft bgs = feet below ground surface

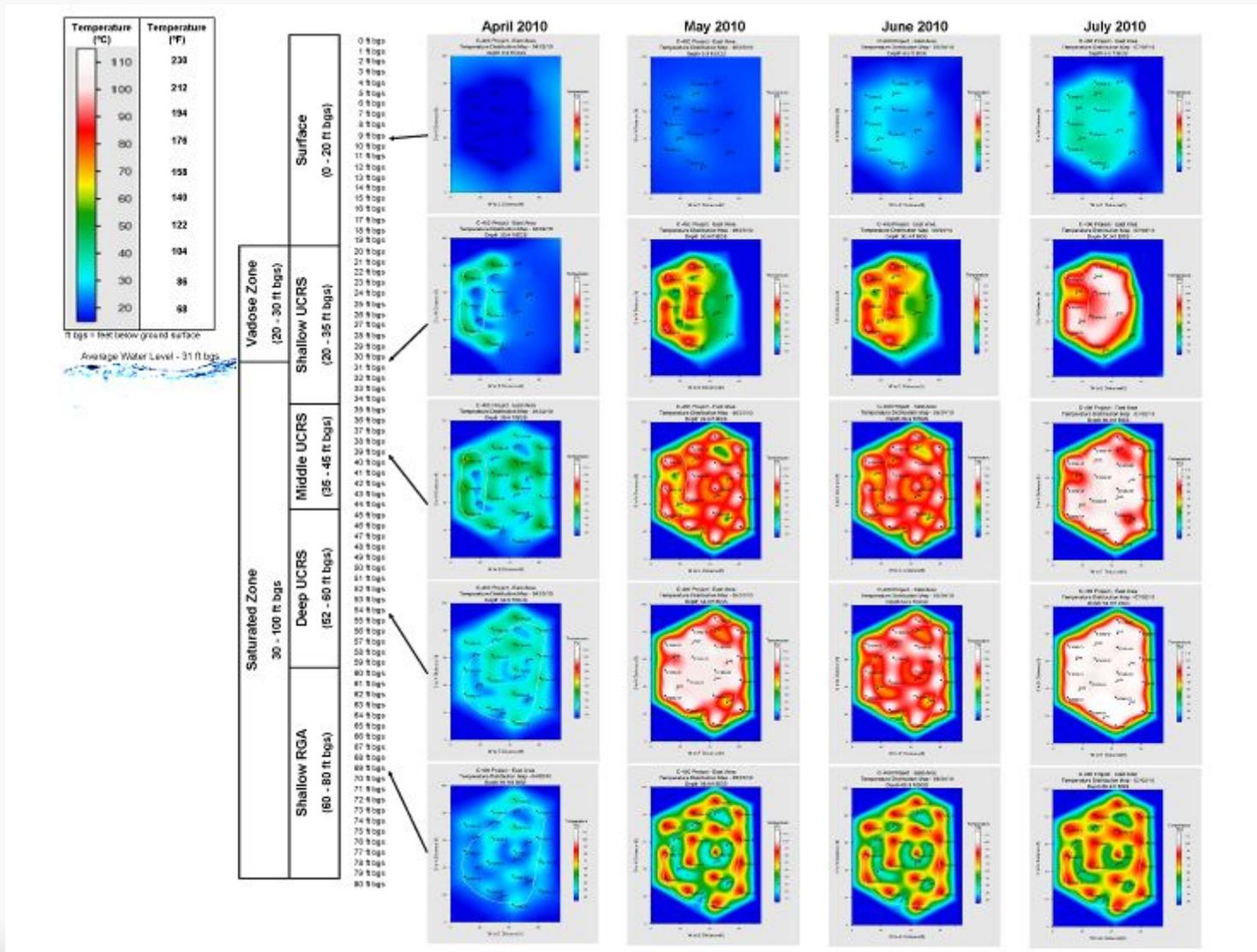


Vadose Zone	Surface (0 - 20 ft bgs)	0 ft bgs	1 ft bgs	2 ft bgs	3 ft bgs	4 ft bgs	5 ft bgs	6 ft bgs	7 ft bgs	8 ft bgs	9 ft bgs	10 ft bgs	11 ft bgs	12 ft bgs	13 ft bgs	14 ft bgs	15 ft bgs	16 ft bgs	17 ft bgs	18 ft bgs	19 ft bgs	20 ft bgs	21 ft bgs	22 ft bgs	23 ft bgs	24 ft bgs	25 ft bgs	26 ft bgs	27 ft bgs	28 ft bgs	29 ft bgs	30 ft bgs	31 ft bgs	32 ft bgs	33 ft bgs	34 ft bgs	35 ft bgs	36 ft bgs	37 ft bgs	38 ft bgs	39 ft bgs	40 ft bgs	41 ft bgs	42 ft bgs	43 ft bgs	44 ft bgs	45 ft bgs	46 ft bgs	47 ft bgs	48 ft bgs	49 ft bgs	50 ft bgs	51 ft bgs	52 ft bgs	53 ft bgs	54 ft bgs	55 ft bgs	56 ft bgs	57 ft bgs	58 ft bgs	59 ft bgs	60 ft bgs	61 ft bgs	62 ft bgs	63 ft bgs	64 ft bgs	65 ft bgs	66 ft bgs	67 ft bgs	68 ft bgs	69 ft bgs	70 ft bgs	71 ft bgs	72 ft bgs	73 ft bgs	74 ft bgs	75 ft bgs	76 ft bgs	77 ft bgs	78 ft bgs	79 ft bgs	80 ft bgs	81 ft bgs	82 ft bgs	83 ft bgs	84 ft bgs	85 ft bgs	86 ft bgs	87 ft bgs	88 ft bgs	89 ft bgs	90 ft bgs	91 ft bgs	92 ft bgs	93 ft bgs	94 ft bgs	95 ft bgs	96 ft bgs	97 ft bgs	98 ft bgs	99 ft bgs	100 ft bgs	101 ft bgs	102 ft bgs	103 ft bgs
	Saturated Zone	Shallow UCRS (20 - 35 ft bgs)	35 ft bgs	36 ft bgs	37 ft bgs	38 ft bgs	39 ft bgs	40 ft bgs	41 ft bgs	42 ft bgs	43 ft bgs	44 ft bgs	45 ft bgs	46 ft bgs	47 ft bgs	48 ft bgs	49 ft bgs	50 ft bgs	51 ft bgs	52 ft bgs	53 ft bgs	54 ft bgs	55 ft bgs	56 ft bgs	57 ft bgs	58 ft bgs	59 ft bgs	60 ft bgs	61 ft bgs	62 ft bgs	63 ft bgs	64 ft bgs	65 ft bgs	66 ft bgs	67 ft bgs	68 ft bgs	69 ft bgs	70 ft bgs	71 ft bgs	72 ft bgs	73 ft bgs	74 ft bgs	75 ft bgs	76 ft bgs	77 ft bgs	78 ft bgs	79 ft bgs	80 ft bgs	81 ft bgs	82 ft bgs	83 ft bgs	84 ft bgs	85 ft bgs	86 ft bgs	87 ft bgs	88 ft bgs	89 ft bgs	90 ft bgs	91 ft bgs	92 ft bgs	93 ft bgs	94 ft bgs	95 ft bgs	96 ft bgs	97 ft bgs	98 ft bgs	99 ft bgs	100 ft bgs	101 ft bgs	102 ft bgs	103 ft bgs																																		
		Middle UCRS (35 - 45 ft bgs)	45 ft bgs	46 ft bgs	47 ft bgs	48 ft bgs	49 ft bgs	50 ft bgs	51 ft bgs	52 ft bgs	53 ft bgs	54 ft bgs	55 ft bgs	56 ft bgs	57 ft bgs	58 ft bgs	59 ft bgs	60 ft bgs	61 ft bgs	62 ft bgs	63 ft bgs	64 ft bgs	65 ft bgs	66 ft bgs	67 ft bgs	68 ft bgs	69 ft bgs	70 ft bgs	71 ft bgs	72 ft bgs	73 ft bgs	74 ft bgs	75 ft bgs	76 ft bgs	77 ft bgs	78 ft bgs	79 ft bgs	80 ft bgs	81 ft bgs	82 ft bgs	83 ft bgs	84 ft bgs	85 ft bgs	86 ft bgs	87 ft bgs	88 ft bgs	89 ft bgs	90 ft bgs	91 ft bgs	92 ft bgs	93 ft bgs	94 ft bgs	95 ft bgs	96 ft bgs	97 ft bgs	98 ft bgs	99 ft bgs	100 ft bgs	101 ft bgs	102 ft bgs	103 ft bgs																																												
		Deep UCRS (52 - 60 ft bgs)	60 ft bgs	61 ft bgs	62 ft bgs	63 ft bgs	64 ft bgs	65 ft bgs	66 ft bgs	67 ft bgs	68 ft bgs	69 ft bgs	70 ft bgs	71 ft bgs	72 ft bgs	73 ft bgs	74 ft bgs	75 ft bgs	76 ft bgs	77 ft bgs	78 ft bgs	79 ft bgs	80 ft bgs	81 ft bgs	82 ft bgs	83 ft bgs	84 ft bgs	85 ft bgs	86 ft bgs	87 ft bgs	88 ft bgs	89 ft bgs	90 ft bgs	91 ft bgs	92 ft bgs	93 ft bgs	94 ft bgs	95 ft bgs	96 ft bgs	97 ft bgs	98 ft bgs	99 ft bgs	100 ft bgs	101 ft bgs	102 ft bgs	103 ft bgs																																																											
		Shallow RGA (60 - 80 ft bgs)	80 ft bgs	81 ft bgs	82 ft bgs	83 ft bgs	84 ft bgs	85 ft bgs	86 ft bgs	87 ft bgs	88 ft bgs	89 ft bgs	90 ft bgs	91 ft bgs	92 ft bgs	93 ft bgs	94 ft bgs	95 ft bgs	96 ft bgs	97 ft bgs	98 ft bgs	99 ft bgs	100 ft bgs	101 ft bgs	102 ft bgs	103 ft bgs																																																																															
		Deep RGA (80 - 100 ft bgs)	100 ft bgs	101 ft bgs	102 ft bgs	103 ft bgs																																																																																																			
		Shallow McNairy (100 - 103 ft bgs)	103 ft bgs																																																																																																						

* Prior to 7/12/2010, the average temperature included digitAM readings that defaulted to 32 °F when a digitAM was out-of-service. Post 7/12/2010, the out-of-service digitAMs were excluded from the average temperatures.



C-400 Heating Progress – East Area



Feed Plant ARRA Milestone Met

ARRA milestone met

- Milestone: remove 25% of piping/equipment
- Reached June 25, one month ahead of schedule
- More than 20,000 ft³ of material dispositioned
- ARRA funding accelerated demolition date one year



Inside C-410



Metals Plant Support Facility Demolished



- 4,000 ft² C-340-D Magnesium Storage Building removed
- Used to store magnesium used in the process to convert uranium tetrafluoride to uranium metal
- Demolition over one week starting in late June



Metals Plant Support Facility Demolished



- C-340-E Emergency Power Structure removed
- Facility housed backup generators to C-340 alarm systems
- Demolition took one day



C-340-D Conveyor System Demolition

- Demolition underway of conveyor system used to move magnesium between C-340 and the C-340-D storage building
- Conveyor is 40 ft tall, 85 feet long, and 8 ft wide
- Demolition began this week



The conveyor before removal work began





DOE Portsmouth/Paducah Project Office