



FILED

SEP 21 2007

PUBLIC SERVICE  
COMMISSION

September 21, 2007

HAND DELIVERED

Ms. Elizabeth O'Donnell  
Executive Director  
Public Service Commission  
211 Sower Boulevard  
Frankfort, KY 40602

Re: PSC Case No. 2007-00168

Dear Ms. O'Donnell:

Please find enclosed for filing with the Commission in the above-referenced case the responses of East Kentucky Power Cooperative, Inc. ("EKPC") to the Commission Staff's data requests in this case dated September 14, 2007, and the Attorney General's data requests dated September 17, 2007. This filing includes an original and ten copies of EKPC's Petition for Confidential Treatment of Information. Attached to the original Petition are pages from the responses containing confidential information. Redacted copies of the responses are attached to the ten copies of the Petition.

Very truly yours,

A handwritten signature in cursive script, appearing to read 'Charles A. Lile'.

Charles A. Lile  
Senior Corporate Counsel

Enclosures

Cc: Parties of Record

EAST KENTUCKY POWER COOPERATIVE, INC.  
PSC CASE NO. 2007-00168  
INFORMATION REQUEST RESPONSE

ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 1

RESPONSIBLE PERSON: Jerry Purvis  
COMPANY: East Kentucky Power Cooperative, Inc.

**Request 1.** Provide copies of any materials in the possession of EKPC, which demonstrates the exercise of due diligence, or lack thereof, in the current construction.

**Response 1.** Attached are EKPC Construction Reports, Daily Project Report and Weekly Updates prepared by Stanley Engineering, and photographs, which reflect information used by EKPC in evaluating the construction schedule change, which is discussed in the response to AG Request No. 8.



**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Tuesday, July 10, 2007 8:28 AM  
**To:** Charles Leveridge  
**Subject:** Cooper Operation

Charlie, Is Cooper performing at full capacity? I've noticed near peak usage this week.

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Wednesday, July 18, 2007 7:48 AM  
**To:** Charles Leveridge  
**Subject:** Re: Construction Weekly Report from Cooper Station

Thanks, I'll see you this morning.

----- Original Message -----

From: Charles Leveridge <charles.leveridge@ekpc.coop>  
To: Amato, Robert A (PSC)  
Cc: Barry Mayfield <barry.mayfield@ekpc.coop>; Susan Gill <susan.gill@ekpc.coop>  
Sent: Wed Jul 18 07:11:43 2007  
Subject: FW: Construction Weekly Report from Cooper Station

Latest construction report.

Charles Leveridge

Plant Manager

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

-----Original Message-----

From: Jerry Purvis  
Sent: Tuesday, July 17, 2007 7:34 PM  
To: Charles Leveridge; Craig Johnson; Chuck Woodall  
Cc: John Twitchell  
Subject: Construction Weekly Report from Cooper Station

Here is the latest construction report for the project.

Jerry P

Jerry Purvis ½ East Kentucky Power Cooperative | J.S.Cooper Power Station

Engineering & Maintenance Superintendent

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

9/20/2007

( 606.561.4138 7 606.561.5697 \* jerry.purvis@ ekpc.coop <<mailto:jerry.purvis@%20ekpc.coop>>

**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Tuesday, May 29, 2007 8:34 AM  
**To:** Charles Leveridge  
**Subject:** RE: Cooper Station update

Charles, I left you a voice mail asking if the cooling tower construction contracts were successfully negotiated. Please respond to this email to advise.

Thanks,  
Bob

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Tuesday, May 22, 2007 3:06 PM  
**To:** Amato, Robert A (PSC)  
**Cc:** Welch, Jim A (PSC); Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** Cooper Station update

Good afternoon Mr. Amato,

Jerry informed me you called this morning. I apologize for not having gotten this information to you sooner. We will do better.

I have attached an example of a letter that was sent to Baker, Marley and Reynolds prepared by Mr. Larry Shell of Stanley Consultants. Two other attachments include our construction plan and weekly update.

If you any questions please feel free to contact Jerry Purvis or me.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Tuesday, June 12, 2007 4:33 PM  
**To:** Charles Leveridge  
**Cc:** Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** RE: slight change  
Thanks for your update and good luck.

Bob

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Tuesday, June 12, 2007 4:31 PM  
**To:** Amato, Robert A (PSC)  
**Cc:** Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** RE: slight change

Mr. Amato,

Your email is very timely. We completed the supplemental piping for Unit 2 a few days ago and have just finished getting the diesel pumps hooked up and started today. Unit 2 is currently generating over 200 MWatts. Unit 1 has been off due to a tube leak and has fires established and should be coming on line later today. The station will be near full load capability as long as condenser fouling and lake temperatures are good.

No other progress report has been put out yet but one will be forthcoming shortly. Baker is on site and excavation work has commenced.

I'll keep you posted. Thank you for your concern. These are challenging times.

Charles Leveridge

-----Original Message-----

**From:** Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
**Sent:** Tuesday, June 12, 2007 3:52 PM  
**To:** Charles Leveridge  
**Subject:** RE: slight change

Charley, have you completed the supplemental cooling water pipeline? Have you gotten the diesel pumps in yet? Have you sent out any more progress reports for the construction project?

Thanks,

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

P.S. I hope everything went alright for Jerry.

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Monday, June 04, 2007 3:31 PM  
**To:** Amato, Robert A (PSC)  
**Subject:** slight change

Mr. Amato,

The diesel pumps can deliver 3750 gpm as opposed to 2750 gpm.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Friday, August 24, 2007 8:29 AM  
**To:** John Twitchell; Charles Leveridge; Jerry Purvis  
**Subject:** USACE Letter

Have you received the letter from the Corps that was discussed at our meeting Friday.

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Monday, September 10, 2007 11:18 AM  
**To:** Charles Leveridge  
**Subject:** RE: 10,000 gpm pumps

thanks

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**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Monday, September 10, 2007 10:37 AM  
**To:** Amato, Robert A (PSC)  
**Subject:** RE: 10,000 gpm pumps

We are testing one phase of the supply cable feeding the unit sub that will source the first two pumps. The megger reading was not as good as the other two phases. We hope to test run later today.

Charles Leveridge

Plant Manager  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

-----Original Message-----

**From:** Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
**Sent:** Monday, September 10, 2007 8:15 AM  
**To:** Jerry Purvis  
**Cc:** Charles Leveridge  
**Subject:** 10,000 gpm pumps

Jerry, let me know when the electric 10,000 gpm pumps go on-line.

Thanks,  
Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)



**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Wednesday, May 23, 2007 8:02 AM  
**To:** Charles Leveridge  
**Cc:** Welch, Jim A (PSC); Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** RE: Cooper Station update

Thank you. The updates and other information will be very helpful to us.

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Tuesday, May 22, 2007 3:06 PM  
**To:** Amato, Robert A (PSC)  
**Cc:** Welch, Jim A (PSC); Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** Cooper Station update

Good afternoon Mr. Amato,

Jerry informed me you called this morning. I apologize for not having gotten this information to you sooner. We will do better.

I have attached an example of a letter that was sent to Baker, Marley and Reynolds prepared by Mr. Larry Shell of Stanley Consultants. Two other attachments include our construction plan and weekly update.

If you any questions please feel free to contact Jerry Purvis or me.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Wednesday, August 15, 2007 3:10 PM  
**To:** Jerry Purvis; Charles Leveridge  
**Cc:** John Twitchell  
**Subject:** RE: Directions to Old Hickory Power Plant

Thanks Jerry. I'll see you on Friday.

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

---

**From:** Jerry Purvis [mailto:jerry.purvis@ekpc.coop]  
**Sent:** Wednesday, August 15, 2007 2:57 PM  
**To:** Charles Leveridge; Amato, Robert A (PSC)  
**Cc:** John Twitchell  
**Subject:** FW: Directions to Old Hickory Power Plant

Gents:

Attached are the directions and security requirements for the trip to COE, Nashville, TN. We shall meet the Lt. Colonel Lindstrom and Mike Wilson at Old Hickory Dam. All the info is in the word document. See you Friday.

If you need anything call me at 606-561-4138 or 606-271-2590.

Regards,

Jerry Purvis

Jerry Purvis | East Kentucky Power Cooperative | J.S.Cooper Power Station

**Maintenance Superintendent**

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

☎ 606.561.4138 📠 606.561.5697 ✉ [jerry.purvis@ekpc.coop](mailto:jerry.purvis@ekpc.coop)



9/20/2007

-----Original Message-----

**From:** Wilson, Mike LRN [mailto:Mike.W.Wilson@usace.army.mil]  
**Sent:** Wednesday, August 15, 2007 2:53 PM  
**To:** Jerry Purvis  
**Subject:** Fw: Directions to Old Hickory Power Plant

Jerry,

Attached you will find directions to Old Hickory Power Plant. We are on for 1000 CDT Friday. I am out of office today and have not yet determined what info is needed for security. Can you go ahead and send the names and DL number of those who will enter the plant. I may need SS numbers also. I will let you know if I do.

Mike Wilson

-----  
Sent from my BlackBerry Wireless Handheld

----- Original Message -----

**From:** Rivera, Delia G LRN  
**To:** Wilson, Mike LRN  
**Cc:** Mistakovich, David LRN  
**Sent:** Wed Aug 15 13:35:41 2007  
**Subject:** Directions to Old Hickory Power Plant

Mike,

Attached are the directions to the plant.

Dee

**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Tuesday, June 12, 2007 4:33 PM  
**To:** Charles Leveridge  
**Cc:** Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** RE: slight change

Thanks for your update and good luck.

Bob

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Tuesday, June 12, 2007 4:31 PM  
**To:** Amato, Robert A (PSC)  
**Cc:** Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** RE: slight change

Mr. Amato,

Your email is very timely. We completed the supplemental piping for Unit 2 a few days ago and have just finished getting the diesel pumps hooked up and started today. Unit 2 is currently generating over 200 MWatts. Unit 1 has been off due to a tube leak and has fires established and should be coming on line later today. The station will be near full load capability as long as condenser fouling and lake temperatures are good.

No other progress report has been put out yet but one will be forthcoming shortly. Baker is on site and excavation work has commenced.

I'll keep you posted. Thank you for your concern. These are challenging times.

Charles Leveridge

-----Original Message-----

**From:** Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
**Sent:** Tuesday, June 12, 2007 3:52 PM  
**To:** Charles Leveridge  
**Subject:** RE: slight change

Charley, have you completed the supplemental cooling water pipeline? Have you gotten the diesel pumps in yet? Have you sent out any more progress reports for the construction project?

Thanks,

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

P.S. I hope everything went alright for Jerry.

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Monday, June 04, 2007 3:31 PM  
**To:** Amato, Robert A (PSC)

9/20/2007

**Subject:** slight change

Mr. Amato,

The diesel pumps can deliver 3750 gpm as opposed to 2750 gpm.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Wednesday, May 30, 2007 5:13 PM  
**To:** Charles Leveridge  
**Subject:** Re: construction meeting

Thanks. Friday around 1 PM would work for me.

Bob

----- Original Message -----

**From:** Charles Leveridge <charles.leveridge@ekpc.coop>  
**To:** Amato, Robert A (PSC)  
**Sent:** Wed May 30 13:40:59 2007  
**Subject:** RE: construction meeting

It would be my pleasure to show you around. What day and time would be preferable to you?

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

-----Original Message-----

**From:** Amato, Robert A (PSC) [<mailto:raamato@ky.gov>]  
**Sent:** Wednesday, May 30, 2007 11:49 AM  
**To:** Charles Leveridge  
**Cc:** Welch, Jim A (PSC)  
**Subject:** RE: construction meeting

Thanks Charles.

I will plan to attend on June 4. I would also like to visit the plant this Thursday afternoon or Friday to familiarize myself with the site. Please let me know if you or your staff could show me around for an hour or so on one of those days.

Thanks,

Bob

Robert A. Amato, PE

Deputy Executive Director

9/20/2007

Kentucky Public Service Commission

502-564-3940

RobertA.Amato@ky.gov

---

From: Charles Leveridge [<mailto:charles.leveridge@ekpc.coop>]  
Sent: Tuesday, May 29, 2007 3:58 PM  
To: Amato, Robert A (PSC); Welch, Jim A (PSC); Norris, Brant A LRN  
Subject: construction meeting

Gentlemen:

Cooper Station will be having a contractor coordination meeting June 4 at 9 AM. Should your schedule permit please feel free to attend.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Tuesday, May 29, 2007 8:34 AM  
**To:** Charles Leveridge  
**Subject:** RE: Cooper Station update

Charles, I left you a voice mail asking if the cooling tower construction contracts were successfully negotiated. Please respond to this email to advise.

Thanks,  
Bob

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Tuesday, May 22, 2007 3:06 PM  
**To:** Amato, Robert A (PSC)  
**Cc:** Welch, Jim A (PSC); Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** Cooper Station update

Good afternoon Mr. Amato,

Jerry informed me you called this morning. I apologize for not having gotten this information to you sooner. We will do better.

I have attached an example of a letter that was sent to Baker, Marley and Reynolds prepared by Mr. Larry Shell of Stanley Consultants. Two other attachments include our construction plan and weekly update.

If you any questions please feel free to contact Jerry Purvis or me.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138



**Susan Gill**

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**Sent:** Tuesday, May 29, 2007 8:34 AM  
**To:** Charles Leveridge  
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Bob

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**Cc:** Welch, Jim A (PSC); Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** Cooper Station update

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If you any questions please feel free to contact Jerry Purvis or me.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

9/20/2007

Re: slight change

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Monday, June 04, 2007 4:21 PM  
**To:** Charles Leveridge  
**Subject:** Re: slight change

Great! Thanks for the update.

Bob

----- Original Message -----

**From:** Charles Leveridge <charles.leveridge@ekpc.coop>  
**To:** Amato, Robert A (PSC)  
**Sent:** Mon Jun 04 15:30:51 2007  
**Subject:** slight change

Mr. Amato,

The diesel pumps can deliver 3750 gpm as opposed to 2750 gpm.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

**Susan Gill**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Monday, August 27, 2007 11:20 AM  
**To:** Charles Leveridge  
**Cc:** Jerry Purvis  
**Subject:** Re: USACE Letter

Any word from Corps?

----- Original Message -----

From: Charles Leveridge <charles.leveridge@ekpc.coop>  
To: Amato, Robert A (PSC)  
Cc: Jerry Purvis <jerry.purvis@ekpc.coop>  
Sent: Fri Aug 24 09:29:32 2007  
Subject: RE: USACE Letter

The electric pump installation is progressing well and it is our intention to start two pumps up late next week and the remaining two pumps the first week of September.

Charles Leveridge

Plant Manager

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

-----Original Message-----

From: Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
Sent: Friday, August 24, 2007 9:15 AM  
To: Charles Leveridge  
Subject: RE: USACE Letter

thanks. Keep me posted.

How are the electric, barge mounted pumps coming along? In service?

Bob

---

From: Charles Leveridge [mailto:charles.leveridge@ekpc.coop]

9/20/2007

Re: USACE Letter

Page 2 of 2

Sent: Friday, August 24, 2007 9:14 AM  
To: Amato, Robert A (PSC)  
Subject: RE: USACE Letter

I have not received anything. I hope we will hear something today.

Charles Leveridge

Plant Manager

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

-----Original Message-----

From: Amato, Robert A (PSC) [<mailto:raamato@ky.gov>]  
Sent: Friday, August 24, 2007 8:29 AM  
To: John Twitchell; Charles Leveridge; Jerry Purvis  
Subject: USACE Letter

Have you received the letter from the Corps that was discussed at our meeting Friday.

Bob

Robert A. Amato, PE  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov) <<mailto:RobertA.Amato@ky.gov>>

9/20/2007



## J.S. Cooper Station Low Water Mitigation Project

May 19, 2007

### Construction Report

**Palmer Engineering.** James Mayo provided the baseline surveys for the plant site to Stanley Consultants. EKPC requested that Palmer tie the plant boundary survey to the COE property. EKPC requested a permanent and temporary easement based on this new survey from the Local COE office. Palmer provided the easement information which consisted of the drawing and legal descriptions.

**COE.** The Local Resource Manager and the Ranger granted "Right of Entry" for EKPC to place emergency pumps along the shoreline.

**FMSM.** Lab soil testing continued for the cooling tower. Geotechnical review was submitted to Stanley Consultants for their comments. Draft report shall be received this week.

**Stanley.** The engineer provided project status. Cooling tower "for bidding purposes only" drawings were issued to Baker. Excavation work drawings will be issued this week. Circulating water piping design is underway. Piping header design for barge pumps was submitted to EKPC project manager to build. Cooling tower chemical building layout code review is underway. Electrical equipment for barge mounted pumps is being discussed with Flexi float Barge Company. Fire protection can be provided from the existing system in the coal yard. Spurlock 4's equipment has been identified that will be used for Cooper's cooling tower.

**Reynolds.** Visited the site this week in preparation of quotation for the cooling tower piping, barge mounted pumps piping, and Hy-Trans pump floats. EKPC discussed the concrete piping details, general arrangement and piping construction plan.

**Hall Contracting of KY.** Hall is on-site to support the upsizing of the header and piping going to the surge tank overflow lines. This provides more flow into the wet well for each unit; thus, increasing the amount of cooling water available to the condensers.

**Baker.** Visited the site this week to see what they could learn about the concrete basin foundation location and working conditions.



### This Week's Activities:

- ❖ Continue to upsize the lines to the surge tank overflow (Unit 1 & 2).
- ❖ March 24<sup>th</sup> - meet with Stanley and SPX/Marley.
- ❖ Complete the Geotechnical Report.
- ❖ Negotiate with Baker for the Concrete Basin.
- ❖ Meet with the Fiscal Court, Somerset.
- ❖ Review the schedule and receive pre-construction drawings from Stanley Consultants.
- ❖ Setup meeting with Spurlock Construction Manager to discuss the removal and replacement of equipment for Spurlock 4.
- ❖ Involve FM Global in fire protection for cooling tower.
- ❖ Provide GA for the electrical equipment as proposed on Flexi Float barges.

### Lake Cumberland Lake Elevation

680.54

May 19, 2007 3:00 PM  
EST



## J.S. Cooper Station Low Water Mitigation Project

May 25, 2007

### Construction Report

**Palmer Engineering.** Baker Concrete requested that Palmer and Stanley locate and install two monuments for the cooling tower foundation. Baker Concrete will layout the basin based on these monuments.

**COE.** The legal descriptions have been submitted to the COE for the temporary and permanent easements. The COE granted permission for the access road and right of entry. The road has been constructed to facilitate locating the diesel pumps along the shoreline of the Cumberland River. Silt fence was installed.

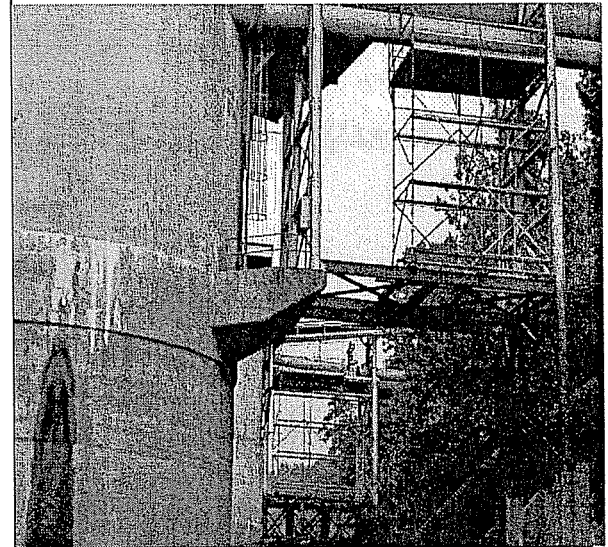
**FMSM.** Soil resistivity has been requested by Stanley for proper grounding of the cooling tower equipment. The draft report for the soils and foundation work has been completed and submitted to Stanley. Baker shall bid based on this work.

**Stanley.** The engineer provided project status at the last meeting on May 24<sup>th</sup>. Baker and Marley were in attendance. Marley indicated that they would need to order materials. Stanley will issue the ITC (Inter-Technical Change) to enable Marley to place the order. The ITC will be approved by our Construction Division and EKPC Senior Leadership. Baker shall submit a quotation based on the "for construction" drawings. Stanley will issue an ITC to EKPC Senior Leadership for this as well. Reynolds will handle the excavation for the basin so that Baker can focus on the building the cooling tower basin. EKPC coal yard will locate the liner materials and prepare the work site. Stanley is working on the scope of work for the Balance of Plant (BOP) that integrates this new equipment with our plant.

**Reynolds.** The cooling tower basin excavation and concrete piping will be performed by Reynolds.

**Hall Contracting of KY.** Hall is continuing the installation of the new shoreline header and piping. Hall will be supplying the materials and labor needed to mount the pumps and switchgear on the barges for Unit 1.

**Baker.** An ITC will be issued by Stanley for concrete cooling tower basin and sent to EKPC Senior Leadership for approval.



#### This Week's Activities:

- ❖ Continue to upsize the lines to the surge tank overflow (Unit 1 & 2).
- ❖ June 4<sup>th</sup> - meet with Stanley, Baker, Reynolds and SPX/Marley. Coordination meeting for Construction.
- ❖ Negotiate with Baker for the Concrete Basin.
- ❖ Update schedule, review for construction drawings.
- ❖ Meet with Spurlock Plant Manager to coordinate delivery of Spurlock 4 equipment and materials.
- ❖ Involve FM Global in fire protection for cooling tower.
- ❖ Stanley provided GA for the electrical equipment as proposed on Flexi Float barges. Hall will submit bid today.

### Lake Cumberland Lake Elevation

680.52

May 25, 2007



## J.S. Cooper Station Low Water Mitigation Project

June 13, 2007

### Construction Report

**Palmer Engineering.** Baker Concrete met with Palmer and surveyed the four corners of the cooling tower and established baselines "A" and "B" for control.

**COE.** EKPC is waiting for the temporary and permanent easements. The COE granted permission for the access road and right of entry. The Ranger is on vacation. Work is progressing well at Wolf Creek.

**FMSM.** Concrete testing scope of work is being developed for the upcoming concrete work by Baker. The concrete mixes will be established and monitored by FMSM. FMSM will make test cylinders for each pour. The cylinder will be broken on 7-day and 28-day breaks to ensure quality.

**Stanley.** The engineer provided project status at the last meeting on June 4<sup>th</sup>. Baker, Reynolds and Marley were in attendance. ITC's (Instruction to Contractor) were signed and authorized to purchase the long lead items: cooling tower materials, large butterfly valves, rebar, and electrical unit substations. Baker submitted the quotation based on the "for construction" drawings. Stanley will issue all ITC's to EKPC Senior Leadership. Reynolds will handle the excavation for the basin so that Baker can focus on the building the cooling tower basin. Stanley is working with Robishaw Engineering, a marine specialist, Houston, TX to design the flexifloat barges arrangement to receive the electrically driven pumps at the end of July.

**Reynolds.** The cooling tower basin excavation is being performed by Reynolds in preparation for Baker Concrete. Reynolds presented pricing for the barges and pump installation. Based on competitive bidding, it will be awarded to Hall Contracting of Kentucky. Reynolds was awarded the excavation, and piping installation for the cooling tower.

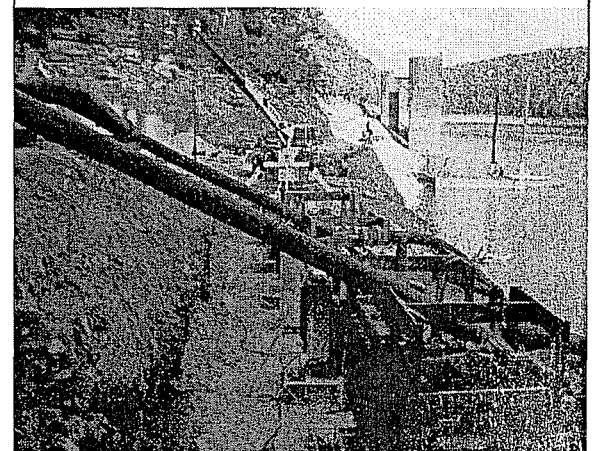
**Hall Contracting of KY.** Hall installed new shoreline header and piping. Hall will be supplying the materials and labor needed to mount the pumps and switchgear on the barges for Unit 1 in July. Barges will be purchased by EKPC.

**Baker.** Baker is on-site preparing to build the basin.



#### This Week's Activities:

- ❖ Excavate cooling tower basin.
- ❖ Receive rebar for basin.
- ❖ Remove trees along construction site.
- ❖ Update schedule, review for construction drawings.
- ❖ Monitor diesel pumps installed for adequate supplemental cooling water.
- ❖ Involve FM Global in fire protection for cooling tower.
- ❖ Stanley modified GA Flexi Float barges.
- ❖ Conference call to discuss barges, structural steel to set pumps, fire protection, potable water, water mass balance.
- ❖ Follow-up with Stanley on Building Code for Chemical Bldg.
- ❖ Back on-site June 18<sup>th</sup>.





EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

June 25, 2007

### Construction Report

**COE.** The COE issued the temporary easement. The COE granted permission for the access road and right of entry.

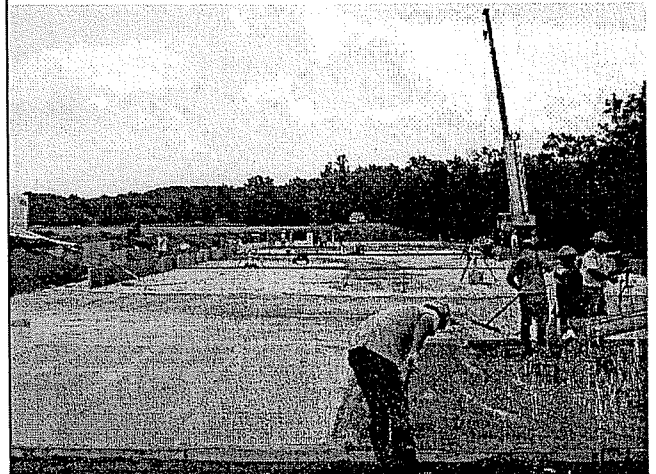
**FMSM.** Concrete testing scope of work is being executed starting June 25<sup>th</sup>. The concrete mixes have been received and FMSM will re-submit a testing procedure for the silica fume enhanced concrete mix. FMSM will make test cylinders for each 150 yards. The cylinder will be broken on 7-day and 28-day breaks to ensure quality. Bottom ash compaction is being tested as well.

**Stanley.** The engineer will be providing project status on June 29<sup>th</sup>. ITC's (Instruction to Contractor) for Reynolds will be discussed and provided for the excavation of the cooling tower. Flexi float barge arrangement for the electrically driven pumps has been accepted and waiting approval from Senior Mgt. Stanley will provide a cost breakout for Baker Concrete. The temporary piping has been issued. The BOP electrical is coming out for review. The structural steel design for the pumps is forthcoming. A design for the crane barge is underway.

**Reynolds.** The cooling tower basin excavation is being performed by Reynolds. Reynolds has completed the excavation through cell "F". Reynolds will present a price for the valve package and the cooling tower piping at the next meeting. Representatives from Reynolds met with the Plant Construction staff to discuss the tie-in to Unit 2 circulating water lines. Plant drawings were located on-site to show the yard utilities in the tie-in location. Stanley and EKPC will prepare the tie-in outage plan.

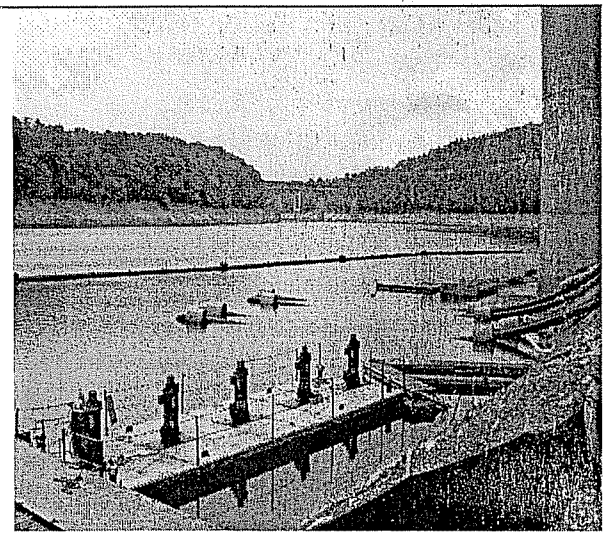
**Hall Contracting of KY.** Hall completed the new shoreline header and piping. Hall will be supplying the materials and labor needed to mount the pumps and switchgear on the Flexi float barges. A requisition has been entered for this work.

**Baker.** Baker is on-site pouring the mud mats over the supplied and compacted bottom ash. Baker began installing the rebar in cell "A" June 25<sup>th</sup>. Mud mats "A-D" are complete.



#### This Week's Activities:

- ❖ Excavate cooling tower basin.
- ❖ Tie rebar in Cell "A".
- ❖ Place concrete in mud mats.
- ❖ Review for new design packages.
- ❖ Review Piping and valves pricing.
- ❖ Setup meeting for June 29<sup>th</sup>.
- ❖ Requisition barges and Installation Contractor.
- ❖ Prepare Bidder's List for BOP Contractor.
- ❖ Follow-up with Stanley on Building Code for Chemical Bldg.







EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

August 1, 2007

### Construction Report

**Palmer Engineering.** Palmer prepared the legal description for the temporary and permanent easements based on the AutoCad mapping. The legal descriptions were submitted to EKPC Legal Division for review.

**FMSM.** The concrete pours are being tested by FMSM labs. The 7-day breaks have been acceptable.

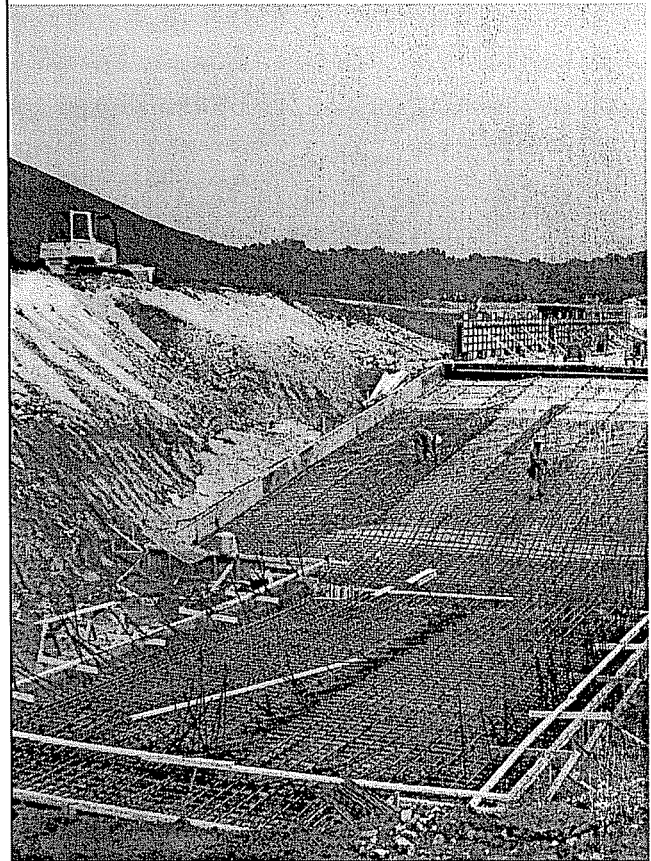
**Stanley.** The engineer prepared drawing package for the Balance of Plant ( BOP). Reynolds will bid this package and submit to EKPC next week. The electrical package has been sent out to Wagner Smith and Power-Tel for bid. Stanley will update EKPC on the engineering to-date August 1-2, 2007.

**Reynolds.** The concrete piping has been ordered from Price Brothers. The exploratory dig by Unit 2 circulating water pipes has been tentatively scheduled for the week of August the 6<sup>th</sup>. Reynolds plans to be back on-site to prepare for the installation of the concrete piping.

**Hall Contracting of KY.** Hall has placed the switchgear on the barge, the bridge steel is complete and the hand rails installed. The pump extensions have been fabricated and two spuds for the crane barge. The crane barge is being configured for potential marine maintenance. It will be used to maintain the pumps, wave breaks, motors, and extensions. It will be used any upcoming marine construction that needs to be done: i.e., installation of four additional pumps and any necessary piping into Unit 1 or Unit 2.

**Baker.** Baker has completed all the concrete work but the last cell walls and the pump pit. Please see picture above. The pump basin mud mat is complete and rebar is being tied for the slab. All eight cells will be complete by the 10<sup>th</sup> of August.

**Power-Tel.** The project manager is on-site performing the job for the temporary electrical equipment necessary to power the barge and pumps. Stanley did the engineering estimate and provided the information to our Upper management. The purchase order was approved August 1, 2007.



#### This Week's Activities:

- ❖ Stanley Mtg., Engineering Review August 1-2, 2007
- ❖ SOX/Marley Materials On-Site August 10<sup>th</sup>.
- ❖ Adams Const., Cooling Tower Erector, On-Site, August 1, 2007, Large labor force to erect tower August 13<sup>th</sup>.
- ❖ Pump Basin complete by August 30<sup>th</sup>.
- ❖ BOP Pkg due August 25<sup>th</sup>.
- ❖ Valves ordered.
- ❖ Concrete Piping ordered.
- ❖ Crane Barge configured and in the water, August 24<sup>th</sup>.
- ❖ Setup next meeting time.

Wolf Creek Lake  
Cumberland Level  
681.63



EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

August 16, 2007

### Construction Report

**Palmer Engineering.** EKPC Legal approved the easements and their descriptions. The COE, Nashville, received it by email today.

**FMSM.** The concrete pours are being tested by FMSM labs. The 7-day breaks have been acceptable.

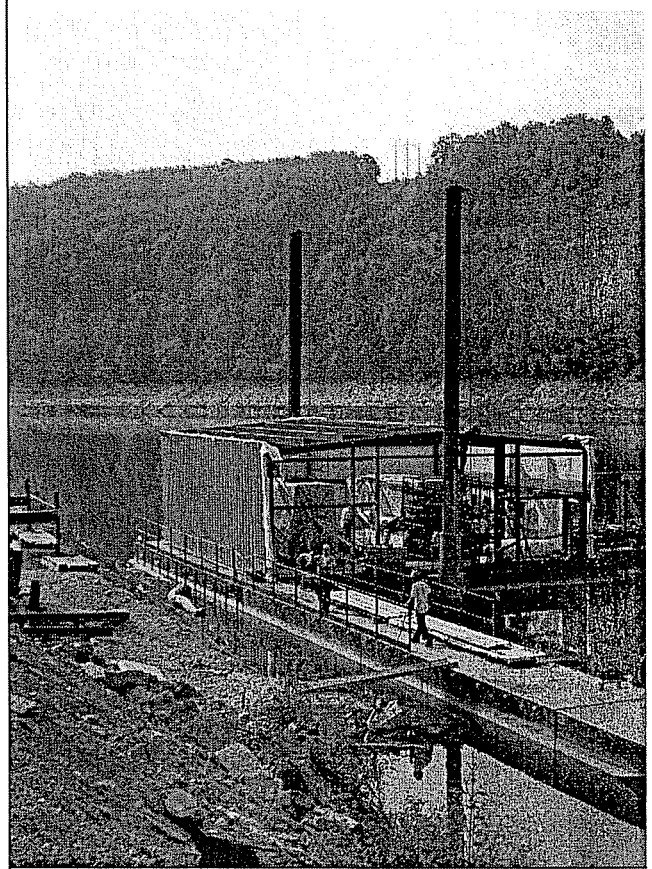
**Stanley.** The engineer prepared the letters for the contractors to establish the 30-day delay. Baker will complete the basin. Reynolds and SPX/Marley have been delayed in their work due to a statement from the COE. The press release said that the lake level will remain at 680 through 2008.

**Reynolds.** The concrete piping has been ordered from Price Brothers. The exploratory dig is on-hold as well as the valve package. The BOP contract is on hold. Reynolds is responsible for the cooling tower backfill and foundation drain when Baker is complete.

**Hall Contracting of KY.** Hall is in the process of erecting the building over the switchgear. The HDPE piping has been fabricated and is ready to be installed once the barge is in position.

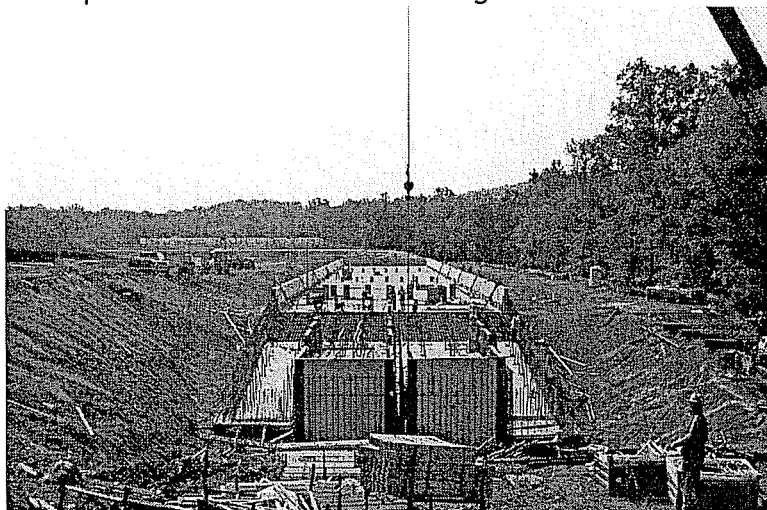
**Baker.** Baker has completed placing concrete in the last cell. They are installing the forms for the pump pit. They have moved to a non-overtime schedule due to the delay.

**Power-Tel.** The project manager and a large labor force are on-site running conduit, cable, and tray to pump barge. Rigid conduit is being placed on the barge for the pumps electrical supply. Conduits have been placed behind Unit 2 underground.



#### This Week's Activities:

- ❖ Cooling Tower Delay
- ❖ Meeting in Nashville, District COE Office. PSC in attendance. August 17, 2007.
- ❖ Two week delay on materials shipment from SPX/Marley.
- ❖ Hall Contracting erection of building continuing Switchgear under roof by the weekend of the 19<sup>th</sup>.
- ❖ Power-Tel working on the conduit and cabling to the pump barge platform.



Wolf Creek Lake  
Cumberland Level  
680.85



## J.S. Cooper Station Low Water Mitigation Project

August 16, 2007

### Construction Report

**Palmer Engineering.** EKPC Legal approved the easements and their descriptions. The COE, Nashville, received it by email today.

**FMSM.** The concrete pours are being tested by FMSM labs. The 7-day breaks have been acceptable.

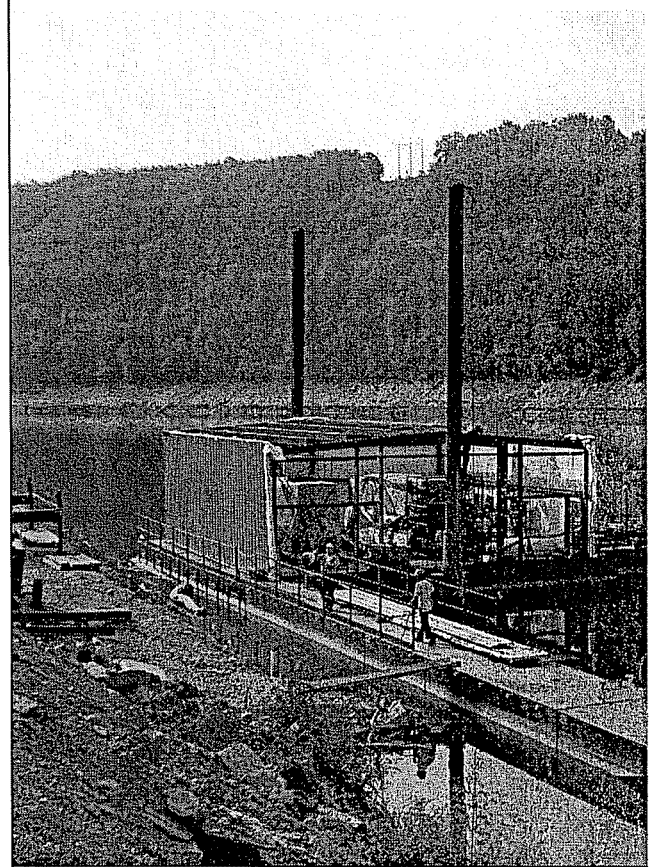
**Stanley.** The engineer prepared the letters for the contractors to establish the 30-day delay. Baker will complete the basin. Reynolds and SPX/Marley have been delayed in their work due to a statement from the COE. The press release said that the lake level will remain at 680 through 2008.

**Reynolds.** The concrete piping has been ordered from Price Brothers. The exploratory dig is on-hold as well as the valve package. The BOP contract is on hold. Reynolds is responsible for the cooling tower backfill and foundation drain when Baker is complete.

**Hall Contracting of KY.** Hall is in the process of erecting the building over the switchgear. The HDPE piping has been fabricated and is ready to be installed once the barge is in position.

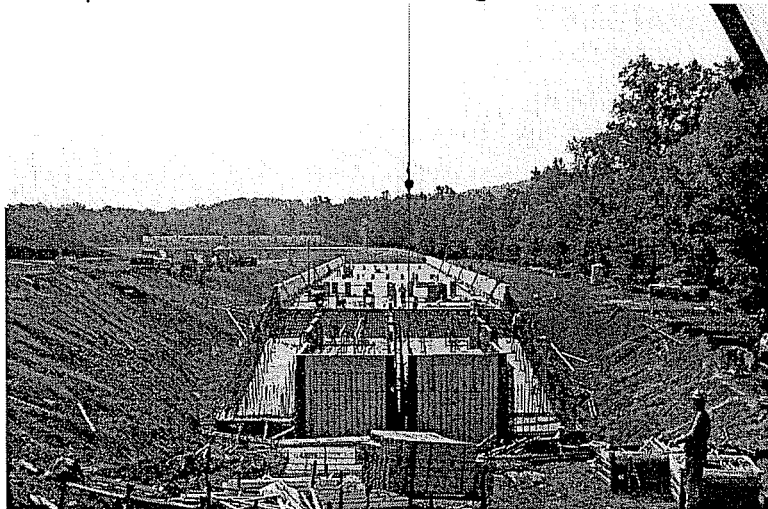
**Baker.** Baker has completed placing concrete in the last cell. They are installing the forms for the pump pit. They have moved to a non-overtime schedule due to the delay.

**Power-Tel.** The project manager and a large labor force are on-site running conduit, cable, and tray to pump barge. Rigid conduit is being placed on the barge for the pumps electrical supply. Conduits have been placed behind Unit 2 underground.



#### This Week's Activities:

- ❖ Cooling Tower Delay
- ❖ Meeting in Nashville, District COE Office. PSC in attendance. August 17, 2007.
- ❖ Two week delay on materials shipment from SPX/Marley.
- ❖ Hall Contracting erection of building continuing Switchgear under roof by the weekend of the 19<sup>th</sup>.
- ❖ Power-Tel working on the conduit and cabling to the pump barge platform.



Wolf Creek Lake  
Cumberland Level  
680.85



## J.S. Cooper Station Low Water Mitigation Project

August 28, 2007

### Construction Report

**COE.** Nashville District, COE has received the legal descriptions and maps for parcels necessary to build a new cooling tower intake should EKPC need it.

**FMSM.** The concrete pours are being tested by FMSM labs. The 7-day breaks have been acceptable.

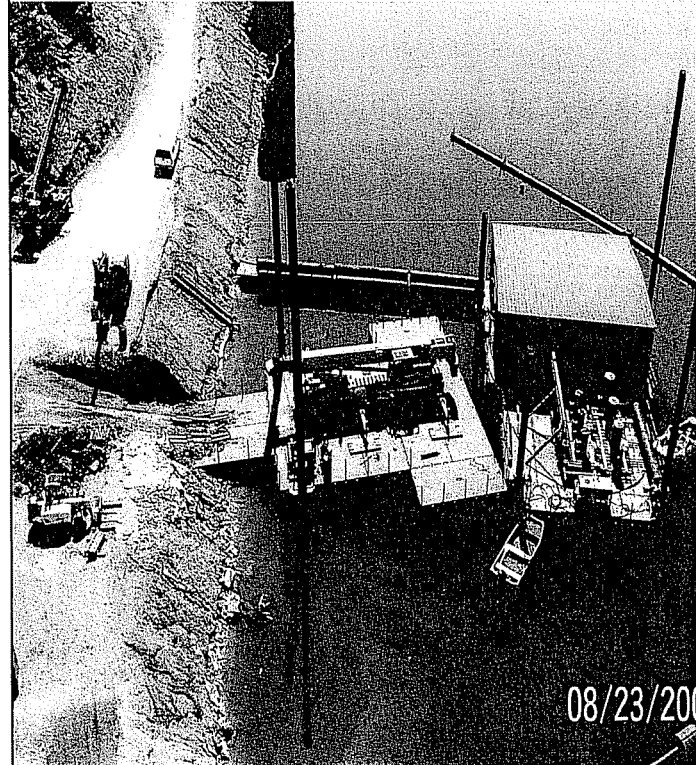
**Stanley.** The engineer has designed a tie for the foundation drains and the sump drains. Tom Mergan will be on-site to support the integration of the pumps on barges with the plant control system tomorrow. A circuits list has been prepared and logic written. Duane Johnson and Kevin Voss are preparing the relay settings for the switchgear on the barges. Reynolds and SPX/Marley are in a hold pattern.

**Reynolds.** A design will be submitted to Reynolds for quotation for the sump and foundation drains. The BOP contract is on hold. Reynolds is responsible for the cooling tower backfill and foundation drain when Baker is complete.

**Hall Contracting of KY.** Hall is in the process of connecting the piping from the header to the pumps. The valves and check valves are installed. The pump barge arrangement will be placed into final position.

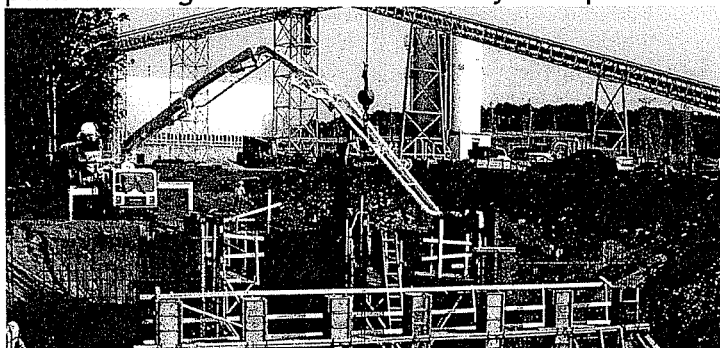
**Baker.** Baker is continuing to work on the pump pit. They are racking the forms out for the pumps. They have moved to a non-overtime schedule due to the delay.

**Power-Tel.** The project manager and a large labor force are on-site running conduit, cable, and tray on the pump barge. Cable tray arrives tomorrow for the medium voltage wiring. Wire pulls will begin once the cable tray is in position.



### This Week's Activities:

- ❖ Letter from Nashville District, COE Office.
- ❖ Two week delay on materials shipment from SPX/Marley continues.
- ❖ Hall Contracting is piping to pumps and relocating barge into final position.
- ❖ Power-Tel is working to finish cable tray, cabling, control wire and terminations by Wednesday, September 5<sup>th</sup>.
- ❖ GE pump motor to arrive Tuesday, September 4<sup>th</sup> from Owensboro, KY facility.
- ❖ Gould's Service Engineer on-site to commission electric pumps September 7<sup>th</sup>.



Wolf Creek Lake  
Cumberland Level  
680.01



EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

August 16, 2007

### Construction Report

**Palmer Engineering.** EKPC Legal approved the easements and their descriptions. The COE, Nashville, received it by email today.

**FMSM.** The concrete pours are being tested by FMSM labs. The 7-day breaks have been acceptable.

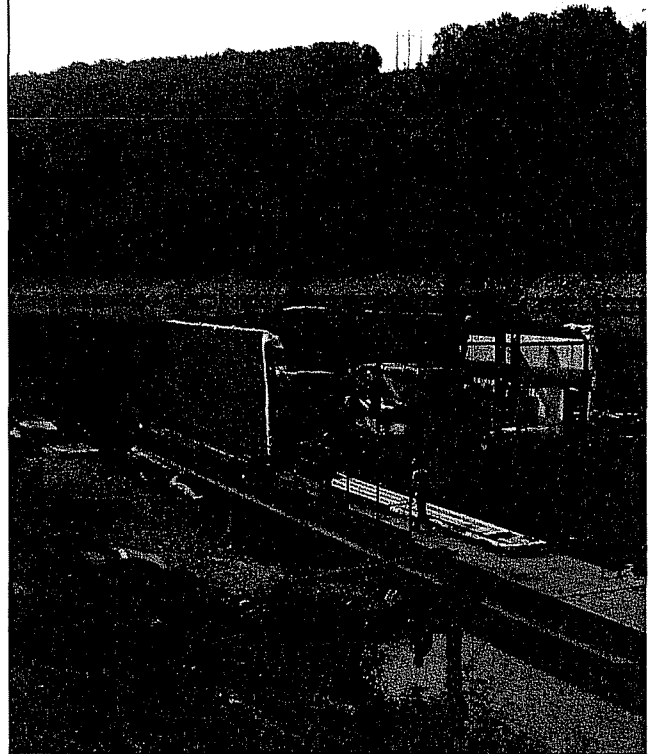
**Stanley.** The engineer prepared the letters for the contractors to establish the 30-day delay. Baker will complete the basin. Reynolds and SPX/Marley have been delayed in their work due to a statement from the COE. The press release said that the lake level will remain at 680 through 2008.

**Reynolds.** The concrete piping has been ordered from Price Brothers. The exploratory dig is on-hold as well as the valve package. The BOP contract is on hold. Reynolds is responsible for the cooling tower backfill and foundation drain when Baker is complete.

**Hall Contracting of KY.** Hall is in the process of erecting the building over the switchgear. The HDPE piping has been fabricated and is ready to be installed once the barge is in position.

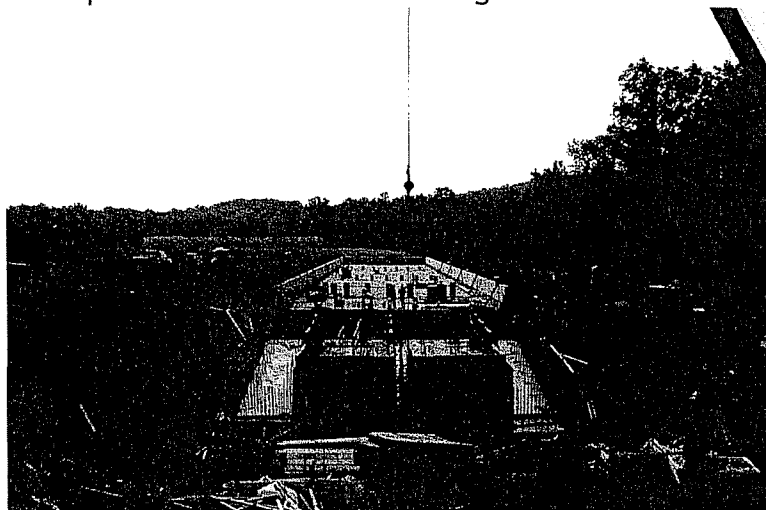
**Baker.** Baker has completed placing concrete in the last cell. They are installing the forms for the pump pit. They have moved to a non-overtime schedule due to the delay.

**Power-Tel.** The project manager and a large labor force are on-site running conduit, cable, and tray to pump barge. Rigid conduit is being placed on the barge for the pumps electrical supply. Conduits have been placed behind Unit 2 underground.



#### This Week's Activities:

- ❖ Cooling Tower Delay
- ❖ Meeting in Nashville, District COE Office. PSC in attendance. August 17, 2007.
- ❖ Two week delay on materials shipment from SPX/Marley.
- ❖ Hall Contracting erection of building continuing Switchgear under roof by the weekend of the 19<sup>th</sup>.
- ❖ Power-Tel working on the conduit and cabling to the pump barge platform.



Wolf Creek Lake  
Cumberland Level  
680.85





EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

August 1, 2007

### Construction Report

**Palmer Engineering.** Palmer prepared the legal description for the temporary and permanent easements based on the AutoCad mapping. The legal descriptions were submitted to EKPC Legal Division for review.

**FMSM.** The concrete pours are being tested by FMSM labs. The 7-day breaks have been acceptable.

**Stanley.** The engineer prepared drawing package for the Balance of Plant ( BOP). Reynolds will bid this package and submit to EKPC next week. The electrical package has been sent out to Wagner Smith and Power-Tel for bid. Stanley will update EKPC on the engineering to-date August 1-2, 2007.

**Reynolds.** The concrete piping has been ordered from Price Brothers. The exploratory dig by Unit 2 circulating water pipes has been tentatively scheduled for the week of August the 6<sup>th</sup>. Reynolds plans to be back on-site to prepare for the installation of the concrete piping.

**Hall Contracting of KY.** Hall has placed the switchgear on the barge, the bridge steel is complete and the hand rails installed. The pump extensions have been fabricated and two spuds for the crane barge. The crane barge is being configured for potential marine maintenance. It will be used to maintain the pumps, wave breaks, motors, and extensions. It will be used any upcoming marine construction that needs to done: i.e., installation of four additional pumps and any necessary piping into Unit 1 or Unit 2.

**Baker.** Baker has completed all the concrete work but the last cell walls and the pump pit. Please see picture above. The pump basin mud mat is complete and rebar is being tied for the slab. All eight cells will be complete by the 10<sup>th</sup> of August.

**Power-Tel.** The project manager is on-site performing the job for the temporary electrical equipment necessary to power the barge and pumps. Stanley did the engineering estimate and provided the information to our Upper management. The purchase order was approved August 1, 2007.



### This Week's Activities:

- ❖ Stanley Mtg., Engineering Review August 1-2, 2007
- ❖ SOX/Marley Materials On-Site August 10<sup>th</sup>.
- ❖ Adams Const., Cooling Tower Erector, On-Site, August 1, 2007, Large labor force to erect tower August 13<sup>th</sup>.
- ❖ Pump Basin complete by August 30<sup>th</sup>.
- ❖ BOP Pkg due August 25<sup>th</sup>.
- ❖ Valves ordered.
- ❖ Concrete Piping ordered.
- ❖ Crane Barge configured and in the water, August 24<sup>th</sup>.
- ❖ Setup next meeting time.

**Wolf Creek Lake  
Cumberland Level  
681.63**



EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

July 13, 2007

### Construction Report

**COE.** The COE has requested that EKPC submit a drawing illustrating the possible sites for a permanent cooling tower intake. The legal descriptions are being prepared by Palmer Engineering. EKPC Legal will review these documents and provide them to the COE.

**FMSM.** The concrete pours are being tested by FMSM labs. The 7-day breaks have been acceptable.

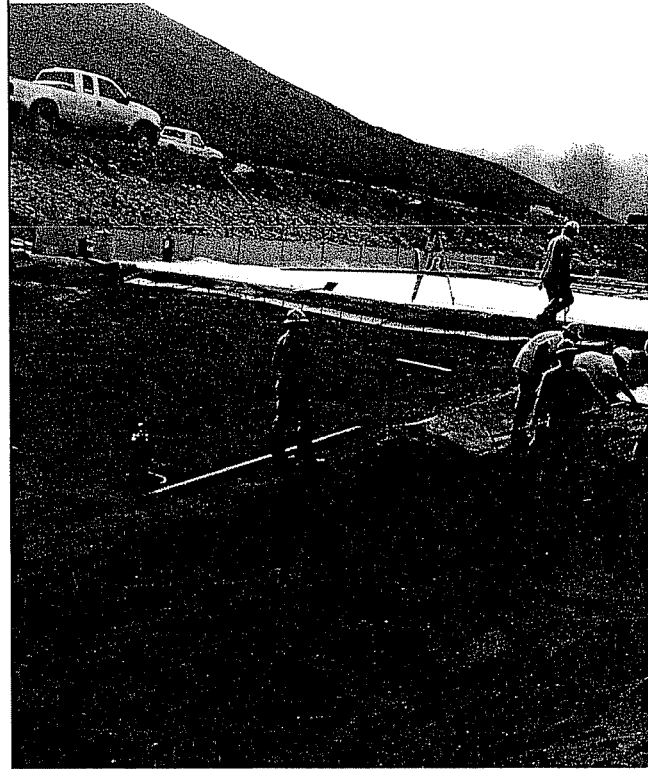
**Stanley.** The engineer prepared the contract documentation for the concrete piping that will tie Unit 2 to the cooling tower. The temporary barge electrical package has been reviewed and released to Power-Tel, A Division of Hall Contracting for pricing. The cooling tower electrical package will come out July 20<sup>th</sup> for review. This package will be submitted to contractors for bid.

**Reynolds.** The cooling tower basin excavation is complete. The concrete piping and fittings have been ordered. Reynolds provided the breakout information to Stanley and EKPC.

**Hall Contracting of KY.** Hall configured the pump barges. The bridge steel for the pumps has been designed and purchased. The steel for the switchgear has been designed and ordered as well. Hall completed the work necessary to tie Unit 1 and Unit 2 together from the diesel and supplemental pumps. This enables cooler water to be pumped into each respective wet well.

**Baker.** Baker has completed the mud mats, bottom ash placement and compaction. Baker has completed the rebar and slabs in cells A-D. They are working toward having the walls complete for 5 cells by August 9<sup>th</sup>.

**Power-Tel.** The project manager visited the site to review the electrical package with the Stanley design engineer. An estimate will be prepared based on material availability and labor for the temporary pump barge arrangement.



#### This Week's Activities:

- ❖ Excavation is complete.
- ❖ Tie rebar in Wall Cell "A" and "C".
- ❖ Place concrete in slabs "B" and "D".
- ❖ Review for new electrical design packages.
- ❖ Order valve packages and concrete piping.
- ❖ Setup next meeting time.
- ❖ Purchase order for Crane barge.
- ❖ Prepare Bidder's List for BOP Contractor.
- ❖ Stanley to complete the design for the Chemical Building per KY Code.

## Wolf Creek Lake Cumberland Level

# 680.53



EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

June 25, 2007

### Construction Report

**COE.** The COE issued the temporary easement. The COE granted permission for the access road and right of entry.

**FMSM.** Concrete testing scope of work is being executed starting June 25<sup>th</sup>. The concrete mixes have been received and FMSM will re-submit a testing procedure for the silica fume enhanced concrete mix. FMSM will make test cylinders for each 150 yards. The cylinder will be broken on 7-day and 28-day breaks to ensure quality. Bottom ash compaction is being tested as well.

**Stanley.** The engineer will be providing project status on June 29<sup>th</sup>. ITC's (Instruction to Contractor) for Reynolds will be discussed and provided for the excavation of the cooling tower. Flexi float barge arrangement for the electrically driven pumps has been accepted and waiting approval from Senior Mgt. Stanley will provide a cost breakout for Baker Concrete. The temporary piping has been issued. The BOP electrical is coming out for review. The structural steel design for the pumps is forthcoming. A design for the crane barge is underway.

**Reynolds.** The cooling tower basin excavation is being performed by Reynolds. Reynolds has completed the excavation through cell "F". Reynolds will present a price for the valve package and the cooling tower piping at the next meeting. Representatives from Reynolds met with the Plant Construction staff to discuss the tie-in to Unit 2 circulating water lines. Plant drawings were located on-site to show the yard utilities in the tie-in location. Stanley and EKPC will prepare the tie-in outage plan.

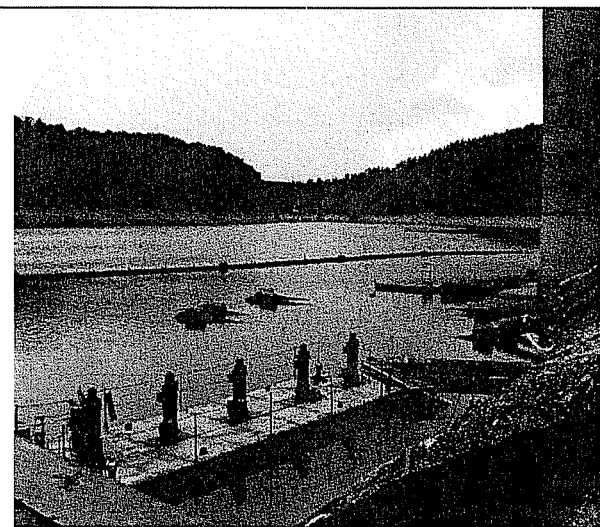
**Hall Contracting of KY.** Hall completed the new shoreline header and piping. Hall will be supplying the materials and labor needed to mount the pumps and switchgear on the Flexi float barges. A requisition has been entered for this work.

**Baker.** Baker is on-site pouring the mud mats over the supplied and compacted bottom ash. Baker began installing the rebar in cell "A" June 25<sup>th</sup>. Mud mats "A-D" are complete.



### This Week's Activities:

- ❖ Excavate cooling tower basin.
- ❖ Tie rebar in Cell "A".
- ❖ Place concrete in mud mats.
- ❖ Review for new design packages.
- ❖ Review Piping and valves pricing.
- ❖ Setup meeting for June 29<sup>th</sup>.
- ❖ Requisition barges and Installation Contractor.
- ❖ Prepare Bidder's List for BOP Contractor.
- ❖ Follow-up with Stanley on Building Code for Chemical Bldg.







EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

June 13, 2007

### Construction Report

**Palmer Engineering.** Baker Concrete met with Palmer and surveyed the four corners of the cooling tower and established baselines "A" and "B" for control.

**COE.** EKPC is waiting for the temporary and permanent easements. The COE granted permission for the access road and right of entry. The Ranger is on vacation. Work is progressing well at Wolf Creek.

**FMSM.** Concrete testing scope of work is being developed for the upcoming concrete work by Baker. The concrete mixes will be established and monitored by FMSM. FMSM will make test cylinders for each pour. The cylinder will be broken on 7-day and 28-day breaks to ensure quality.

**Stanley.** The engineer provided project status at the last meeting on June 4<sup>th</sup>. Baker, Reynolds and Marley were in attendance. ITC's (Instruction to Contractor) were signed and authorized to purchase the long lead items: cooling tower materials, large butterfly valves, rebar, and electrical unit substations. Baker submitted the quotation based on the "for construction" drawings. Stanley will issue all ITC's to EKPC Senior Leadership. Reynolds will handle the excavation for the basin so that Baker can focus on the building the cooling tower basin. Stanley is working with Robishaw Engineering, a marine specialist, Houston, TX to design the flexifloat barges arrangement to receive the electrically driven pumps at the end of July.

**Reynolds.** The cooling tower basin excavation is being performed by Reynolds in preparation for Baker Concrete. Reynolds presented pricing for the barges and pump installation. Based on competitive bidding, it will be awarded to Hall Contracting of Kentucky. Reynolds was awarded the excavation, and piping installation for the cooling tower.

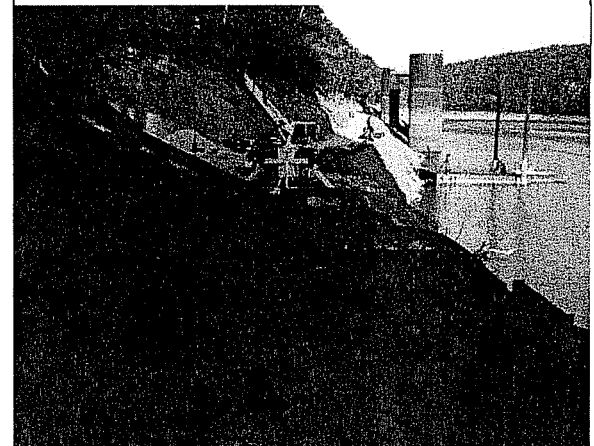
**Hall Contracting of KY.** Hall installed new shoreline header and piping. Hall will be supplying the materials and labor needed to mount the pumps and switchgear on the barges for Unit 1 in July. Barges will be purchased by EKPC.

**Baker.** Baker is on-site preparing to build the basin.



#### This Week's Activities:

- ❖ Excavate cooling tower basin.
- ❖ Receive rebar for basin.
- ❖ Remove trees along construction site.
- ❖ Update schedule, review for construction drawings.
- ❖ Monitor diesel pumps installed for adequate supplemental cooling water.
- ❖ Involve FM Global in fire protection for cooling tower.
- ❖ Stanley modified GA Flexi Float barges.
- ❖ Conference call to discuss barges, structural steel to set pumps, fire protection, potable water, water mass balance.
- ❖ Follow-up with Stanley on Building Code for Chemical Bldg.
- ❖ Back on-site June 18<sup>th</sup>.





EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

May 25, 2007

### Construction Report

**Palmer Engineering.** Baker Concrete requested that Palmer and Stanley locate and install two monuments for the cooling tower foundation. Baker Concrete will layout the basin based on these monuments.

**COE.** The legal descriptions have been submitted to the COE for the temporary and permanent easements. The COE granted permission for the access road and right of entry. The road has been constructed to facilitate locating the diesel pumps along the shoreline of the Cumberland River. Silt fence was installed.

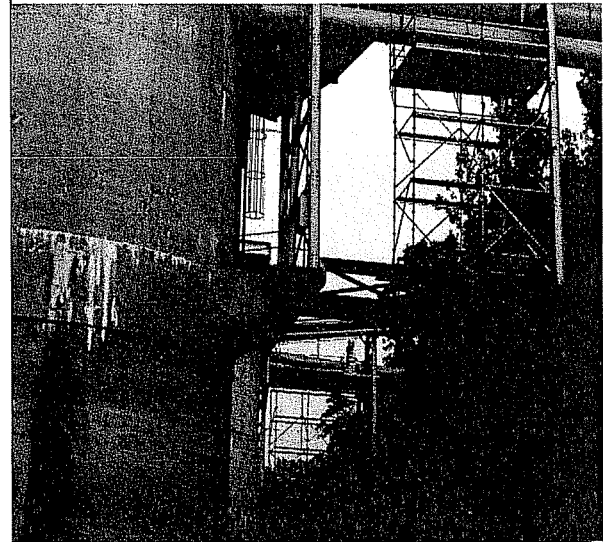
**FMSM.** Soil resistivity has been requested by Stanley for proper grounding of the cooling tower equipment. The draft report for the soils and foundation work has been completed and submitted to Stanley. Baker shall bid based on this work.

**Stanley.** The engineer provided project status at the last meeting on May 24<sup>th</sup>. Baker and Marley were in attendance. Marley indicated that they would need to order materials. Stanley will issue the ITC (Inter-Technical Change) to enable Marley to place the order. The ITC will be approved by our Construction Division and EKPC Senior Leadership. Baker shall submit a quotation based on the "for construction" drawings. Stanley will issue an ITC to EKPC Senior Leadership for this as well. Reynolds will handle the excavation for the basin so that Baker can focus on the building the cooling tower basin. EKPC coal yard will locate the liner materials and prepare the work site. Stanley is working on the scope of work for the Balance of Plant (BOP) that integrates this new equipment with our plant.

**Reynolds.** The cooling tower basin excavation and concrete piping will be performed by Reynolds.

**Hall Contracting of KY.** Hall is continuing the installation of the new shoreline header and piping. Hall will be supplying the materials and labor needed to mount the pumps and switchgear on the barges for Unit 1.

**Baker.** An ITC will be issued by Stanley for concrete cooling tower basin and sent to EKPC Senior Leadership for approval.



#### This Week's Activities:

- ❖ Continue to upsize the lines to the surge tank overflow (Unit 1 & 2).
- ❖ June 4<sup>th</sup> - meet with Stanley, Baker, Reynolds and SPX/Marley. Coordination meeting for Construction.
- ❖ Negotiate with Baker for the Concrete Basin.
- ❖ Update schedule, review for construction drawings.
- ❖ Meet with Spurlock Plant Manager to coordinate delivery of Spurlock 4 equipment and materials.
- ❖ Involve FM Global in fire protection for cooling tower.
- ❖ Stanley provided GA for the electrical equipment as proposed on Flexi Float barges. Hall will submit bid today.

### Lake Cumberland Lake Elevation

680.52

May 25, 2007



EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

May 19, 2007

### Construction Report

**Palmer Engineering.** James Mayo provided the baseline surveys for the plant site to Stanley Consultants. EKPC requested that Palmer tie the plant boundary survey to the COE property. EKPC requested a permanent and temporary easement based on this new survey from the Local COE office. Palmer provided the easement information which consisted of the drawing and legal descriptions.

**COE.** The Local Resource Manager and the Ranger granted "Right of Entry" for EKPC to place emergency pumps along the shoreline.

**FMSM.** Lab soil testing continued for the cooling tower. Geotechnical review was submitted to Stanley Consultants for their comments. Draft report shall be received this week.

**Stanley.** The engineer provided project status. Cooling tower "for bidding purposes only" drawings were issued to Baker. Excavation work drawings will be issued this week. Circulating water piping design is underway. Piping header design for barge pumps was submitted to EKPC project manager to build. Cooling tower chemical building layout code review is underway. Electrical equipment for barge mounted pumps is being discussed with Flexi float Barge Company. Fire protection can be provided from the existing system in the coal yard. Spurlock 4's equipment has been identified that will be used for Cooper's cooling tower.

**Reynolds.** Visited the site this week in preparation of quotation for the cooling tower piping, barge mounted pumps piping, and Hy-Trans pump floats. EKPC discussed the concrete piping details, general arrangement and piping construction plan.

**Hall Contracting of KY.** Hall is on-site to support the upsizing of the header and piping going to the surge tank overflow lines. This provides more flow into the wet well for each unit; thus, increasing the amount of cooling water available to the condensers.

**Baker.** Visited the site this week to see what they could learn about the concrete basin foundation location and working conditions.



#### This Week's Activities:

- ❖ Continue to upsize the lines to the surge tank overflow (Unit 1 & 2).
- ❖ March 24<sup>th</sup> - meet with Stanley and SPX/Marley.
- ❖ Complete the Geotechnical Report.
- ❖ Negotiate with Baker for the Concrete Basin.
- ❖ Meet with the Fiscal Court, Somerset.
- ❖ Review the schedule and receive pre-construction drawings from Stanley Consultants.
- ❖ Setup meeting with Spurlock Construction Manager to discuss the removal and replacement of equipment for Spurlock 4.
- ❖ Involve FM Global in fire protection for cooling tower.
- ❖ Provide GA for the electrical equipment as proposed on Flexi Float barges.

### Lake Cumberland Lake Elevation

680.54

May 19, 2007 3:00 PM  
EST

- Unit 1 – Both circulating water pumps and wetwell fill pump are fully operational. Unit is good for full load. We had to take the new wetwell fill pump out that was installed during the outage (it overloaded the motor) and put the old one back in service. We also added an air removal vent to the inlet header to stop air from getting drawn into the wetwell fill pump and creating a hammer. We repaired a tube leak in the economizer due to sootblower erosion and 3 more small leaks that were found at the burner front during the hydro. Water got into the ash system during the tube leak so the economizer and mechanical dust collector hoppers were cleaned. The main trunk line to the silos plugged and also had to be cleaned out. The condenser and all fan coolers were cleaned again. Hall Co. continues to work on the temporary pump header tie in and will have the final connection made next week.
- Unit 2 – Both circulating water pumps fully operational. Unit is good for full load with 4 diesel pumps operating.
- Low lake water header is complete, pressure tested and connected to Unit 2 surge tank overflow. Four diesel pumps are operational. The depth of the water where the suction lines are located was 28 to 31 feet so Godwin extended the suction lines to 25 ft. plus the mesh screen. That gets us down to 65 degree water. With the pumps running it actually cools down the circ water inlet about 2 degrees.
- The floating platform for the 5 electrical pumps that we have here at Cooper will be completed Friday afternoon. We will mount the pumps and should have it operational about Wednesday of next week. With this system in place we think that it will deliver enough flow to allow the shut down of the diesel pumps at night. Burnside will be grateful.
- Frye Lumber Co. is in the process of clearing trees for the cooling tower.
- Office trailers and tool trailers for Baker Concrete and Reynolds Inc. have arrived on site and we are installing additional transformers to handle their electrical load.
- The Coal Yard is working with Baker to cut and protect as much of the coal pile runoff pond liner as possible and have it ready be Wednesday morning.
- Reynolds plans on starting the cooling tower site excavation on Wednesday morning with their big Komatsu excavator. That should be a show.
- We have some real concerns about the integrity of the lake bank site where the diesel pumps are sitting. We are installing gabien rock baskets on the earthen wall behind the pumps to help support the bank when it rains. The baskets that are available locally are not the size that we really need but we are using them anyway. We are still looking for more that are the right size.



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 9/19/07	Day of Week: Wednesday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 56 <sup>0</sup> F to 88 <sup>0</sup> F Clear to Partly Cloudy		Days Lost: 0.8 - Total
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Continued grinding the columns in Cell #8 (western most cooling tower cell) to remove fins and projections.</li> <li>2. Placed forms for 7 columns and 2 pier/columns in Cell #8 during the previous 2 days. Placed concrete in these items today.</li> <li>3. Completed stripping forms from the walls at the east end of the pump pit and the west end of Cell #8.</li> <li>4. Completed placing forms for the eastern half of Cell #8 south wall earlier in the week.</li> <li>5. Began placing forms for the eastern half of Cell #8 north wall.</li> <li>6. Resumed placing forms for the pump pit deck slab on Monday and continued thru today.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Resumed connection of the remaining two (2) 24” HDPE pipes to the pump barge.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. No activity.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. No activity.</li> </ol>				
<p>Look Ahead:</p> <p>Baker – Place concrete for the eastern half of Cell #8 north and south walls on Sept 21.</p> <p>Hall Contracting – Complete connection of the last two (2) 24” discharge pipes between the pump barge and the header on the shore.</p>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	18	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1, Excavator – 1, fork lift - 1
Adams Cooling Tower	0	fork lift – 1
Power-Tel	0	High lift platform – 1

### REMARKS / COMMENTS:

<ol style="list-style-type: none"> <li>1. EKPC fencing contractor, Southern Fencing, resumed installation of the perimeter fence around the cooling tower storage area at the east end of the plant site earlier this week.</li> </ol>
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Daily Report by H. A. Mann



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 9/11/07	Day of Week: Tuesday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers	Weather: 71 <sup>0</sup> F to 83 <sup>0</sup> F, Overcast with light to heavy rains during the morning, clearing in the afternoon. No time lost due to rain.		Days Lost: 0.8 - Total	
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Continued grinding the columns in Cell #8 (western most cooling tower cell) to remove fins and projections.</li> <li>2. Placed concrete for the walls at the east end of the pump pit and the west end of Cell #8.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Disconnected the two (2) previously installed 24” HDPE pipes at the pumps on the barge, inserted 12” long spool piece between the pump control valve and 24” HDPE pipe, and then reconnected the two (2) pipes.</li> <li>2. Continued working on installation of the third 24” HDPE pipe between the pump header on shore and the pump barge.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. Assisted EKPC personnel with the check out of the pump barge switchgear and start-up of Pump C and Pump D.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. No activity.</li> </ol>				
<p>Look Ahead:</p> <p>Baker – Place concrete for the south wall of Cell #8 on Sept 14.</p> <p>Hall Contracting – Complete connection of the last two (2) 24” discharge pipes between the pump barge and the header on the shore.</p> <p>Power-Tel – Complete electrical work on the pump barge.</p>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) - 2, bulldozer (J.D. 650H) - 1
Baker Concrete	19	Mobile Crane - 1, fork lift - 1
Hall Contracting	5	Mobile Crane - 1, Excavator - 2
Adams Cooling Tower	0	fork lift - 1
Power-Tel	3	High lift platform - 1

### REMARKS / COMMENTS:

<ol style="list-style-type: none"> <li>1. EKPC fencing contractor, Southern Fencing, did not work today.</li> <li>2. EKPC placed Pump C in service at 5:50 pm and Pump D was placed in service at 5:55 pm. The four (4) diesel pumps were shut off at 6:05 pm.</li> </ol>
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Daily Report by H. A. Mann



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 9/10/07	Day of Week: Monday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 65 <sup>0</sup> F to 83 <sup>0</sup> F, Overcast with light to heavy rains at 4:45 pm. No time lost due to rain.		Days Lost: 0.8 - Total
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Resumed patching form tie holes in the pump pit walls and grinding the columns in Cell #8 (western most cooling tower cell) to remove fins and projections.</li> <li>2. Continued placing forms for the walls at the east end of the pump pit and the west end of Cell #8.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Continued installation of the 24” HDPE pipe between the pump header on shore and the pump barge. Working on the third pipe. Two (2) pipes were connected this past week-end.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. One phase of one circuit of the power wiring between the existing switchgear in the power plant and the transformer on the pump barge had a 3.0 micro-amp leakage current when tested last Saturday. A small current is being put on the cable to dry it out.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. No activity.</li> </ol>				
<p>Look Ahead:</p> <p>Baker – Place concrete for the walls at the east end of the pump pit and the west wall of Cell #8 on Sept 11.</p> <p>Hall Contracting – Complete connection of the last two (2) 24” discharge pipes between the pump barge and the header on the shore.</p> <p>Power-Tel – Start up barge pumps.</p>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) - 2, bulldozer (J.D. 650H) - 1
Baker Concrete	16	Mobile Crane - 1, fork lift - 1
Hall Contracting	5	Mobile Crane - 1, Excavator - 2
Adams Cooling Tower	0	fork lift - 1
Power-Tel	5	High lift platform - 1

### REMARKS / COMMENTS:

1. EKPC fencing contractor, Southern Fencing (2 men), did not work today.
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Daily Report by H. A. Mann



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 9/6/07	Day of Week: Friday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 71 <sup>0</sup> F to 97 <sup>0</sup> F, PC to Clear		Days Lost: 0.8 - Total
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Place concrete for 16 columns in Cell #8 (western most cooling tower cell).</li> <li>2. Continued placing forms and reinforcing steel for the walls at the east end of the pump pit and the west wall of Cell #8.</li> <li>3. Continued placing reinforcing steel for the north wall of Cell #8.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Continued installation of the 24” HDPE pipe between the pump header on shore and the pump barge. Working on the connections at the shore header.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. Terminating power wiring at the transformers and at the existing switchgear in the power plant.</li> <li>2. Completed pulling power wiring from the existing power plant and the pump barge. Began splicing the individual (3 sections) lengths of cable together. Splices will be made on the access walkway to the pump barge and at the SE corner of Unit #2.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. No activity.</li> </ol>				
<p><b>Look Ahead:</b></p> <p>Baker – Place concrete for the walls at the east end of the pump pit and the west wall of Cell #8 on Sept 11.</p> <p>Hall Contracting – Connect 24” discharge piping in the lake to the header on the shore – scheduled to be completed this week-end.</p> <p>Power-Tel – Complete installation of power and control wire and start up barge pumps this coming week-end.</p>				

<b>Visitors:</b>
1. Duane Johnson, SCI Electrical Engineer

<b>Material Received:</b>
1. 5 kV power cable to complete the circuits between the power plant and the pump barge.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	16	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1, Excavator – 2
Adams Cooling Tower	0	fork lift – 1
Power-Tel	12	High lift platform – 1

### REMARKS / COMMENTS:

<ol style="list-style-type: none"> <li>1. EKPC fencing contractor, Southern Fencing (2 men), resumed installation of a chain link fence around the cooling tower structure storage area at the east side of the plant site.</li> <li>2. Start-up of the pump barge is scheduled for this week-end.</li> </ol>
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Daily Report by H. A. Mann





## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 9/6/07	Day of Week: Thursday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 73 <sup>0</sup> F to 97 <sup>0</sup> F, PC to Clear		Days Lost: 0.8 - Total
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Aligning forms for 16 columns in Cell #8 (western most cooling tower cell).</li> <li>2. Continued placing forms and reinforcing steel for the walls at the east end of the pump pit and the west wall of Cell #8.</li> <li>3. Continued placing reinforcing steel for the north and south wall of Cell #8.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Resumed installation of the 24” HDPE pipe between the pump header on shore and the pump barge. Began connection at the shore header.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. Terminating power wiring at the transformers and pump breakers on the barge.</li> <li>2. Installed air terminals on top of the barge spuds for lightning protection.</li> <li>3. Completed power wire terminations at the pump motors and the pump discharge control valves.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. No activity.</li> </ol>				
<p><b>Look Ahead:</b></p> <p>Baker – Place concrete for 16 columns of Cell #8 on Sept 7 and for the west walls on Sept 11.</p> <p>Hall Contracting – Connect 24” discharge piping in the lake to the header on the shore – scheduled to be completed by Sept 7.</p> <p>Power-Tel – Complete installation of power and control wire by Sept 7. Start up barge pumps this coming week-end.</p>				

<b>Visitors:</b>
1. Duane Johnson, SCI Electrical Engineer

<b>Material Received:</b>
1. Floating walkway for connection between pump barge walkway and shore.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	16	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1, Excavator – 2
Adams Cooling Tower	0	fork lift – 1
Power-Tel	8	High lift platform – 1

### REMARKS / COMMENTS:

<ol style="list-style-type: none"> <li>1. EKPC hired a fencing contractor to build a chain link fence around the cooling tower structure storage area at the east side of the plant site. Installation of this fence began earlier this week.</li> <li>2. Hall Contracting demobilized the dozer with the side boom.</li> </ol>
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Daily Report by H. A. Mann



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 9/5/07	<b>Day of Week:</b> Wednesday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 73 <sup>0</sup> F to 97 <sup>0</sup> F, PC to Clear		<b>Days Lost:</b> 0.8 - Total	
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Placing reinforcing steel and forms for the columns in Cell 8 (western most cooling tower cell).</li> <li>2. Continued placing forms and reinforcing steel for the north, south and west wall of Cell 8.</li> <li>3. Placing forms for the western half of the top slab of the pump pit.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. The 24” HDPE pipe between the pump header on shore and the pump barge has not been installed. Waiting for special flanges to make the shore connection.</li> <li>2. 24” discharge control valves have been bolted to the reducers on the pumps.</li> <li>3. Roof vents and louvers have been installed.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. Continued wiring the switchgear on the barge.</li> <li>2. Pulling power and control wire from the switchgear inside the pump barge building to the pumps and valves on the barge deck.</li> <li>3. Power and control wire has been installed on the cable tray on the pump barge from the access walkway to inside the transformers.</li> <li>4. Cable tray, conduit and wire has been installed from the existing switchgear inside the power plant to the SE corner of Unit #2.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. Received several truck loads of cooling tower cell distribution headers during the last few days.</li> </ol> <p>Look Ahead:</p> <p>Baker – Place concrete for numerous columns of Cell #8 on Sept 7 and for the west walls on Sept 11.</p> <p>Hall Contracting – Connect 24” discharge piping in the lake to the header on the shore – scheduled to be completed by Sept 7.</p> <p>Power-Tel – Complete installation of power and control wire by Sept 7.</p>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	16	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1, Excavator – 2, side boom dozer – 1
Adams Cooling Tower	2	fork lift – 1
Power-Tel	8	High lift platform – 1

### REMARKS / COMMENTS:

1. Baker’s progress has been slow because several workers quit this week. Additional workmen are scheduled to be on the site later this week.
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Daily Report by H. A. Mann



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 8/29/07	Day of Week: Wednesday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 73 <sup>0</sup> F to 93 <sup>0</sup> F, PC to Clear		Days Lost: 0.8 - Total
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Placed concrete for 16 columns in Cell 8 (western most cooling tower cell)</li> <li>2. Placing reinforcing steel for the columns in Cell 8.</li> <li>3. Completed stripping the forms from the walls of the pump pit.</li> <li>4. Continued placing reinforcing steel for the south and west wall of Cell 8.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Continued connecting the 24” HDPE pipe in the lake to the pump header on shore.</li> <li>2. Bolting the 24” discharge control valves to the reducers on the pumps.</li> <li>3. Continued installing roof vents and louvers.</li> <li>4. Continued installation of pump barge exterior perimeter lights.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. Continued wiring the switchgear on the barge.</li> <li>2. Continued installing conduit and cable tray inside the switchgear building and on the barge deck for the pumps.</li> <li>3. Began pulling wire in the conduit along the east side of Unit #2.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. No activity..</li> </ol>				
<p>Look Ahead:</p> <p>Baker – Place concrete for the wall at the southwest corner of Cell #8 on Sept 11.</p> <p>Hall Contracting – Connect 24” discharge piping in the lake to the header on the shore – scheduled to be completed by Sept 7.</p> <p>Power-Tel – Complete assembly of barge switchgear, and installation of conduit and cable tray.</p>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. Platform forms for the deck of the cooling tower pump pit.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	24	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1, Excavator – 2, side boom dozer – 1
Adams Cooling Tower	2	fork lift – 1
Power-Tel	12	High lift platform – 1

### REMARKS / COMMENTS:

1.
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Daily Report by H. A. Mann



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 8/27/07	<b>Day of Week:</b> Monday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 76 <sup>0</sup> F to 91 <sup>0</sup> F, PC to Clear		<b>Days Lost:</b> 0.8 - Total	
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Continued placing forms and reinforcing steel for the columns in Cell 8 (western most cooling tower cell).</li> <li>2. Began stripping the forms from the walls of the pump pit.</li> <li>3. Continued placing reinforcing steel for the north, south and west wall of Cell 8.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Placed concrete over the electrical duct bank on the west side of Intake #2 access walkway just south of Unit #2.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. Wiring the switchgear on the barge.</li> <li>2. Installing conduit and cable tray inside the switchgear building and on the barge deck for the pumps.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. Received a truck load of fan fiberglass cone sections for the CT fans and miscellaneous parts.</li> </ol> <p>Look Ahead:</p> <p>Baker – Place concrete for columns and walls of Cell #8 during next week.</p> <p>Hall Contracting – Connect 24” discharge piping in the lake to the header on the shore.</p> <p>Power-Tel – Complete assembly of barge switchgear, and installation of conduit and cable tray.</p>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. Cooling Tower fan fiberglass cone sections & miscellaneous parts.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	19	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1, Excavator – 2, side boom dozer – 1
Adams Cooling Tower	2	fork lift – 1
Power-Tel	8	High lift platform – 1

### REMARKS / COMMENTS:

1.
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Daily Report by H. A. Mann



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 8/28/07	Day of Week: Tuesday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 76 <sup>0</sup> F to 91 <sup>0</sup> F, PC to Clear		Days Lost: 0.8 - Total
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Continued placing forms for the columns in Cell 8 (western most cooling tower cell).</li> <li>2. Continued stripping the forms from the walls of the pump pit.</li> <li>3. Continued placing reinforcing steel for the south and west wall of Cell 8.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Installed cable for handrail on the maintenance barge.</li> <li>2. Began connecting the 24” HDPE pipe in the lake to the pump header on shore.</li> <li>3. Installed remaining two (2) 24” discharge control valves on the pumps.</li> <li>4. Began installing roof vents and louvers.</li> <li>5. Began installation of pump barge exterior perimeter lights.</li> <li>6. Relocated the barge spud which was centered in front of the building’s overhead door opening.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. Continued wiring the switchgear on the barge.</li> <li>2. Continued installing conduit and cable tray inside the switchgear building and on the barge deck for the pumps.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. No activity..</li> </ol>				
<b>Look Ahead:</b>				
<p>Baker – Place concrete for 15 columns in Cell #8 this Wednesday.</p> <p>Hall Contracting – Connect 24” discharge piping in the lake to the header on the shore.</p> <p>Power-Tel – Complete assembly of barge switchgear, and installation of conduit and cable tray.</p>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
<ol style="list-style-type: none"> <li>1. Roof vents and louvers for the pump barge building.</li> <li>2. Light fixtures for the pump barge.</li> </ol>

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	24	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1, Excavator – 2, side boom dozer – 1
Adams Cooling Tower	2	fork lift – 1
Power-Tel	12	High lift platform – 1

### REMARKS / COMMENTS:

1.
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Daily Report by H. A. Mann



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 8/24/07	Day of Week: Friday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 76 <sup>0</sup> F to 103 <sup>0</sup> F, PC to Clear		Days Lost: 0.8 - Total
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Continued placing forms and reinforcing steel for the columns in Cell 8.</li> <li>2. Placed concrete for 7 columns in Cell 8.</li> <li>3. Placed concrete for the walls of the pump pit.</li> <li>4. Continued placing reinforcing steel for the north and south walls of Cell 8.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Complete installing 3 of the motors on the pumps.</li> <li>2. Installed 20” x 24” increasers on the pump discharge.</li> <li>3. Installed 24” discharge control valves on the pumps.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. Continued assembly/connecting the switchgear on the barge.</li> <li>2. Installing conduit for power and control wiring inside the switchgear building on the pump barge.</li> <li>3. Installing conduit on the east side of Intake No. 2’s access walkway.</li> <li>4. Began installing cable tray in the pump barge building and on the barge deck for the pumps.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. No activity.</li> </ol>				
<p><b>Look Ahead:</b></p> <p>Baker – Place concrete for columns and walls of Cell #8 during next week.</p> <p>Hall Contracting – Connect 24” discharge piping in the lake to the header on the shore.</p> <p>Power-Tel – Complete assembly of barge switchgear, and installation of conduit and cable tray.</p>				

<b>Visitors:</b>
1. Boyce Gene Elza, Account Manager, Symons Forming Products.

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	25	Mobile Crane – 1, fork lift – 1
Hall Contracting	8	Mobile Crane – 1, Excavator – 2, side boom dozer – 1
Adams Cooling Tower	0	fork lift – 1
Power-Tel	8	High lift platform – 1

### REMARKS / COMMENTS:

1.
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Daily Report by H. A. Mann



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 8/21/07	Day of Week: Tuesday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers	Weather: 71 <sup>0</sup> F to 95 <sup>0</sup> F, PC to overcast with light intermittent showers throughout the day.		Days Lost: 0.8 - Total	
<b>Description of Activities:</b>				
<p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Completed stripping forms from the eastern portion of Cell 8 (western most cell) base slab.</li> <li>2. Began placing forms and reinforcing steel for the columns in Cell 8.</li> <li>3. Continue placing forms and reinforcing steel for the walls of the pump pit.</li> <li>4. General clean-up of the construction site.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Complete erection of the pre-engineered building on the Flexifloat barges.</li> <li>2. Install 3 pumps on the Flexifloat barges.</li> <li>3. Install handrail (cable system) on the barge walkway.</li> <li>4. Completed assembly of the second set of Flexifloat barges to be used for maintenance.</li> </ol> <p>Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)</p> <ol style="list-style-type: none"> <li>1. Installing and wiring lights inside the pre-engineered building on the Flexifloat barges.</li> <li>2. Removed the protective covering from the 5 kV switchgear, transformers and 480 V switchgear inside the pre-engineered building on the Flexifloat barges.</li> <li>3. Installing conduit on the east side of Intake No. 2's access walkway.</li> </ol> <p>Adams Cooling Tower</p> <ol style="list-style-type: none"> <li>1. Continued to received and unload cooling tower packing material, fiberglass fan cone section, aluminum access walkway and miscellaneous parts. Materials are being stored at the east end of the plant site.</li> </ol>				
<p>Look Ahead:</p> <p>Baker - Walls of the pump pit will be cast on August 23 or 24, 2007.</p> <p>Hall Contracting – Install pumps and the pump suction drop pipes on the barge mid-week. Also, complete maintenance barge and “walk” excavator onto barge tomorrow.</p>				

<b>Visitors:</b>
1. None.

<b>Material Received:</b>
1. Four (4) truck loads of cooling tower materials containing tower packing, fan cone sections, access walkway and miscellaneous items.

Work Force	Equipment On-Site	
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	25	Mobile Crane – 1, fork lift – 1
Hall Contracting	6	EKPC Mobile Crane – 1, Excavator - 1
Adams Cooling Tower	2	fork lift – 1
Power-Tel	4	High lift platform - 1

### REMARKS / COMMENTS:

1.
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Daily Report by H. A. Mann



# DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/27/07	<b>Day of Week:</b> Friday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers		<b>Weather:</b> 69 <sup>0</sup> F to 90 <sup>0</sup> F, Cloudy		<b>Days Lost:</b> 0.8 - Total
<b>Description of Activities:</b>				
Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) 1. No work today. All excavation for the cooling tower is complete. Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System). 1. No work today. Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System) 1. Installing guide on spud piles and fabricating the 30 inch intake pipe..				
Look Ahead: Estimate that Cell #6 walls will be cast on July 31 and that Cell #7 walls and pump pit base slab will be placed on August 2, 2007.				

<b>Visitors:</b>

<b>Material Received:</b>
1. Reinforcing Steel

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	20	Mobile Crane – 1, fork lift – 1
Hall Contracting	0	

### REMARKS / COMMENTS:

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Daily Report by Wayne E. Brugger





## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/26/07	<b>Day of Week:</b> Thursday	<b>East Kentucky Power Cooperative</b>
<b>Project Name:</b> John S. Cooper Station – Cooling Towers		<b>Weather:</b> 69°F to 90°F, Cloudy		<b>Days Lost:</b> 0.8 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Continued construction of wall forms for Cells #6 and #7.</li> <li>2. Placed concrete for Cell #5 walls</li> <li>3. Continued placing reinforcing in the pump pit sump area.</li> <li>4. Placed concrete for east stair tower base.</li> <li>5. Placed concrete in short columns at west end of Cell #4.</li> <li>6. Continued general clean-up of the east end cells (cells #1, #2 #3 and #4) of the cooling tower substructure.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Installing guide on spud piles and fabricating the 30 inch intake pipe..</li> </ol> <p>Look Ahead: Estimate that Cell #7 walls will be cast on July 31 and that Cell #6 walls and pump pit base slab will be placed on August 2, 2007.</p>				

<b>Visitors:</b>

<b>Material Received:</b>
1. Reinforcing Steel

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	20	Mobile Crane – 1, fork lift – 1
Hall Contracting	0	

### REMARKS / COMMENTS:

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Daily Report by Wayne E. Brugger



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/25/07	<b>Day of Week:</b> Wednesday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 69 <sup>0</sup> F to 90 <sup>0</sup> F, Cloudy		<b>Days Lost:</b> 1.0 - Total	
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Continued construction of wall forms for Cells #5 and #7.</li> <li>2. Started forming walls of Cell #6.</li> <li>3. Started forming short columns at west end of Cell #4.</li> <li>4. Completed installing reinforcing for walls of Cell #6.</li> <li>5. Continued placing reinforcing in the pump pit sump area.</li> <li>6. Continued forming and preparation to cast east stair tower base.</li> <li>7. Continued general clean-up of the east end cells (cells #1, #2 &amp; #3) of the cooling tower substructure.</li> <li>8. Lost approximately one hour due to rain (0.1 day).</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Installing guide on spud piles and fabricating the 30 inch intake pipe.</li> </ol> <p>Look Ahead: Baker Concrete intends to place north and south walls of Cell #5 and floor of east stair tower on July 26, 2007. Estimate that Cell #7 walls will be cast on July 30 and that Cell #6 walls and pump pit base slab will be placed on August 1 or 2, 2007.</p>				

<b>Visitors:</b>

<b>Material Received:</b>
1.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) - 2, bulldozer (J.D. 650H) - 1
Baker Concrete	20	Mobile Crane - 1, fork lift - 1
Hall Contracting	0	

### REMARKS / COMMENTS:

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Daily Report by Wayne E. Brugger



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 7/24/07	Day of Week: Tuesday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 69 <sup>0</sup> F to 75 <sup>0</sup> F, Cloudy – Heavy Rain @ 2:00 pm		Days Lost: 0.9 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <p>1. No work today. All excavation for the cooling tower is complete.</p> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <p>1. Completed placing forms for the north &amp; south walls of cells #4.</p> <p>2. Completed concrete placement of base slab of Cell #6.</p> <p>3. Completed concrete placement of Cell #4 walls.</p> <p>4. Continued construction of wall forms for Cells #5 and #7.</p> <p>5. Started placing reinforcing in the pump pit area.</p> <p>6. Continued general clean-up of the east end cells (cells #1, #2 &amp; #3) of the cooling tower substructure.</p> <p>7. Lost approximately one hour due to rain (0.1 day).</p> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <p>1. Fabricating the 30 inch intake pipe.</p>				
Look Ahead: Baker Concrete intends to place north and south walls of Cell #5 and floor of east stair tower on July 26, 2007.				

<b>Visitors:</b>

<b>Material Received:</b>
1. Form material for pump pit and cell walls #7 and #8.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	20	Mobile Crane – 1, fork lift – 1
Hall Contracting	0	

### REMARKS / COMMENTS:

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Daily Report by Wayne E. Brugger



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/23/07	<b>Day of Week:</b> Monday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 64 <sup>0</sup> F to 89 <sup>0</sup> F, PC to Clear		<b>Days Lost:</b> 0.8 - Total	
<b>Description of Activities:</b>				
Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System). <ol style="list-style-type: none"> <li>1. Completed stripping the forms from the north &amp; south walls of cell #3.</li> <li>2. Continued placing forms for the north &amp; south walls of cells #4 and #5.</li> <li>3. Completed placing reinforcing steel for the base slab of cell #6.</li> <li>4. Continued general clean-up of the east end cells (cells #1, #2 &amp; #3) of the cooling tower substructure.</li> </ol> Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System) <ol style="list-style-type: none"> <li>1. No work today.</li> </ol>				
Look Ahead: Baker Concrete intends to place cell #6 base slab and cell #4 walls concrete on July 24, 2007.				

<b>Visitors:</b>

<b>Material Received:</b>
1. Reinforcing steel for pump sump base slab.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	20	Mobile Crane – 1, fork lift – 1
Hall Contracting	0	

### REMARKS / COMMENTS:

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Daily Report by Wayne E. Brugger



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/20/07	<b>Day of Week:</b> Friday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 71 <sup>0</sup> F to 85 <sup>0</sup> F, Overcast. Heavy rains last night		<b>Days Lost:</b> 0.8 - Total	
<b>Description of Activities:</b>				
Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) 1. No work today. All excavation for the cooling tower is complete. Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System). 1. No activity today. Baker works 4-10's (Monday thru Thursday – 10 hours per day). Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System) 1. Working on miscellaneous items preparing the Flexifloat barges for installation of the pumps.				

<b>Visitors:</b>
1. None.

<b>Material Received:</b>
1. None.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) - 2, bulldozer (J.D. 650H) – 1
Baker Concrete	0	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

<b>REMARKS / COMMENTS:</b>
1.



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/18/07	<b>Day of Week:</b> Wednesday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 66 <sup>o</sup> F to 89 <sup>o</sup> F, PC to Clear		<b>Days Lost:</b> 0.8 - Total	
<b>Description of Activities:</b>				
Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System). <ol style="list-style-type: none"> <li>1. Completed stripping the forms from the north &amp; south walls of cell #2.</li> <li>2. Placed concrete for the north &amp; south walls of cell #3.</li> <li>3. Began placing forms for the north &amp; south walls of cell #5.</li> <li>4. Continued placing reinforcing steel for the base slab of cell #6.</li> <li>5. Baker sent four (4) of the reinforcing steel workers home at noon yesterday for the remainder of the week because the reinforcing steel for the pump pit base slab will not be delivered until next week. This is the next area available for reinforcing steel placement.</li> <li>6. Placed concrete for the base slab of cells #4 &amp; #7.</li> </ol> Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System) <ol style="list-style-type: none"> <li>1. Set two (2) additional sections of electrical switchgear on the barge deck.</li> </ol>				

<b>Visitors:</b>
<ol style="list-style-type: none"> <li>1. Wayne Brugger, Vice President, Stanley Consultants</li> </ol>

<b>Material Received:</b>
<ol style="list-style-type: none"> <li>1. Two (2) additional sections of electrical switchgear for the Temporary Barge System.</li> </ol>

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	20	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

<b>REMARKS / COMMENTS:</b>
<ol style="list-style-type: none"> <li>1. EKPC delivered two (2) additional sections of electrical switchgear to be set on the barges.</li> </ol>



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/16/07	<b>Day of Week:</b> Monday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers		<b>Weather:</b> 59 <sup>0</sup> F to 87 <sup>0</sup> F, PC to Clear		<b>Days Lost:</b> 0.8 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Continued stripping forms from the north, south and east walls of cell #1.</li> <li>2. Placed concrete for the north &amp; south walls of cell #2.</li> <li>3. Began placing forms for the north &amp; south walls of cell #3.</li> <li>4. Completed placing forms for the base slab of the pump pit and cell #8 (western most cell).</li> <li>5. Continued placing reinforcing steel for the base slab of cells #6 &amp; #7 and the walls of cell #3 &amp; #5.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Completed fabricating the electrical equipment structural steel support frame using 6” channel iron instead of the designed HSS 4x4x3/16 steel.</li> </ol>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. One section of electrical switchgear for the Temporary Barge System.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	20	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

<b>REMARKS / COMMENTS:</b>
1. EKPC set the first section of electrical switchgear on the barges.



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/17/07	<b>Day of Week:</b> Tuesday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 59 <sup>0</sup> F to 87 <sup>0</sup> F, PC to Clear		<b>Days Lost:</b> 0.8 - Total	
<b>Description of Activities:</b>				
Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System). <ol style="list-style-type: none"> <li>1. Completed stripping forms from the north, south and east walls of cell #1.</li> <li>2. Began stripping the forms from the north &amp; south walls of cell #2.</li> <li>3. Continued placing forms for the north &amp; south walls of cell #3.</li> <li>4. Continued placing reinforcing steel for the base slab of cell #6.</li> <li>5. Completed placing reinforcing steel for the base slab of cell #7.</li> </ol> Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System) <ol style="list-style-type: none"> <li>1. Set the electrical equipment structural steel support frame on the barges and welded to the barge deck.</li> </ol>				

<b>Visitors:</b>
<ol style="list-style-type: none"> <li>1. Ken O’Roark, Account Manager, Mueller Inc. – supplier of the barge pumps.</li> <li>2. Wayne Brugger, Vice President, Stanley Consultants</li> </ol>

<b>Material Received:</b>
<ol style="list-style-type: none"> <li>1. 2<sup>nd</sup> section of electrical switchgear for the Temporary Barge System.</li> <li>2. Cooling Tower pump pit reinforcing steel.</li> <li>3. Three (3) pumps that will be set on the barges.</li> </ol>

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	20	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

<b>REMARKS / COMMENTS:</b>
<ol style="list-style-type: none"> <li>1. EKPC set the 2<sup>nd</sup> section of electrical switchgear on the barges.</li> <li>2. EKPC received the 3 pumps to be set on the barges.</li> </ol>





## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 7/13/07 (REVISED)	Day of Week: Friday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 57°F to 81°F, PC to Clear		Days Lost: 0.8 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <p>Note: Baker has increased their work week to 5 days, 10 hours per day, and added additional carpenter crew to increase production.</p> <ol style="list-style-type: none"> <li>1. Began stripping forms from the north, south and east walls of cell #1.</li> <li>2. Placing forms for the north &amp; south walls of cell #2.</li> <li>3. Began placing forms for the base slab of the pump pit and cell #8 (western most cell).</li> <li>4. Continued placing reinforcing steel for the base slab of cells #4 &amp; #7 and the walls of cell #3 &amp; #5.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Completed fabrication of the pump support structural steel.</li> <li>2. Began fabricating the electrical equipment structural steel support frame using 6” channel iron instead of the designed HSS 4x4x3/16 steel.</li> </ol>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. None.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	35	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

<b>REMARKS / COMMENTS:</b>
1.



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 7/13/07	Day of Week: Friday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 57 <sup>0</sup> F to 81 <sup>0</sup> F, PC to Clear		Days Lost: 0.8 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <p>Note: Baker has increased their work week to 5 days, 10 hours per day, and added additional carpenter crew to increase production.</p> <ol style="list-style-type: none"> <li>1. Began stripping forms from the north, south and east walls of cell #1.</li> <li>2. Placing forms for the north &amp; south walls of cell #2.</li> <li>3. Began placing forms for the base slab of the pump pit and cell #8 (western most cell).</li> <li>4. Continued placing reinforcing steel for the base slab of cells #4 &amp; #7 and the walls of cell #3 &amp; #5.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)</p> <ol style="list-style-type: none"> <li>1. Completed fabrication of the pump support structural steel.</li> <li>2. Began fabricating the electrical equipment structural steel support frame using 4” channel iron instead of the designed HSS 4x4x3/16 steel.</li> </ol>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. None.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	35	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

### REMARKS / COMMENTS:

1.
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## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/12/07	<b>Day of Week:</b> Thursday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 57 <sup>0</sup> F to 86 <sup>0</sup> F, PC to Clear		<b>Days Lost:</b> 0.8 - Total	
<b>Description of Activities:</b>				
Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System). <ol style="list-style-type: none"> <li>1. Placed concrete for the north, south and east walls of cell #1 (the eastern most cell of the cooling tower).</li> <li>2. Began placing forms for the north wall of cell #2.</li> <li>3. Continued placing reinforcing steel for the base slab of cells #6 &amp; #7 and the walls of cell #3.</li> </ol> Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System) <ol style="list-style-type: none"> <li>1. Continued fabrication of the pump support structural steel.</li> <li>2. Continued fabrication of the new barge electric pumps' discharge piping.</li> </ol>				

<b>Visitors:</b>
1. Kevin Voss – Stanley Consultants

<b>Material Received:</b>
1. None.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	20	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

<b>REMARKS / COMMENTS:</b>
1.



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/11/07	<b>Day of Week:</b> Wednesday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 71 <sup>0</sup> F to 91 <sup>0</sup> F, PC to Overcast, light to heavy rains last night and from 6:00 am till 10:30 am and a brief shower at 12:45 pm			<b>Days Lost:</b> 0.8 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System).</p> <ol style="list-style-type: none"> <li>1. Placed concrete for the base slab of cells #2 &amp; #5. Concrete placement scheduled for 6:00 am was delayed until 10:30 am because of the morning rain.</li> <li>2. Continued placing forms for the north, south and east walls of cell #1.</li> <li>3. Complete placing reinforcing steel for base slab of cells #2 &amp; #5 and for the walls of cell #1.</li> <li>4. Continued placing reinforcing steel for the base slab of cells #6 &amp; #7. This work was discontinued at noon.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)</p> <ol style="list-style-type: none"> <li>1. Continued fabrication of the pump support structural steel.</li> <li>2. Continued fabrication of the new barge electric pumps' discharge piping.</li> </ol>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. None.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	25	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

<b>REMARKS / COMMENTS:</b>
1.



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 7/10/07	<b>Day of Week:</b> Tuesday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 76 <sup>0</sup> F to 93 <sup>0</sup> F, PC to Overcast, Brief light to heavy rains at 12:45 pm, 2:15 pm & 4:00 pm. No time lost to rain.		<b>Days Lost:</b> 0.8 - Total	
<b>Description of Activities:</b>				
Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) <ol style="list-style-type: none"> <li>1. No work today. All excavation for the cooling tower is complete.</li> </ol> Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System). <ol style="list-style-type: none"> <li>1. Placed concrete for the mud slab at cell #8 and the pump pit.</li> <li>2. Continued placing forms for the north and south walls of cells #1 &amp; #3 and the east wall of cell #1.</li> <li>3. Complete placing reinforcing steel for base slab of cell #2 &amp; #5 and for the walls of cells #1 &amp; #3.</li> <li>4. Began placing reinforcing steel for the base slab of cells #4, #6 &amp; #7.</li> </ol> Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake) <ol style="list-style-type: none"> <li>1. Continued fabrication of the pump support structural steel.</li> <li>2. Continued fabrication of the new barge electric pumps' discharge piping.</li> </ol>				

<b>Visitors:</b>
1. None

<b>Material Received:</b>
1. None.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	20	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

<b>REMARKS / COMMENTS:</b>
1.



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 7/03/07	Day of Week: Tuesday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers	Weather: 65 <sup>0</sup> F to 89 <sup>0</sup> F, PC to Overcast.		Days Lost: 0.4 - Total	
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. Completed excavation for the cooling tower in the vicinity of the pump basin.</li> <li>2. Excavated material is being disposed on the site east of the existing coal pile runoff basin.</li> <li>3. Placed, spread and compacted structural backfill (bottom ash) for the western part of cooling tower Cell #8 and the pump pit base slabs.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)</p> <ol style="list-style-type: none"> <li>1. Placed concrete for cooling tower Cells #1 &amp; #3 base slab.</li> <li>2. Began placing forms for the east &amp; west ends of cooling tower Cell #7 base slab.</li> <li>3. Installed waterstop for the walls of cooling tower Cell #3.</li> <li>4. Completed placing reinforcing steel for cooling tower Cell #3. Began placing reinforcing steel for cooling tower Cell #5 base slab.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)</p> <ol style="list-style-type: none"> <li>1. Began fabrication of additional spuds for the flexifloat barges.</li> <li>2. Preparing the flexifloat barges for the installation of the pump support structural steel.</li> </ol>				

<b>Visitors:</b>
<ol style="list-style-type: none"> <li>1. Larry Reynolds, Baker Concrete</li> <li>2. Donnie Moore, Ready Mix Concrete</li> </ol>

<b>Material Received:</b>
<ol style="list-style-type: none"> <li>1. None</li> </ol>

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	7	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1
Baker Concrete	22	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

### REMARKS / COMMENTS:

<ol style="list-style-type: none"> <li>1. Found a “cave” in the vicinity of the NW corner of the cooling tower pump pit. It was opened up with an excavator and filled with a mixture of rock, clay and bottom ash. The “cave” appeared to be about 5 – 8 cy in size.</li> <li>2. Adam Smith, FMSM Engineers (materials testing company retained by EKPC), made 4 sets (4 test cylinders each) of samples of the 4000 psi concrete with silica fume placed for Cells #1 &amp; #3 base slab.</li> <li>3. Ready Mix Concrete, concrete supplier, made 2 set of 3 test cylinders each of the 4000 psi concrete with silica fume placed for Cell #1 base slab and 1 set of 3 test cylinders for Cell #3 base slab.</li> </ol>
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## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 7/02/07 (REVISED)	Day of Week: Monday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 67 <sup>0</sup> F to 89 <sup>0</sup> F, Clear to Overcast.		Days Lost: 0.4 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. Continued excavation for the cooling tower in the vicinity of the pump basin.</li> <li>2. Brought in an excavator with an air drill to drill and dynamite the bedrock encountered near the bottom of the pump pit excavation.</li> <li>3. Excavated material is being disposed on the site east of the existing coal pile runoff basin.</li> <li>4. Relocated silt fence along the south side of the cooling tower in the vicinity of Cells #3 to the pump basin to provide crane access south of the cooling tower.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)</p> <ol style="list-style-type: none"> <li>1. Continued placing forms for the north &amp; south walls of Cell #7 base slab.</li> <li>2. Installed waterstop at the expansion joints of Cell # 3 and for the walls of Cells #1 &amp; #3.</li> <li>3. Completed placing reinforcing steel for the base slab of Cell #1. Began placing reinforcing steel for the base slab of Cell #3.</li> <li>4. Placed, spread and compacted structural backfill (bottom ash) for the eastern part of CT Cell #8 base slab.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)</p> <ol style="list-style-type: none"> <li>1. Began fabrication of additional spuds for the flexifloat barges.</li> </ol>				

<b>Visitors:</b>
1. Larry Reynolds, Baker Concrete

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	8	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) – 1, excavator with air drill – 1
Baker Concrete	17	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

<b>REMARKS / COMMENTS:</b>
1. Baker originally scheduled to not work on July 4, 5 & 6 is now planning to work on July 5 & 6.



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 6/29/07	<b>Day of Week:</b> Friday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers		<b>Weather:</b> 65 <sup>0</sup> F to 87 <sup>0</sup> F, Clear to PC		<b>Days Lost:</b> 0.4 - Total

**Description of Activities:**

- Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)
1. No activity today. Reynolds works 4-10's (Monday thru Thursday – 10 hours per day).
- Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)
1. Although Barker only works 4-10's (Monday thru Thursday – 10 hours per day), they did have a crew of 5 reinforcing steel workers placing re-bar for the base slab of Cell #1 to get the area ready for concrete placement next Tuesday, July 3.
- Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)
1. Completed installation of spud wells and spuds on the flexifloat barges.
  2. Assembled 2 long flexifloat barges plus a rake nose section for a walkway.

**Visitors:**

1. Larry Shell, Daryl Burt & Kevin Voss, Stanley Consultants

**Material Received:**

1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) - 1
Baker Concrete	6	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Excavator - 1

**REMARKS / COMMENTS:**

- 1.





## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 6/28/07	<b>Day of Week:</b> Thursday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 70 <sup>0</sup> F to 91 <sup>0</sup> F, Clear to Overcast. Heavy rains during the early morning (2 am) did not delay work progress.		<b>Days Lost:</b> 0.4 - Total	
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. Continued excavation for the cooling tower basin in the vicinity of the pump basin. Encounter bedrock near the bottom of the excavation.</li> <li>2. Excavated material is being disposed on the site east of the existing coal pile runoff basin.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)</p> <ol style="list-style-type: none"> <li>1. Continued placing forms for the east &amp; west ends of Cell #3 &amp; #5 base slab and for the west end of Cell #1.</li> <li>2. Installed waterstop at the expansion joints.</li> <li>3. Continued placing reinforcing steel for the base slab of Cell #1. Only one reinforcing steel worker (foreman) and 2 carpenters are working on installation of the reinforcing steel.</li> <li>4. Placed concrete for the mud slab of Cell #7.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)</p> <ol style="list-style-type: none"> <li>1. Installing spud wells and spuds on the flexifloat barges.</li> <li>2. EKPC completed installation of wiring for the 5 pumps on the raft.</li> </ol>				

<b>Visitors:</b>
1. Larry Shell, Daryl Burt & Kevin Voss, Stanley Consultants

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	5	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) - 1
Baker Concrete	17	Mobile Crane – 1, fork lift – 1
Hall Contracting	6	Excavator – 1

### REMARKS / COMMENTS:

1. Lack of reinforcing steel workers is slowing progress of the project. Additional workers are now scheduled to be on the project tomorrow. Baker plans to have the reinforcing steel workers on tomorrow, Friday, to make up for the slow progress.
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## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 6/27/07	<b>Day of Week:</b> Wednesday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers	<b>Weather:</b> 66 <sup>0</sup> F to 91 <sup>0</sup> F, Clear to Overcast with a 15 min rain at 4:00 pm.		<b>Days Lost:</b> 0.4 - Total	
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. Continued excavation for the cooling tower basin in the vicinity of Cell #8 and the pump basin. Excavated material is being disposed on the site east of the existing coal pile runoff basin.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)</p> <ol style="list-style-type: none"> <li>1. Placed forms for the north &amp; south side of Cell #6 base slab. Continued placing forms for the east &amp; west ends of Cell #3 &amp; #5 base slab.</li> <li>2. Continued placing reinforcing steel for the base slab of Cell #1.</li> <li>3. Placed &amp; compacted bottom ash fill for the mud slab of Cell #7.</li> <li>4. Baker sent their carpenters home at 2:30 pm because no work areas are available.</li> <li>5. Two reinforcing steel workers did not show up for work today.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)</p> <ol style="list-style-type: none"> <li>1. Re-worked the assembly of the sections of flexifloat barges on the lake to provide additional sections of barge were the electrical equipment is to be installed.</li> <li>2. Completed installing 5 - 8” rubber pump hose from the temporary pipe header adjacent to the west side of Unit 2 Intake structure onto the raft with the 5 electric pumps.</li> <li>3. EKPC began installation of wiring for the 5 pumps on the raft.</li> </ol>				

<b>Visitors:</b>
<ol style="list-style-type: none"> <li>1. Jim Williams, Field Operations Manager, J V Resources Inc (A Safety/Personnel Management Company)</li> <li>2. Kurt J. Schaefer, Associate, FMSM Engineers</li> </ol>

<b>Material Received:</b>
<ol style="list-style-type: none"> <li>1. None</li> </ol>

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	5	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) - 1
Baker Concrete	17	Mobile Crane – 1, fork lift – 1
Hall Contracting	10	Excavator – 1

### REMARKS / COMMENTS:

<ol style="list-style-type: none"> <li>1. Lack of reinforcing steel workers is slowing progress of the project. Additional workers are scheduled to be on the project next Monday.</li> </ol>
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## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 6/26/07	Day of Week: Tuesday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers	Weather: 66 <sup>0</sup> F to 91 <sup>0</sup> F, Clear to PC		Days Lost: 0.4 - Total	
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. Continued excavation for the cooling tower basin in the vicinity of Cell #8 and the pump basin. Excavated material is being disposed on the site east of the existing coal pile runoff basin.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)</p> <ol style="list-style-type: none"> <li>1. Placed forms for the north &amp; south side of Cell #4 &amp; 5 base slab. Began placing forms for the east &amp; west ends of Cell #3 base slab.</li> <li>2. Continued placing reinforcing steel for the base slab of Cell #1.</li> <li>3. Placed a concrete “mud slab” for Cell #6. Ready Mix delivered one 10cy 4000 psi mix for the mud slab and Baker added silica fume to the mix at the site. Yesterday’s trial mix had ice added for temperature control. The concrete today did NOT have ice. Placing temperature was 89° F. FMSM made a set of 4 test cylinders.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)</p> <ol style="list-style-type: none"> <li>1. Began installing 8” rubber flexible piping from the temporary pipe header adjacent to the west side of Unit 2 Intake structure down to the edge of the lake in preparation for installation of a temporary raft with 5 electric pumps.</li> <li>2. Completed assembly of the sections of flexifloat barges on the lake.</li> <li>3. Installed prefabricated sections of 8” discharge steel pipe on the 5 electric pumps on the raft.</li> <li>4. Installed 5 – 8” rubber pump hose from the temporary pipe header at Unit 2 to the lake edge for connection to the 8” steel pipes on the raft.</li> <li>5. Moved the raft with the 5 electric pumps into position just west of Unit 2 Intake structure.</li> </ol>				

<b>Visitors:</b>
1. None.

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	6	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) - 1
Baker Concrete	19	Mobile Crane – 1, fork lift – 1
Hall Contracting	10	Excavator – 1

### REMARKS / COMMENTS:

<ol style="list-style-type: none"> <li>1. Nathan Wagner, FMSM Engineers (materials testing company retained by EKPC), sampled the 4000 psi concrete with silica fume added which was placed for Cell #6 mud slab.</li> </ol>
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## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 6/25/07	<b>Day of Week:</b> Monday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers		<b>Weather:</b> 62 <sup>0</sup> F to 89 <sup>0</sup> F, Clear to Overcast. A very heavy brief rain at 5:30 pm did not delay construction activities		<b>Days Lost:</b> 0.4 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. Excavation for the cooling tower basin continued in the vicinity of CT Cell #7 &amp; 8. Excavated material is being disposed on the site east of the existing coal pile runoff basin.</li> <li>2. Installed silt fence along the south end of the cooling tower construction area.</li> <li>3. Placed crushed rock and bottom ash on the graded area south of the cooling tower for crane and concrete truck access.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)</p> <ol style="list-style-type: none"> <li>1. Placed forms for the north &amp; south side of Cell #2 &amp; 3 base slab. Continued placing forms for the west side of Cell #1 base slab.</li> <li>2. Began placing reinforcing steel for the base slab of Cell #1.</li> <li>3. Placed a concrete “mud slab” for Cell #5.</li> <li>4. The concrete supplier, Ready Mix, delivered a 3 cy 4000 psi trial mix to the site in the late afternoon. Baker added silica fume to the trial mix at the site. FMSM made a set of 6 test cylinders.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)</p> <ol style="list-style-type: none"> <li>1. Grading sloped embankment from lake edge up to temporary pipe header adjacent to the west side of Unit 2 Intake structure.</li> <li>2. Began assembly of the sections of flexifloat barges on the lake.</li> <li>3. Set 5 pumps and motors on the temporary raft.</li> </ol>				

<b>Visitors:</b>
1. None.

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	6	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) - 1
Baker Concrete	19	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Excavator – 1

### REMARKS / COMMENTS:

1. Nathan Wagner, FMSM Engineers (materials testing company retained by EKPC), sampled the 2500 psi concrete placed for CT Cell #5 mud slab.
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## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 6/22/07	<b>Day of Week:</b> Friday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers		<b>Weather:</b> 55 <sup>0</sup> F to 77 <sup>0</sup> F, Partly Cloudy to overcast		<b>Days Lost:</b> 0.4 - Total
<b>Description of Activities:</b>				
Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) 1. No activity today. Reynolds works 4-10's (Monday thru Thursday – 10 hours per day). Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System) 1. No activity today. Baker works 4-10's (Monday thru Thursday – 10 hours per day). Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake) 1. Completed moving flexifloat barge sections down to the temporary pump area near Unit 2 Intake and setting on the water. 2. Set a "raft" on the lake to support 5 temporary electric pumps.				

<b>Visitors:</b>
1. None.

<b>Material Received:</b>
1. None

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	0	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) - 1
Baker Concrete	0	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Excavator - 1

<b>REMARKS / COMMENTS:</b>
1.



## DAILY PROJECT REPORT

	Project No: 20170.03	Date: 6/21/07	Day of Week: Thursday	East Kentucky Power Cooperative
Project Name: John S. Cooper Station – Cooling Towers		Weather: 59 <sup>0</sup> F to 91 <sup>0</sup> F, Clear		Days Lost: 0.4 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. Excavation for the cooling tower basin continued in the vicinity of CT Cell #7. Leveled the area south of the cooling tower for crane access. Excavated material is being disposed on the site east of the existing coal pile runoff basin.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)</p> <ol style="list-style-type: none"> <li>1. Placed, spread and compacted structural backfill (bottom ash) for the base slab of CT Cells #5 &amp; #6.</li> <li>2. Placed forms for the north, east &amp; south side of Cell #1 base slab. Began placing forms for the west side of Cell #1 base slab.</li> <li>3. Placed two (2) layers of polyethylene sheeting on the mud slab of Cells #1 &amp; #2.</li> <li>4. Placed a concrete “mud slab” for Cell #3 &amp; #4.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)</p> <ol style="list-style-type: none"> <li>1. Began moving flexifloat barge sections down to the temporary pump area near Unit 2 Intake. Four (4) large sections were set in the water.</li> </ol>				

<b>Visitors:</b>
1. None.

<b>Material Received:</b>
<ol style="list-style-type: none"> <li>1. Yesterday, Baker received expansion joint material, polyethylene sheeting, waterstop and form braces.</li> <li>2. Today, Hall received additional flexifloat barge sections – 4 small &amp; 9 large sections.</li> </ol>

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	5	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) - 1
Baker Concrete	18	Mobile Crane – 1, fork lift – 1
Hall Contracting	5	Mobile Crane – 1

### REMARKS / COMMENTS:

1. H. A. Mann was on the site from 6:45 am until 6:00 pm.
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## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 6/20/07	<b>Day of Week:</b> Wednesday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers		<b>Weather:</b> 65 <sup>0</sup> F to 80 <sup>0</sup> F, Clear to PC		<b>Days Lost:</b> 0.4 - Total

**Description of Activities:**

Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)

1. Excavation for the cooling tower basin continued in the vicinity of CT Cells #6 & #7.  
Excavated material is being disposed on the site east of the existing coal pile runoff basin.

Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)

1. Placed, spread and compacted structural backfill (bottom ash) for the base slab of Cooling Tower cells #3 & #4.
2. Placed a concrete “mud slab” for cell #2.

Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)

1. Completed installation of four (4) 8” nipples on the 36” steel pipe header for the temporary cooling water system to existing Unit 1 cooling pipe.
2. Stripped forms from the thrust block under 36” vertical 90° elbow to Unit 1 overhead piping.

**Visitors:**

1. None.

**Material Received:**

1. None.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	5	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) - 1
Baker Concrete	14	Mobile Crane – 1, fork lift – 1,
Hall Contracting	5	Welder

**REMARKS / COMMENTS:**

1. H. A. Mann was on the site from 6:30 am until 6:00 pm.



## DAILY PROJECT REPORT

	<b>Project No:</b> 20170.03	<b>Date:</b> 6/19/07	<b>Day of Week:</b> Tuesday	East Kentucky Power Cooperative
<b>Project Name:</b> John S. Cooper Station – Cooling Towers		<b>Weather:</b> 65 <sup>0</sup> F to 80 <sup>0</sup> F, Overcast with light to heavy intermittent rain throughout the day. Work shutdown at 2:00 pm because of rain		<b>Days Lost:</b> 0.4 - Total
<b>Description of Activities:</b>				
<p>Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe)</p> <ol style="list-style-type: none"> <li>1. Excavation for the cooling tower basin began last Thursday, June 14. Excavation started at the east end of the basin and is proceeding to the west. Excavated material is being disposed on site east of the existing coal pile runoff basin.</li> </ol> <p>Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System)</p> <ol style="list-style-type: none"> <li>1. Placed, spread and compacted structural backfill (bottom ash) for the base slab of Cooling Tower cells #1 &amp; #2.</li> <li>2. Placed a concrete “mud slab” for cell #1.</li> </ol> <p>Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake)</p> <ol style="list-style-type: none"> <li>1. Fabricating 36” steel pipe for from temporary cooling water system header to existing Unit 1 cooling pipe.</li> <li>2. Placed concrete for thrust block under 36” vertical 90° elbow to Unit 1 overhead piping.</li> </ol>				

<b>Visitors:</b>
1. None.

<b>Material Received:</b>
1. Baker – 1 truck load of concrete forms and form plywood.

Work Force		Equipment On-Site
Contractor	Quantity	Description & Quantity
Reynolds Inliner, LLC	5	Excavator (Komatsu PC 1250) - 1, dump truck (Volvo A40D) – 2, bulldozer (J.D. 650H) - 1
Baker Concrete	8	Mobile Crane – 1, fork lift – 1,
Hall Contracting	5	Welder

### REMARKS / COMMENTS:

<ol style="list-style-type: none"> <li>1. H. A. Mann arrived at the site @ noon.</li> <li>2. Construction activities were suspended at 2:00 pm because of the heavy rain.</li> </ol>
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## WEEKLY PROJECT UPDATE

**Project Name:** EKPC - Cooper Station - Circulating Water System

**Week Ending:** Sept 8, 2007

**Prepared By:** H. A. Mann

**Project Number:** 20170.03

### **Last Week's Activities:**

Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) – No activity this week. All excavation for the Cooling Tower is complete.

Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System) worked 6-8 hour days this week. They worked on Saturday to complete the forms at the west end of Cell#8. Work this week was on the following items:

1. Completed placing reinforcing steel for the north, south and west walls of Cell #8 (the western most cell).
2. Began placing forms for the east end of the pump pit and the west walls of Cell #8.
3. Placing reinforcing steel, forms and concrete for 16 columns in Cell #8. This completes 39 of the 99 columns in Cell #8.
4. Began placing forms for the top slab of the pump pit.

Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)

1. Completed connecting tow (2) of the four (4) 24" dia HDPE discharge pipes at the pump barge and at the header on shore.

Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)

1. Completed assembly/connecting the switchgear on the barge.
2. Completed wiring the pumps and pump control valves on the pump barge.
3. Completed installation of wiring between the existing power plant and the pump barge. Tested the cable between the power plant switchgear and the pump barge switchgear on Saturday. One phase of one circuit had a slight micro-amp leakage current. The other circuit tests were acceptable.

Adams Cooling Tower

1. Delivered cooling tower distribution headers to the site.

Southern Fencing

1. Began installation of the security fence around the cooling tower components' storage area at the east side of the power plant site.

### **Work Items for Coming Week:**

Baker will continue placing concrete for more columns in Cell #8, and place concrete for the walls at the east end of the pump pit and the west end Cell #8.

Hall Contracting will complete installation of the two (2) remaining discharge pipes between the pumps and the shore header.

Power-Tel Electric will start-up the pumps on the pump barge.

**Issues to be aware of:** None.

**Information Required:** None.

**Critical Issues:** None.



## WEEKLY PROJECT UPDATE

**Project Name:** EKPC - Cooper Station - Circulating Water System

**Week Ending:** Sept 1, 2007

**Prepared By:** H. A. Mann

**Project Number:** 20170.03

### Last Week's Activities:

Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) – No activity this week. All excavation for the Cooling Tower is complete.

Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System) worked 5-8 hour days this week on the following items:

1. Stripped forms from the walls of the pump pit.
2. Continued placing reinforcing steel for the north, south and west walls of Cell #8 (the western most cell).
3. Placing reinforcing steel and forms for the columns in Cell #8.
4. Placed concrete for 16 columns in Cell #8. This completes 23 of the 99 columns in Cell #8.

Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)

1. Installed roof vents and louvers and wall louvers in the building on the pump barge.
2. Relocated the spud from in front of the building's overhead door.
3. Began connecting the four (4) 24" dia HDPE discharge pipes to the header on shore.

Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)

1. Continued assembly/connecting the switchgear on the barge.
2. Installing conduit and cable tray for power and control wiring inside the switchgear building and for the pumps on the pump barge.
3. Began pulling wire in the conduit along the east side of Unit #2.

Adams Cooling Tower

1. Continued delivery of components for cooling tower.

### Work Items for Coming Week:

Baker will begin placing reinforcing steel and forms for the deck of the pump pit, continue placing concrete for more columns in Cell #8, and place forms and reinforcing steel for the north, south and west walls of Cell #8.

Hall Contracting will complete installation of the discharge pipe between the pumps and the shore header.

Power-Tel Electric will complete installation of cable tray and conduit inside the pump barge building and on the pump barge, and begin pulling wire from Unit #2 to the pump barge.

**Issues to be aware of:** None.

**Information Required:** None.

**Critical Issues:** None.



## WEEKLY PROJECT UPDATE

**Project Name:** EKPC - Cooper Station - Circulating Water System

**Week Ending:** Aug 25, 2007

**Prepared By:** H. A. Mann

**Project Number:** 20170.03

### **Last Week's Activities:**

Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) – No activity this week. All excavation for the Cooling Tower is complete.

Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System) worked 5-8 hour days this week on the following items:

1. Completed placing reinforcing steel, forms and concrete for the walls of the pump pit.
2. Began placing reinforcing steel for the north and south walls of Cell #8 (the western most cell).
3. Placing reinforcing steel and forms for the columns in Cell #8.
4. Placed concrete for seven (7) columns in Cell #8.

Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System)

1. Installed the pump drop pipes, 4 pumps, and 3 pump motors on pump barge.
2. Installed the pump discharge reducers and control valves on the pumps.
3. Installed the four (4) 24" dia HDPE discharge pipes in the lake and set in position to connect to the header on shore.

Power-Tel Electric (A Division of Hall Contracting of Kentucky, Inc)

1. Began assembly/connecting the switchgear on the barge.
2. Installing conduit for power and control wiring inside the switchgear building and for the pumps on the pump barge.
3. Installing conduit on the east side of Intake No. 2's access walkway.
4. Began installing cable tray in the pump barge building and on the barge deck for the pumps.

Adams Cooling Tower

1. Continued delivery of components for cooling tower.

### **Work Items for Coming Week:**

Baker will continue placing reinforcing steel and forms for the remaining sections of the pump pit, place concrete for some of the columns in Cell #8, and place forms and reinforcing steel for the north and south walls of Cell #8.

Hall Contracting will complete installation of the pumps, valves and associated items and concrete to the discharge pipe which go to the shore header.

Power-Tel Electric will continue installation of cable tray and conduit inside the pump barge building and on the pump barge.

### **Issues to be aware of:**

Design of the drain piping from the cooling tower's perimeter drain system and sump drains will be completed next week.

**Information Required:** None

**Critical Issues:** Need cable tray for the 5 kV cable from Unit 2 to the south end of the power plant.



## WEEKLY PROJECT UPDATE

**Project Name:** EKPC - Cooper Station - Circulating Water System

**Week Ending:** July 28, 2007

**Prepared By:** W. E. Brugger

**Project Number:** 20170.03

### **Last Week's Activities:**

Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) – No activity this week. All excavation for the Cooling Tower is complete.

Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System) worked 4 -10 hour days this week on the following items:

1. Placed concrete for the base slab of cooling tower cell # 6.
2. Placing forms for the north and south walls of cell #5 6 & #7.
3. Placed concrete for the north and south walls of cells #4 & 5.
4. Placing reinforcing steel for the base slab of east stair tower.
5. Placing reinforcing steel for the base slab of pump pit.
6. Placed concrete for the base slab of east stair tower.

Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System) No activity this week.

1. Installing guide on spud piles and fabricating the 30 inch intake pipe.

### **Work Items for Coming Week:**

Baker will continue placing reinforcing steel and forms for the base slab of the pump pit. and place concrete for the base slab of pump pit and walls for Cells #6 and #7.

Hall Contracting will continue to fabricate drop pipes on the pump support system as precautions against pump vortex and to draw water from a lower elevation.

### **Issues to be aware of:**

Cooling Tower cells #1, #2, #3, and #4 (eastern end of the cooling tower) should be ready for installation of the cooling tower structure by August 4, 2007 pending receipt of concrete tests indicating adequate strength and completion of drain pipe and backfill by Reynolds

**Information Required:** None

**Critical Issues:** Baker lost approximately 2.5 days of progress on placing reinforcing steel because material was not available for the pump pit. The pump pit base slab reinforcing steel was not delivered until Thursday, July 19.



## WEEKLY PROJECT UPDATE

**Project Name:** EKPC - Cooper Station - Circulating Water System

**Week Ending:** July 21, 2007

**Prepared By:** H. A. Mann

**Project Number:** 20170.03

### **Last Week's Activities:**

Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) -- No activity this week. All excavation for the Cooling Tower is complete.

Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System) worked 4 -10 hour days this week on the following items:

1. Placed concrete for the base slab of cooling tower cells # 4 & #7
2. Placed concrete for the north and south walls of cells #2 & #3.
3. Placing reinforcing steel for the base slab of cell #6.
4. Placing forms for the north and south walls of cell #4 & #5.

Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System) worked 5 – 8 hour days this week on the following items:

1. Set the pump structural steel and electrical equipment supports on the Flexifloat barges.
2. Set the electrical General Service #1 & #2 Unit Sub #3 transformers and switchgear on the Flexifloat barges.

### **Work Items for Coming Week:**

Baker will continue placing reinforcing steel and forms for the base slabs and walls of the Cooling Tower cells and pump pit. Place concrete for the base slab of Cell #6, and walls for cells #4 & #5.

Hall Contracting will install drop pipes on the pump support system as precautions against pump vortex.

### **Issues to be aware of:**

Cooling Tower cells #1, #2, #3, #4 & #5 (eastern end of the cooling tower) should be ready for installation of the cooling tower structure by August 6.

**Information Required:** None

**Critical Issues:** Baker lost approximately 2.5 days of progress on placing reinforcing steel because material for the pump pit was not available. The pump pit base slab reinforcing steel was not delivered until Thursday, July 19.



## WEEKLY PROJECT UPDATE

**Project Name:** EKPC - Cooper Station - Circulating Water System

**Week Ending:** July 14, 2007

**Prepared By:** H. A. Mann

**Project Number:** 20170.03

### **Last Week's Activities:**

Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) – No activity this week. All excavation for the Cooling Tower is complete.

Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System) increased their work week to 5 -10 hour days and brought in additional carpenters on Friday to increase production. They worked on the following items this week:

1. Placed concrete for the mud slab of cell #8 and the pump pit.
2. Placed concrete for the base slab of cooling tower cells # 2 & #5
3. Placed concrete for the north, south and east walls of cell #1 (the east end of the cooling tower).
4. Placing reinforcing steel for the base slab of cell #4, #6 & #7.
5. Placing forms for the base slab of cell #8 and the pump pit.
6. Placing forms for the north and south walls of cell #2.

Hall Contracting of Kentucky, Inc. (Contract BO – Temporary Piping and Barge System) completed fabrication of the structural steel that will support the pumps on the Flexifloat barges. Began fabrication of the electrical equipment support structural steel. Began fabrication of pump discharge piping – welded flanges to reducers.

### **Work Items for Coming Week:**

Baker will continue placing reinforcing steel and forms for the base slabs and walls of the Cooling Tower. Place concrete for the base slab of Cells #4 & #7, and walls for cells #2, #3 & #4.

Hall Contracting of will continued fabrication of the structural steel that will support the electrical equipment on the Flexifloat barges on Lake Cumberland.

### **Issues to be aware of:**

Cooling Tower cells #1, #2 & #3 (eastern end of the cooling tower) may be ready for installation of the cooling tower structure by August 6.

**Information Required:** None

**Critical Issues:** None



## WEEKLY PROJECT UPDATE

**Project Name:** EKPC - Cooper Station - Circulating Water System

**Week Ending:** June 30, 2007

**Prepared By:** H. A. Mann

**Project Number:** 20170.03

### **Last Week's Activities:**

Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) completed excavation for the first 8 cells of the cooling tower (CT). Began excavation in the pump pit area and encountered isolated bedrock "domes" near the bottom of the excavation. Blasting or mechanical means (backhoe mounted jackhammer) may be needed to remove the rock.

Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System) placed engineered backfill (bottom ash) and a mud slab for CT cells #5, 6 & 7. Placed forms for the basin slab of cells #2, #3, #4, #5 & #6. Began placing reinforcing steel for the basin slab of cells #1 & #2. Baker worked the reinforcing steel crew on Friday (a normal day off) to catch up the work and insure Cell #1 base slab will be ready for concrete next Tuesday.

Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake) assembled 17 sections of a Flexifloat barge on Lake Cumberland. Installed 4 spud wells and spuds. Set 5 electric pumps on an EKPC "raft" and installed discharge piping between the pumps and the temporary pipe header. Assembled 2 barges and a rake nose barge for a walkway between the pump barges and shore.

EKPC wired the 5 electric pumps on the "raft."

### **Work Items for Coming Week:**

Reynolds will complete excavation for the pump pit at the west end of the cooling tower basin.

Baker will continue placing engineered backfill, mud slab and forms for the CT base slab working in the vicinity of Cell #8 and the pump pit. Complete placing reinforcing steel and place concrete for the base slab Cells #1 & #3. Begin placing wall forms for Cell #1 and begin placing reinforcing steel for CT base slab #2.

Hall Contracting of will complete assembly of the Flexifloat barge on Lake Cumberland.

### **Issues to be aware of:**

Excavation for the CT pump pit at the west end will require dynamiting to remove domes of bedrock.

There will be no work on July 4 next week.

### **Information Required:**

### **Critical Issues:**

Concrete test cylinders made on the 4000 psi concrete with silica fume will be tested on Monday, July 2, (7 day break) and must reach sufficient strength before the first CT base slab can be poured.



## WEEKLY PROJECT UPDATE

**Project Name:** EKPC - Cooper Station - Circulating Water System

**Week Ending:** June 23, 2997

**Prepared By:** H. A. Mann

**Project Number:** 20170.03

### **Last Week's Activities:**

Reynolds Inliner, LLC (Contract F223 - Circulating Water Pipe) mobilized on June 13 and began excavation for the cooling tower basin at the east end. Excavation has been completed for the first 7 cells.

Baker Concrete (Contract F261 – Units 1 and 2 Circulating Water System) mobilized this past week. Placed engineered backfill (bottom ash) and a mud slab for CT cells #1, 2, 3 & 4. Placed forms for the basin slab of cell #1.

Hall Contracting of Kentucky, Inc. (Temporary cooling water system at the lake) delivered 13 sections of a Flexifloat barge and began setting on Lake Cumberland.

### **Work Items for Coming Week:**

Reynolds will continue excavation at the west end of the cooling tower basin.

Baker will continue placing engineered backfill, mud slab and forms for the CT base slab working from east to west. Begin placing reinforcing steel and concrete for the base slab working on CT cells #1 & 3.

Hall Contracting of will continue assembly of the Flexifloat barge on Lake Cumberland.

### **Issues to be aware of:**

Excavation for the CT basin at the west end will block the upper access road to the Unit 2 intake structure.

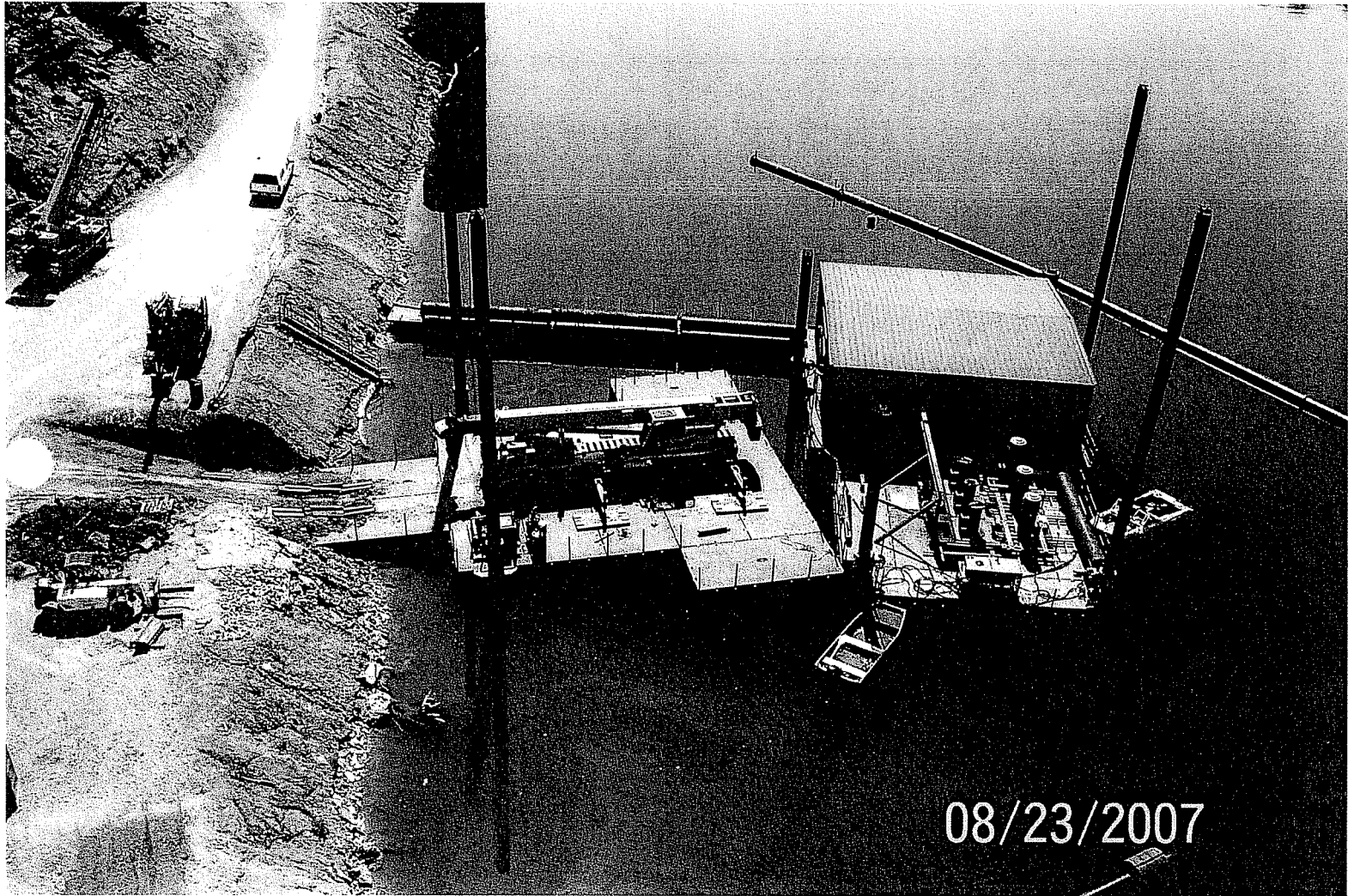
### **Information Required:**

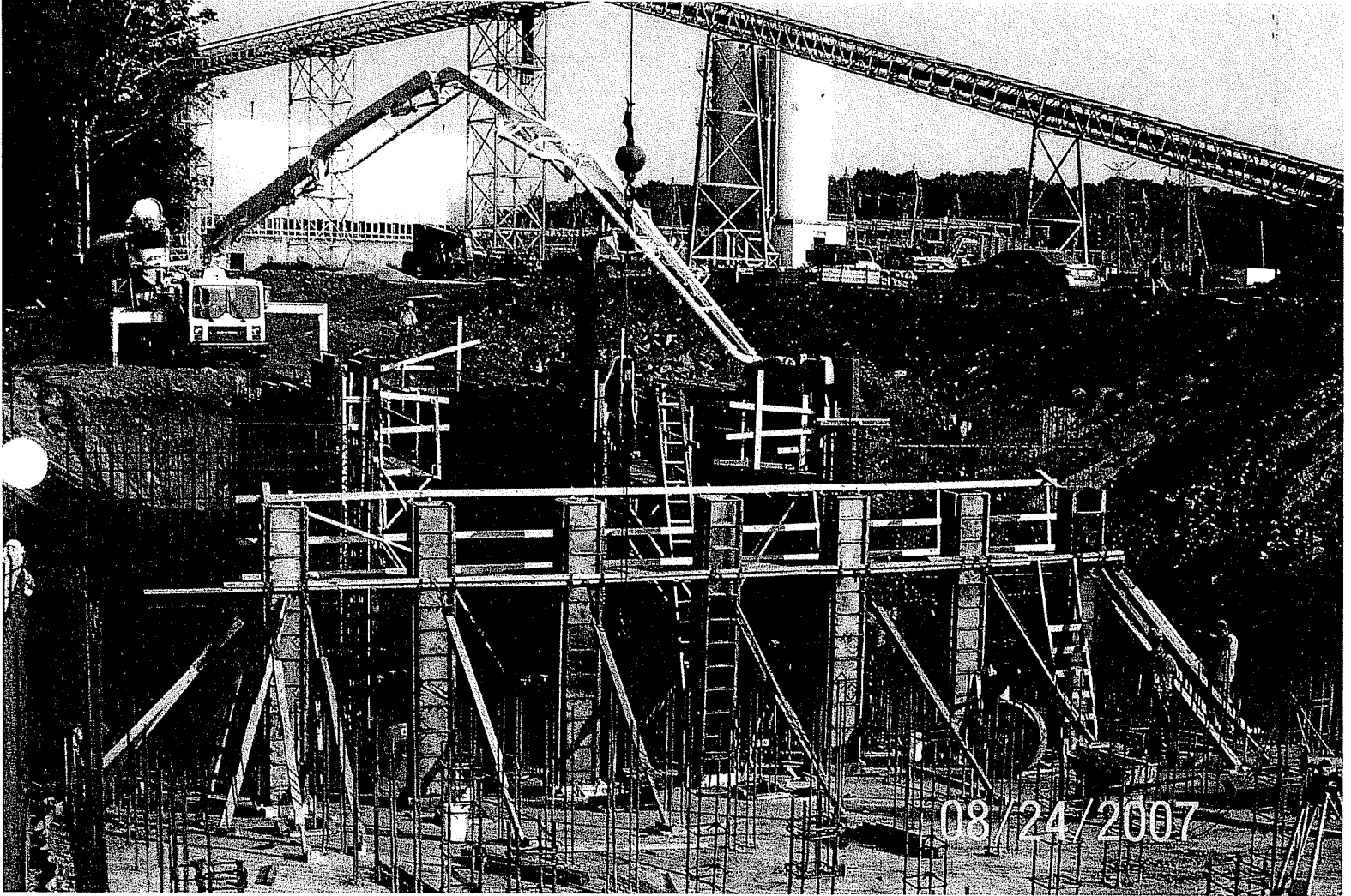
Concrete mix design.

### **Critical Issues:**











**EAST KENTUCKY POWER COOPERATIVE, INC.**

**PSC CASE NO. 2007-00168**

**INFORMATION REQUEST RESPONSE**

**ATTORNEY GENERAL'S DATA REQUESTS DATED**

**SEPTEMBER 17, 2007**

**REQUEST NO. 2**

**RESPONDING PERSON: Della Damron**

**Request 2:** Provide copies of all EKPC board minutes which have taken place since the PSC approved the certificate in this matter.

**Response 2:** Copies of EKPC 2007 board minutes for June, July, August, and September are attached.

Copies of Executive Session minutes for June, July, and August are attached.

**EAST KENTUCKY POWER COOPERATIVE, INC.  
MINUTES OF BOARD MEETING  
JUNE 11-12, 2007**

A regular meeting of the Board of Directors of East Kentucky Power Cooperative, Inc. ("EKPC") was held at the Headquarters Building, 4775 Lexington Road, Winchester, Kentucky, on Monday, June 11, 2007, at 9:30 a.m. EDT, pursuant to proper notice.

Chairman Wayne Stratton called the meeting to order. Carol Fraley gave the invocation. The minutes were kept under the supervision of Secretary A. L. Rosenberger. The secretary took the roll call with the following directors present:

Michael Adams	Licking Valley
Fred Brown	Jackson
Donnie Crum	Grayson
P. D. Depp	Taylor County
Danny Divine	Inter-County
E. A. Gilbert	Blue Grass
Elbert Hampton	Cumberland Valley
Hope Kinman	Owen
Jimmy Longmire	Salt River
Wade May	Big Sandy
A. L. Rosenberger	Nolin
Randy Sexton	Farmers
William Shearer	Clark Energy
Rick Stephens	South Kentucky
Wayne Stratton	Shelby
Lonnie Vice	Fleming-Mason

Also present was Grayson Director William T. Rice and Board Counsel J. B. Johnson.

**ANNOUNCEMENTS**

- Acknowledged a note of appreciation from Deborah Browning for EKPC's donation made in memory of Jackie Browning.
- Mentioned were several persons in need of remembrance.

**BOARD MINUTES**

On motion of P. D. Depp, seconded by Wade May, the minutes of the May 1, 2007, board meeting were approved.

## ADOPTION OF AGENDA

On motion of Danny Divine, seconded by Jimmy Longmire, the agenda was adopted as amended with the addition of an agenda item under the Operations, Services and Support Committee and pertaining to the Governor's Office for Local Development.

## EXECUTIVE SESSION

At 9:40 a.m., Chairman Stratton requested the Board go into Executive Session, and E. A. Gilbert made the motion, which was seconded. Those remaining included the Directors, Alternate Directors, Bob Marshall, and Executive Staff, and other staff. Della Damron stayed to assist the Secretary with the minutes.

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The minutes of the remainder of the **Executive Session** are included in the separate June 11, 2007, Executive Session Minutes of the regular Board meeting.

## REPORT OF THE OFFICERS

The majority of the Report of the Officers was presented during Executive Session.

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At 10:40 a.m., Chairman Stratton called for continuation of the regular Board meeting:

## REPORT OF THE OFFICERS (continued)

### Combustion Turbines

Jim Lamb provided a presentation with handout, regarding the Smith Station LMS100 Combustion Turbines. This matter will be presented to the Fuel and Power Supply Committee and then to the Board during today's meetings.

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At 10:58 a.m., Chairman Stratton asked for a motion, made by Danny Divine and seconded by Mike Adams and passed, to recess the Board meeting in order for the three standing Committees to conduct their regular monthly meetings.  
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At approximately 11:45 a.m., Chairman Stratton asked for a motion, made by Elbert Hampton, seconded by Mike Adams, and passed, to call the Board meeting back to order following the recess for Committee meetings.

#### **BUSINESS MANAGEMENT PLAN**

This information will be available on a once-a-quarter basis.

#### **AUDIT COMMITTEE ACTION ITEMS**

##### Energy Risk Management Policy & Energy Risk Management Credit Policy

Upon recommendation of management and the Audit Committee and after review of the applicable information, a motion was made by Bill Shearer and, there being no further discussion, passed to approve the following:

**Whereas**, EKPC has centralized the corporate risk management responsibilities within the Finance and Risk Management Process of the Finance Business Unit;

**Whereas**, Risk governance follows a top-down approach whereby the Board of Directors identify EKPC's risk management objectives with oversight by the Risk Oversight committee (currently the Audit Committee);

**Whereas**, EKPC has formalized its risk management functions by drafting an Energy Risk Management Policy with appendices, and an Energy Risk Management Credit Policy; now, therefore be it

**Resolved**, That the EKPC Board of Directors hereby approves the Energy Risk Management Policy and the Energy Risk Management Credit Policy.

#### **AUDIT COMMITTEE INFORMATION ITEMS**

No Audit Committee information or discussion items were brought before the Board.

#### **OPERATIONS, SERVICES AND SUPPORT ("OSS") COMMITTEE ACTION ITEMS**

##### Resolution to Honor Jackie Browning

After review of the applicable information, a motion was made by Elbert Hampton and, there being no further discussion, passed to approve the following:

**Whereas**, The East Kentucky Power Cooperative, Inc. ("EKPC") Board of Directors ("Board") wishes to express its appreciation to the family of Jackie Browning for his many contributions and support of EKPC's many programs and projects; for his years of guidance



as President and Chief Executive Officer of Farmers Rural Electric Cooperative Corporation; and his efforts in building a strong rural electric program in Kentucky; now, therefore, be it

**Resolved**, That the EKPC Board does hereby convey upon the family of Jackie Browning its most sincere thanks for his service from 1998 through May 4, 2007.

Resolution to Honor Donnie Crum

After review of the applicable information, a motion was made by Elbert Hampton and, there being no further discussion, passed to approve the following:

**Whereas**, The East Kentucky Power Cooperative, Inc. ("EKPC") Board of Directors ("Board") expresses its appreciation for the many contributions made by Donnie Crum for his leadership and support of EKPC's many programs and projects; for his guidance as a director representing Grayson Rural Electric Cooperative Corporation; for his untiring efforts in building a strong rural electric program in Kentucky; and for his total commitment toward a better community, state, and nation; now, therefore, be it

**Resolved**, That the EKPC Board does hereby convey upon Donnie Crum its most sincere thanks and best wishes.

Re-Filing of RUS AE-8 Loan Application

After review of the applicable information, a motion was made by Donnie Crum and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc., ("EKPC") has incurred and, subject to the receipt of necessary governmental and lender approvals, expects to incur capital costs for expenditures associated with the construction of the Smith 1 Unit and two Combustion Turbines at the J.K. Smith Power Station site, engineering services, preliminary structural design, and related transmission facilities (the "Facilities") as shown on RUS Form 740c, Cost Estimates and Loan Budget for Electric Borrowers, as follows: RUS Guaranteed Federal Financing Bank ("FFB") AE-8 Loan Requested for Facilities in an amount not to exceed \$950,000,000;

**Whereas**, After review and discussion of the applicable information, management and the Operations, Services and Support Committee recommend that an application be made for a loan to meet said requirements; and

**Whereas**, Said recommendation supports EKPC key measure of providing competitive energy by allowing EKPC to minimize financing costs on capital projects while managing cash flow; now, therefore, be it

**Resolved**, That the EKPC Board of Directors (“Board”) applies to the Rural Utilities Service (“RUS”), pursuant to 7 CFR Part 1710, for a guaranteed FFB loan in an amount not to exceed \$950,000,000, as specified above, for the Facilities, as more specifically outlined in the application, to be used in accordance with the provisions of 7 CFR Part 1710, subject to possible adjustment of loan amounts by RUS; and

**Resolved**, That the EKPC Board authorizes its officers to execute and attest all necessary papers, documents, and applications related to the foregoing; and

**Resolved**, That the RUS guaranteed loan shall bear a maturity date of December 31, 2040; and

**Resolved**, That the President and Chief Executive Officer, or the Vice President of Finance, is hereby authorized on behalf of EKPC (a) to execute and deliver from time to time advance requests, maturity extension election notices, prepayment election notices and refinancing election notices, in the form of such instruments attached to the note payable to FFB, and (b) to specify information and select options as provided in such instruments; and

**Resolved**, That EKPC hereby authorizes the RUS to release appropriate information and data relating to the application to the FFB and any existing supplemental lenders.

Speculative Building Project—Cumberland Valley REC/SEKY/EKPC

After review of the applicable information, a motion was made by Donnie Crum and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc. (“EKPC”) and its member systems have been involved in local economic development projects for many years, and those projects have been successful in assisting communities in their efforts to create new jobs and improve their well being; and

**Whereas**, Cumberland Valley Rural Electric Cooperative, Inc. (“CVREC”) desires to partner with EKPC, through its speculative building program, to assist the Southeast Kentucky Regional Industrial Authority (“SEKY”) in its objective to construct a speculative commercial/industrial building within the Southeast Regional Business Park; and

**Whereas**, Management and the Operations, Service and Support Committee recommend approval of EKPC’s participation with CVREC in paying the annual interest cost of SEKY’s building loan within the guidelines of EKPC’s speculative building program; and

**Resolved**, That the Board approves the recommendation that EKPC participate with CVREC on this project, subject to compliance with EKPC’s speculative building program

guidelines, and that annual interest payment be no more than 60% of the total interest due, or \$12,000 annually.

Restatement of EKPC Retirement Plans

After review of the applicable information, a motion was made by Donnie Crum and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc., ("EKPC"), is a participating employer in the National Rural Electric Cooperative Association ("NRECA")-sponsored Retirement Security ("RS") and 401(k) Pension Plans ("the Plans"); and

**Whereas**; The Board of Directors ("Board") of EKPC is aware that the Plans must periodically be amended to comply with new regulations, rulings, other legislation and operational changes, and that these amendments must be filed with the Internal Revenue Service as a restatement of the Plans and that this restatement will be effective July 1, 2006; now, therefore, be it

**Resolved**, That the EKPC Board authorizes the July 1, 2006, amendment, restatement and continuance of the RS and 401(k) Pension Plans to conform in their entirety with all the provisions of the plan documents of the RS and 401(k) Pension Plans, through the execution of the Adoption Agreement, which includes all of the provisions of EKPC's most recently executed Adoption Agreement; and

**Resolved**, That the EKPC Board is aware that the timing of the restatement may not correspond with regularly scheduled meetings of the Board of Directors, therefore the Board does hereby authorize and direct the President and CEO, or his designee, to execute all necessary documents and to take any and all further actions necessary to carry out the July 1, 2006, amendment and restatement.

Agreement Among EKPC, Kentucky Local Governmental Entity, and GOLD

After review of the applicable information, a motion was made by Donnie Crum and, there being no further discussion, passed to approve the following:

A RESOLUTION OF THE BOARD OF DIRECTORS OF EAST KENTUCKY POWER COOPERATIVE, INC. AUTHORIZING THE PRESIDENT & CEO TO ENTER INTO A THREE PARTY AGREEMENT AMONG EAST KENTUCKY POWER COOPERATIVE, INC., A KENTUCKY LOCAL GOVERNMENTAL ENTITY AND THE GOVERNOR'S OFFICE FOR LOCAL DEVELOPMENT (GOLD) FOR THE PROJECT LISTED BELOW, TO EXECUTE ANY DOCUMENTS WHICH ARE DEEMED NECESSARY BY GOLD TO FACILITATE THIS PROJECT AND TO AUTHORIZE THE EXECUTIVE OF THE LOCAL GOVERNMENTAL ENTITY TO ACT AS THE AUTHORIZED CORRESPONDENT FOR THIS PROJECT.

**WHEREAS**, East Kentucky Power Cooperative, Inc. has received the following Executive Order 2007-298 project to be administered by the Kentucky Governor's Office for Local Development:

EAST KENTUCKY POWER COOPERATIVE, INC. RAW WATER  
INTAKE PROJECT

**WHEREAS**, It is recognized that the project listed above impose certain obligations and responsibilities upon the Kentucky local governmental entity as the lead entity and the Board of Directors of East Kentucky Power Cooperative, Inc.

**NOW, THEREFORE**, be it **RESOLVED** this 11th day of June 2007, by the Board of Directors of East Kentucky Power Cooperative, Inc.

The President & CEO is hereby authorized to negotiate, execute and furnish all required documentation, including a memorandum of agreement, as may be required by GOLD for the furtherance of the above-referenced project and to authorize the Executive of the Kentucky local governmental entity to act as the authorized correspondent for said project.

**OSS COMMITTEE INFORMATION ITEMS**

No OSS Committee information items were brought before the Board.

**FUEL AND POWER SUPPLY ("F&PS") COMMITTEE ACTION ITEMS**

Ratification of SO<sub>2</sub> Emission Allowance Purchases

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc., ("EKPC") is provided SO<sub>2</sub> and NO<sub>x</sub> emission allowances from the Environmental Protection Agency at the beginning of the year, and EKPC faces penalties of \$2,000 per ton for failure to purchase allowances to cover its actual emission levels that exceed these allocations;

**Whereas**, The attached memo details the approval from the President and Chief Executive Officer for the purchase of 5,000 tons of SO<sub>2</sub> Vintage 2007 emission allowances at a total cost of \$2,716,250;

**Whereas**, Since the time of that purchase SO<sub>2</sub> emission allowance costs began to increase and have since increased from the purchase price of \$543.25/ton to a current level of \$610/ton;

**Whereas,** These purchases will contribute to EKPC meeting its projected emission allowance level with an appropriate amount of allowances, enable EKPC to generate power for the lowest cost possible for its member systems, and support EKPC's key measures for reliable and competitive energy costs; and

**Whereas,** EKPC management and the Fuel and Power Supply Committee have reviewed the President and Chief Executive Officer's actions taken on May 2, 2007, and find them to be reasonable; now, therefore, be it

**Resolved,** That the EKPC Board of Directors hereby ratifies the actions taken by the President and Chief Executive Officer on May 2, 2007, and hereby approves the purchases of 5,000 tons of SO<sub>2</sub> emission allowances as detailed herein, in the attached approval memo, and in the Executive Summary.

Combustion Turbines at J. K. Smith Power Station—Rescission; Authorization; Amendment

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas,** On March 10, 2005, East Kentucky Power Cooperative, Inc. ("EKPC") signed a contract with GE Package Power, Inc. ("GE") for five (5) LMS100 Gas Turbine Generators ("CTs") to be constructed at the J. K. Smith Power Station ("Smith Station"), for a price of [REDACTED];

**Whereas,** The original contract price included furnishing and installing the equipment and was based on a "full notice to proceed" ("FNTP") from EKPC to GE on or before September 1, 2005;

**Whereas,** EKPC was not able to issue a FNTP to GE until August 2006, when the Kentucky Public Service Commission granted a Certificate of Public Convenience and Necessity for the Smith CT Project, and GE notified EKPC at that time that the original contract terms did not apply and that, due to substantial increases in material, labor, and construction costs, the new contract price would increase;

**Whereas,** EKPC sought to amend the GE contract from five to two LMS 100 CTs following Warren Rural Electric Cooperative's ("Warren RECC") decision to withdraw from its power supply agreement with EKPC, and received a quote of approximately \$140 million from GE;

**Whereas,** The new expansion plan, without the addition of the Warren RECC load, calls for the addition of 200 MW of peaking capacity by June 2009, and, due to the substantial increase in the GE price for LMS 100 CTs, EKPC determined that the most economical alternative would be to construct less costly, but less efficient, GE 7EA CTs at Smith Station;

**Whereas,** On March 5, 2007, the EKPC Board of Directors (the "Board") rescinded the approval for the construction of five GE LMS 100 CTs, and authorized EKPC Management to construct and seek necessary approvals for two GE 7EA CTs;

**Whereas,** EKPC has continued to engage in contract talks with GE, and has now negotiated a new price for two (2) LMS100 CTs of [REDACTED], with the installation cost estimated at [REDACTED];

**Whereas,** GE's new proposed contract price includes firm pricing on GE engineering, material, commissioning, site & project management and estimated pricing on Balance of Plant ("BOP") equipment and labor to be furnished and installed as an "open-book" "cost-plus" arrangement;

**Whereas,** The total project cost for installing two (2) LMS100 CTs, including all balance of plant costs, plus a generator step-up transformer, site development, site modifications and a contingency amount, is now estimated at [REDACTED];

**Whereas,** A new economic analysis of the GE 7EA and LMS 100 alternatives resulted in the two LMS100 CTs being the most economical choice for the identified need for peaking capacity at Smith Station; and

**Whereas,** Management and the Fuel and Power Supply Committee recommend that the Board rescind its prior authorization for the construction of two GE 7EA CTs at Smith Station; authorize the construction of, and the obtaining of approvals for, two GE LMS 100 CTs at that site; and approve the appropriate changes to the GE Contract; now, therefore, be it:

**Resolved,** That the resolution of the EKPC Board on March 5, 2007 authorizing the construction of two (2) GE 7EA CTs at Smith Station, and the use of general funds for such project, is hereby rescinded;

**Resolved,** That the Board hereby authorizes the construction of two (2) GE LMS 100 CTs at Smith Station, at an estimated total cost of [REDACTED];

**Resolved,** That the use of general funds or other available short term funds, is authorized for this project, subject to reimbursement from loan funds, when and if such funds become available;

**Resolved,** That the Board approves the amendment to GE Contract CT801-CT901-CT103-CT111-CT121 that reduces the number of LMS100 CTs from five (5) to two (2), at a firm equipment furnish price of [REDACTED], and an estimated balance of plant cost of [REDACTED], on an "open-book", "cost-plus" basis; and

**Resolved,** That the President and Chief Executive Officer, or his designee, is hereby authorized to take all appropriate actions to obtain any permits or approvals needed for the subject construction or operation of the project, and to execute any and all necessary contracts and other documents relating to said project.

Close-out of Contract D252 w/Goettle Co.; Piling for Spurlock Unit No. 2 Scrubber Project

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas,** At the September 2005 East Kentucky Power Cooperative, Inc.'s ("EKPC") Board of Directors ("Board") Meeting approval was given to Engineer, Purchase, and Construct a Limestone Scrubber at Spurlock Power Station on Unit No. 2;

**Whereas,** At the June 2006 EKPC Board Meeting a contract was awarded to The Goettle Company ("Goettle") to purchase and install the piling for Spurlock Power Station Unit No. 2 Scrubber Project;

**Whereas,** The original approved contract amount was [REDACTED];

**Whereas,** One additional change order was obtained for an increase of [REDACTED], with a final contract price of [REDACTED];

**Whereas,** This piling has been installed satisfactorily; therefore, it is recommended that this contract be closed out and final payment of [REDACTED] be made at this time;

**Whereas,** In order to strategically manage costs and optimize the use of assets, careful planning must take place to ensure that EKPC's generating units have sufficient power supply for our Member Systems in the future; and

**Whereas,** The Fuel and Power Supply Committee and EKPC management recommend the approval of the close out of Contract D252; now, therefore, be it

**Resolved,** That the EKPC Board hereby approves the close out of Contract D252 with Goettle for purchasing and installing the piling for Spurlock Power Station Unit No. 2 Scrubber for a final contract price of [REDACTED] and release final payment of [REDACTED], and authorizes the President and Chief Executive Officer, or his designee, to execute any necessary documents to close out this contract.

Modifications to Spurlock Power Station Units Nos. 1 and 2—Re: Flue Gas Emission Limits

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc., (“EKPC”) entered in to a New Source Review Consent Decree (“Consent Decree”) with the United States Environmental Protection Agency (“EPA”) in May 2007;

**Whereas**, The Consent Decree places NOx emission limits on Spurlock Power Station Unit No. 1 and Unit No. 2 that exceed the design and operational performance capabilities of these units;

**Whereas**, Modification to the Unit No. 1 SCR to furnish and install an additional layer of catalyst with an estimated cost of \$3,000,000 and to furnish and install an additional catalyst soot blower with an estimated cost of \$500,000 is required;

**Whereas**, Modifications to the Unit No. 2 SCR to furnish and install an additional layer of catalyst with an estimated cost of \$4,000,000 and to furnish and install an additional catalyst soot blower with an estimated cost of \$500,000 is required;

**Whereas**, Modification to improve the Ammonia System’s reliability is an estimated cost of \$2,000,000 is required;

**Whereas**, Unit No. 1 Low NOx Burner replacement at an estimated cost of \$3,500,000 is required;

**Whereas**, Completing the list of modification and improvements listed above will allow us to meet the emission limits imposed by the Consent Decree, and

**Whereas**, The Fuel and Power Supply Committee and EKPC management recommend the approval to proceed with the modifications and improvements to Spurlock Power Station Unit No. 1 and Unit No. 2 by installing additional catalyst, ammonia system modifications, and Unit No. 1 Low NOx Burners for an estimated cost of \$13,500,000; now, therefore, be it;

**Resolved**, That the EKPC Board hereby approves to proceed with the modifications and improvements to Spurlock Power Station Unit No. 1 and Unit No. 2 by installing additional catalysts, ammonia system modifications, and Unit No. 1 low NOx burners for an estimated cost of \$13,500,000;

**Resolved**, That the Board approves the amendment of the Three-Year Construction Work Plan as needed; and

**Resolved**, That approval is given for the use of general funds for this contract, subject to reimbursement from loan funds, when and if such funds become available.



Maysville-Mason County Landfill Gas to Energy Project

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc. ("EKPC") has submitted a proposal to Mason County Fiscal Court ("Mason County") to construct, own, and operate ("develop") a Landfill Gas to Electric ("LFGTE") Project, near Maysville, Kentucky;

**Whereas**, EKPC has reviewed the gas projections provided by SCS Consulting Engineers ("SCS") for determining plant capacity and future gas production;

**Whereas**, EKPC has completed the feasibility study for the project and expects the facility to produce energy competitive with other power supply options;

**Whereas**, EKPC desires to develop the Maysville-Mason County LFGTE Project at a site owned by the Mason County Fiscal Court;

**Whereas**, EKPC will need to negotiate an acceptable site lease and fuel supply contract with Mason County to provide renewable energy from the project, at a 20-year levelized cost estimated at less than \$0.032/kWh;

**Whereas**, EKPC Management and the Fuel and Power Supply Committee recommend the development of the Mason County LFGTE Project; and

**Whereas**, This recommendation supports EKPC's corporate objectives by planning for the member cooperatives' load needs and investigating new ventures in generation outside the traditional supply of power for native load; now, therefore, be it

**Resolved**, That the Board of Directors hereby approves the use of general funds, subject to reimbursement from Rural Utilities Service's ("RUS") construction loan funds or the use of Clean Renewable Energy Bonds, when and if such funds become available, to allow EKPC to develop a LFGTE facility at the Maysville-Mason County Landfill, at an estimated capital cost of \$2,499,000, including any transmission requirements, subject to negotiating an acceptable site lease and fuel supply contract with Mason County to generate electrical energy at a 20 year levelized cost estimated at approximately \$0.032/kWh or less, and subject to obtaining all necessary regulatory approvals; and

**Resolved**, That the Board hereby authorizes the President and Chief Executive Officer, or his designee, to execute all necessary documents for such project on behalf of EKPC, and to seek all necessary regulatory approvals.

#### **F&PS COMMITTEE INFORMATION ITEMS**

No F&PS Committee information items were brought before the Board

#### **POWER DELIVERY ("PD") COMMITTEE ACTION ITEMS**

No PD Committee action items were brought before the Board.

#### **PD COMMITTEE INFORMATION ITEMS**

PD Committee Chairman Mike Adams reported that the Committee heard several updates presented by Mary Jane Warner.

#### **MEMBER SYSTEM NEEDS**

No member system needs were brought before the Board.

#### **EKPC DIVISION MONTHLY REPORTS**

Chairman Stratton noted the monthly reports as included in the Board books.

#### **AGENDA ITEMS FOR NEXT AGENDA**

No agenda items for the next agenda were brought before the Board.

#### **OTHER BUSINESS**

ACES Meeting – Chairman Stratton noted that at the ACES meeting, EKPC's, Hoosier's, and Big River's board officers met briefly, at Hoosier's request, as to interest in joint planning and joint power. Discussions are ongoing.

30-Year Acknowledgement – Bob Marshall acknowledged Gary Crawford's 30<sup>th</sup> anniversary at EKPC.

#### **RECESS FOR ANNUAL MEETING**

On motion of Wade May, seconded by Bill Shearer, and passed, the Chairman declared the meeting recessed at 12:10 p.m., with the Board to reconvene for an organizational meeting on Tuesday, June 12, 2007, immediately following the adjournment of the Annual Meeting of Members.

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## RECONVENING AND ELECTION OF OFFICERS

At the Annual Meeting of Members held June 12, 2007, during the Board recess, the following directors and alternate directors were elected:

<u>Cooperative</u>	<u>Director</u>	<u>Alternate Director</u>
Big Sandy RECC	Wade May	Bobby Sexton
Blue Grass ECC	E. A. Gilbert	Daniel Brewer
Clark EC	William P. Shearer	Paul G. Embs
Cumberland Valley EI	Elbert Hampton	Ted Hampton
Farmers RECC	Randy Sexton	Paul Hawkins
Fleming-Mason EC	Lonnie Vice	Chris Perry
Grayson RECC	William T. Rice	Carol H. Fraley
Inter-County E	Daniel Divine	James Jacobus
Jackson EC	Fred Brown	Donald R. Schaefer
Licking Valley RECC	Michael Adams	Kerry Howard
Nolin RECC	A. L. Rosenberger	Michael Miller
Owen EC	Hope Kinman	Robert Hood
Salt River EC	Jimmy Longmire	Larry Hicks
Shelby EC	R. Wayne Stratton	Debbie Martin
South Kentucky RECC	Richard Stephens	Allen Anderson
Taylor County RECC	P. D. Depp	Barry Myers

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By consensus of the Board, and for purposes of conducting the election of officers, Board Counsel J. B. Johnson acted as Temporary Chairman and reconvened the regular meeting back to order at 10:55 a.m. on Tuesday, June 12, 2007, at EKPC Headquarters Building, 4775 Lexington Road, Winchester, Kentucky, and directed that the newly elected Directors and Alternate Directors be listed in the minutes of the meeting. All systems were represented. After reviewing the customary procedures for the election of officers, Judge Johnson then continued with election of officers for Chairman of the Board, Vice Chairman of the Board, and Secretary-Treasurer.

### Chairman of the Board – R. Wayne Stratton

E. A. Gilbert nominated Wayne Stratton for Chairman of the Board. Fred Brown moved that nominations cease and Mr. Stratton be elected by acclamation. The motion was seconded by Danny Divine and passed unanimously and the temporary Chairman declared Wayne Stratton elected as Chairman of the Board by unanimous consent.

Vice Chairman of the Board – Lonnie Vice

Danny Divine nominated Lonnie Vice for Vice Chairman of the Board. E. A. Gilbert moved that nominations cease and Mr. Vice be elected by acclamation. The motion was seconded by Wade May and passed unanimously and the temporary Chairman declared Lonnie Vice elected as Vice Chairman of the Board by unanimous consent.

Secretary-Treasurer – A. L. Rosenberger

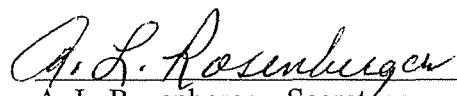
Fred Brown nominated A. L. Rosenberger for Secretary-Treasurer of the Board. E. A. Gilbert moved that nominations cease and Mr. Rosenberger be elected by acclamation. The motion was seconded by Lonnie Vice and passed unanimously and the temporary Chairman declared A. L. Rosenberger elected as Secretary-Treasurer of the Board by unanimous consent.

Board Chairman Wayne Stratton came forward to conduct the remainder of the meeting.

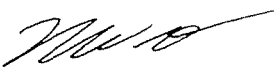
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**OTHER BUSINESS**

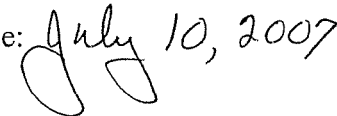
No other business was brought before the Board.

There being no further business, the EKPC Board meeting was adjourned at 10:57 a.m.

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A. L. Rosenberger, Secretary

Approved:

  
R. Wayne Stratton  
Chairman of the Board

Date: July 10, 2007  


East Kentucky Power Cooperative, Inc.  
Energy Risk Management Policy

REDACTED

### 1. Policy Purpose

The purpose of this document is to formalize East Kentucky Power Cooperative's (EKPC's) policies on managing the risks inherent in its wholesale energy portfolio. Accordingly, this policy will set forth EKPC's:

- risk management objectives,
- risk governance structure and responsibilities, and
- control policies.

EKPC intends that risk management will support the advancement of the Company's strategic business plan, and properly manage its business and financial risks through:

- prudent oversight,
- adequate mitigation of risks, and
- sufficient internal controls.

Managing the risk of EKPC's business entails the coordination of resources and activities among multiple business units within EKPC and with Alliance for Cooperative Energy Services Power Marketing (APM).

### 2. Risk Management Objectives

EKPC exists primarily to provide reliable and competitive energy to their members. Managing EKPC's risk is consistent with that mission, and serves the following objectives:

- to maintain risk within desired tolerances,
- to mitigate price volatility to the member systems,
- to maintain stable cash flows,
- to enhance the value of company assets/resources, and
- to leverage opportunities to increase the value of EKPC to its members
- to participate in the energy markets for hedging and not speculative purposes.

### 3. Risk Governance Structure and Responsibilities

Risk governance will follow a top-down approach whereby the Board of Directors identifies EKPC's risk management objectives with oversight carried out by a Risk Oversight Committee chartered by the board. Controls will be implemented and aligned throughout the risk governance structure, with distinct roles and responsibilities that result in an enhanced control environment. Governance and controls include the organizational setup, policies, and procedures that support the company's business models, establish risk tolerances, and segregate responsibilities appropriately.

**EKPC Board Minutes for 6/11-12/2007  
Attachment A, Page 2 of 35**

**a. Board of Directors – Risk Management Responsibilities and Duties**

- Understands the major physical and financial risks inherent to serving EKPC's members reliably and competitively.
- Approves the authority limits to conduct market transactions .
- Approves annually a projected power supply cost for the next year in the EKPC Budget and approves long-term projections of power supply cost in the Financial Forecast.
- Charters the Risk Oversight Committee.
- Approves and periodically reviews a risk policy that establishes an overall framework for evaluation, management, and control of risk.
- Receives periodic updates on the Company's risk profile.
- Approves participation in specific market commodities.

**b. Risk Oversight Committee (ROC)– Responsibilities and Duties**

Membership of the ROC includes a committee of Board directors and the Board alternate directors. EKPC's Audit Committee will serve as the ROC. The ROC oversees the risk management activities of EKPC on behalf of the Board.

- Establishes scope and frequency for management reporting to the ROC and Board.
- Periodically reviews risk exposures and compliance.
- Discusses EKPC's major financial risk exposures and the steps management has taken to monitor and control such exposures.
- Recommends Board Risk Policy changes.
- Reviews and approves the Energy Risk Identification and Exposure Management Guidelines (Appendix 2).
- Reviews and approves any New Commodities, Products, Instruments or Locations (Appendix 5).
- Approves management staff individuals to serve as members of a Risk Management Committee.

**c. President/Chief Executive Officer – Risk Management Responsibilities and Duties**

- Recommends staff management individuals to serve as members of a Risk Management Committee.
- Has authority to transact within the corporate level management limits set by the Board of Directors (Policy 103).
- Reviews and approves Energy Risk Management Credit Policy.
- Reviews and approves Energy Risk Management Contract Controls Guidelines (Appendix 3).
- Approves proper organization, separation or consolidation of functional activities and authorizes the staff person serving in the role of the independent risk management function.

**EKPC Board Minutes for 6/11-12/2007  
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- Establishes and maintains an effective working relationship with APM.
- Receives reports by the independent risk management function on EKPC's compliance with its risk policy and risk management in accordance with the policy.

**d. Risk Management Committee (RMC) – Responsibilities and Duties**

Membership of the RMC includes, at a minimum, the Chief Financial Officer (CFO)/ Vice President of Finance, Sr. Vice President of Power Supply and Sr. Vice President of G&T Operations. The RMC establishes a forum for discussion of the company's risk and must develop guidelines required to implement an appropriate risk management control infrastructure; this includes implementation and monitoring of compliance with EKPC's Energy Risk Management Policy. The RMC executes its risk management responsibilities through direct oversight and prudent delegation of its responsibilities to an independent risk management function, as well as to other business unit personnel.

- Reviews and approves the risk policy and oversees enforcement by an independent risk function.
- Ensures that risk management objectives, risk tolerances, and limits are employed throughout EKPC.
- Receives reports by the independent risk management function on EKPC's compliance with its risk policy and risk management in accordance with the policy.
- Recommends proper organization, separation or consolidation of functional activities to the CEO.
- Reviews and approves the risk management strategy proposals for strategic fit, risk exposure monitoring, and reporting and control requirements. The RMC shall ensure that approved strategies shall be consistent with EKPC's approved business plan; risk management and power supply objectives, approved risk tolerance, and compliance with risk management policy.
- Periodically reviews EKPC's risk management program in light of recent changes in business practices, improved processes, the EKPC's philosophy and strategy, or market changes; and ensures continued compliance with its established guidelines.
- Formulates risk management strategy and policy necessary for new product or market implementation.
- Requires and reviews regular risk reports provided by the independent risk function.
- Reports to CEO regularly on Company's risk management activities.
- Holds RMC meetings. Standing agenda items should include, but not be limited to, current market strategy, review of current price exposure position, review of current exposure to non-member transactions, control requirements/ enhancements, and review of counterparty credit exposure.
- For market transactions executed within EKPC, performs an annual review of transaction policies and codes of ethics. This includes review of disciplinary actions upon violation of RMC policies and procedures.

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- Enforces disciplinary action upon violation of RMC policies and procedures.
- Reviews the infrastructure supporting risk management and ensures that it meets the requirements for risk oversight and compliance.

**e. Independent Risk Management Function – Responsibilities and Duties**

This function shall be organizationally independent of functions whose activities initiate or create most of the risk of the EKPC (usually power supply). Business units or support functions will be required to provide this function with reports or information required for risk assessment and analysis on a regular or periodic basis.

- Performs responsibilities delegated by the RMC.
- Engages the RMC in discussions regarding events or developments that could expose the EKPC to potential losses or excessive costs.
- Recommends to the RMC specific risk limits consistent with EKPC's risk management and power supply objectives, risk tolerance, and risk management policy.
- Develops, recommends, and administers risk management processes and procedures.
- Reviews risk management activities; risk controls, and recommends modifications of controls to meet changing business needs.
- Reviews adequacy and accuracy of reports, and reports any deficiencies to the RMC.
- Monitors functional activities to ensure RMC limits are adhered to.
- Reports any violation of EKPC's risk policies.
- Directs execution and management of approved risk management strategies, ensuring compliance with risk management policies specified by the RMC.
- Reviews and approves changes to the risk management business procedures, as appropriate, except those that require full RMC approval.
- Reports regularly to the RMC, at a minimum, but not limited to:
  - Portfolio Model risk measure
  - Limit utilization
  - Status of exemptions and exceptions
  - Credit utilization
- Reports to the RMC on the EKPC's compliance with its risk policy and risk management in accordance with the policy.
- Reviews and evaluates proposed activities and transactions to be executed by EKPC, and ensures adequate analysis has been performed with proper assessment and mitigation of any such risk consistent with risk management objectives and risk tolerance, and compliance with risk management policy, including the financial, legal, credit, operational and marketing impact.



**f. Alliance for Cooperative Energy Services Power Marketing, LLC (APM) – Roles and Responsibilities**

EKPC is a member of APM and will use this alliance to obtain selected energy risk management and transaction execution services. In accordance with the agreements between EKPC and APM, APM is authorized to and shall:

- Periodically provides the Cooperative with a controls audit report from an independent auditor.
- Execute energy transactions on behalf of the Cooperative in accordance with established delegations of authority and compliance requirements set forth by EKPC's Trading Authority Matrices (TAM) and Policy 103.
- Upon request, Administer counterparty contracts and manages credit in compliance with the Energy Risk Management Credit Policy.
- Provide the Cooperative with daily reports on individual transaction details, commodity positions, and counterparty credit positions for transactions executed by APM.
- Provides the Cooperative with periodic risk profile reports addressing the Cooperative's energy risk and recommends hedging strategies within the time horizon specified by the Cooperative for assessment.
- Captures the Cooperative's transactions in its risk management systems.
- Monitors compliance of transactions with the Cooperative's TAM and Policy No. 103.
- Confirms transactions with the Cooperative's counterparties.
- Marks to Market forward trades for credit exposure purposes.

**4. Scope of Business Activities Governed by this Policy**

The scope of this risk policy is designed to address the risk associated with EKPC's participation in the wholesale energy market.

**a. Wholesale Energy Portfolio**

An energy portfolio is a collection of energy assets, obligations, transactions, and/ or trades. The energy portfolio of the EKPC includes:

- Member load
- Power supply resources
- Forward and futures contracts for power, natural gas, coal, and fuel oil markets
- Spot power market, natural gas, coal, and fuel
- Emission allowances
- Power Transmission Arrangements
- Gas Transportation Arrangements
- Non-member power sales
- Other Physical and Financial Risk Management Transactions

The energy portfolio business objectives of EKPC are consistent with EKPC's overall risk management objectives. They are as follows:

- Serve native load obligation
- Supply members with reliable, competitively priced power
- Optimize resource portfolio (balancing resources with load at market prices)
- Hedge market price and volumetric risks
- Utilize existing resources to create value through non-member margins.
- Participate in the energy markets for hedging and not speculative purposes.

The power supply function of EKPC will develop and administer a strategy to manage the energy portfolio of EKPC consistent with risk management and power supply objectives and approved risk tolerance, and within compliance of risk management policy. The RMC will periodically review and approve the energy portfolio strategy of EKPC, and compliance of it with risk management policy.

#### **b. Risk Management of EKPC Energy Portfolio**

Energy risk management is the function of monitoring; measuring and managing the risks associated with the energy business activities of an entity within the risk tolerance of the company. Measuring and managing the energy risk of EKPC differs substantially from that of many of the large energy market participants. The business model and energy risk profile of EKPC is rooted in its load serving obligations. See Appendix 1 for a description of EKPC Risk Profile and how it differs from that of energy merchant companies.

Risk Management of EKPC energy portfolio includes the responsibilities and duties set forth earlier under the Risk Governance Structure and Responsibilities Section of this Policy.

#### **5. Associated Guidelines, Controls, Policies and Procedures**

Supporting guidelines, controls, policies and procedures required as part of this policy are outlined below. Responsibility for their approval, modification, oversight, and compliance shall be consistent with the governance section of this policy and unless otherwise stated does not require the approval of the Board.

Energy Risk Management Credit Policy

- Appendix 1 EKPC Risk Profile
- Appendix 2 EKPC Energy Risk Identification and Exposure Management Guidelines
- Appendix 3 EKPC Energy Risk Management Contract Controls
- Appendix 4 EKPC Trading Authority Matrices<sup>1</sup>
- Appendix 5 New Commodities, Products, Instruments or Locations Process

<sup>1</sup> Requires EKPC Board approval.

## Appendix 1

East Kentucky Power Cooperative, Inc.  
Risk Profile

East Kentucky Power Cooperative, Inc. (EKPC) operates under a different business model than merchant energy companies, and therefore has a different risk profile, requiring a different approach to risk management.

- EKPC is in the business to provide reliable competitive power to its member systems.
- EKPC is not in the energy business to trade speculatively (buy low – sell high), or to initiate energy risk positions.
- EKPC is not in the energy business to take at-risk positions in merchant generation.
- EKPC by nature has significant volumetric risk that results from: 1) its existing long-term load serving obligations, 2) the supply hedges used to meet those obligations (generation, forwards, options, demand side management, etc), and 3) the volumetric differences that occur between numbers 1 and 2 above ('unmatched positions').
- EKPC participates in the forward term electric market *defensively* to hedge the risk of its forward load serving obligations (short positions) based on monthly or seasonal forecasted peak loads, plus a capacity planning reserve. There are about 730 hours in each calendar month, and due to the unpredictability of the weather, it is impossible to know prior to a month when the peak load hour will be. Consequently, EKPC's forward short and long positions are measured in MWs, not MW hours.
- Sometimes EKPC also has forward positions that are net long after meeting its firm load obligations, and will participate in the forward term electric market to hedge that risk.
- EKPC participates in the weekly/daily/hourly electric market to balance its unmatched positions at the market price in real time, and in the near term timeframe of predictable weather trends.
- EKPC also participates in both the short-term and long-term energy markets to hedge their anticipated fuel consumption, financially or physically, and to supply fuel to their generation units.
- EKPC is not in the practice of mark-to-market revenue recognition.<sup>1</sup> Their revenues from rates to its member distribution systems are cost based, without variability for mark-to-market fluctuations.

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<sup>1</sup> Under the GAAP principle of matching revenues and expenses, the required FAS 133 marks on options are deferred from affecting the EKPCs statement of revenue and expense when the revenue recovery for option premiums occurs during the same financial period(s) that the option can deliver energy. Marks will be reflected in revenues and expenses if open at the end of the financial period.

- As load serving entities, EKPC transacts nearly all of its electric business in the physical delivery market.
- Unlike managing a portfolio of only standard traded electric products (e.g. 5X16 Firm LD at a pricing hub) that protect the parties financially from volumetric risk, EKPC's energy portfolio typically has significant volumetric risk, because:
  - Load obligations are obviously not flat in volume, they fluctuate hour-by-hour, minute-by-minute.
  - Loads can be difficult to predict (weather forecasts, weather correlation).
  - EKPC owns generation, which is subject to forced outages and derates.
  - Some supply resources may not be financially firm (system firm or unit contingent purchases, non-firm purchases, etc.).
  - Physical transmission delivery risks exist.
- Unlike managing a portfolio of only standard traded electric products (e.g. 5X16 Firm LD at a pricing hub) that are generally liquid, it would be very time consuming to liquidate the entire forward risk in EKPC's energy portfolio. It is not unusual for a G&T to have unmatched positions of load obligations (short) and supply resources (long) that extend out in forward time for 20 to 30 years. In order to 'flatten' a G&T's book of unmatched risk positions to a risk neutral position, it would usually require a lengthy time period for a Request for Proposal (RFP) and negotiation process to obtain a tailored physical 'wrap-around' alliance deal. Even then, because of the uncertainty of forward electric prices beyond about four years, these types of deals are usually limited to the next 5 or 10 years forward, not 20 to 30.
- Native load does not behave according to any derivative that can be loaded into a risk system.

## Appendix 2

East Kentucky Power Cooperative, Inc.  
Energy Risk Identification and Exposure Management Guidelines**1. Identification of Risks**

The energy portfolio of East Kentucky Power Cooperative, Inc. (EKPC) may be exposed naturally to the following risks.

- Market price risk
  - Power
  - Fuels
- Volumetric risk
  - Load forecast/ weather variability risk
  - Forced outage/ de-rate risk
- Delivery risk
- Credit risk
- Contract risk
- Counterparty performance risk
- Concentration Risk
- Operational risk
- Cash Margin Risk

This document defines these risks and provides guidelines as to how they shall be managed under most conditions.

**2. Definition of Risks**

**Market price risk** is the risk of loss due to potential fluctuations in the prices of an underlying energy commodity. In the wholesale power market, EKPC has risk that prices raise, spike or are generally high when it is short of meeting its firm supply obligations. EKPC has risk that prices fall or are generally low when it is long compared to its firm supply obligations.

With coal and gas fired resources and/or contractual resource rights in its energy portfolio, EKPC has a *natural short position in coal and natural gas* as a result of needing to supply fuel to its generating resources. In these fuel markets, EKPC has risk that prices rise, spike or are generally high when the units are needed to meet its firm supply obligations, or when the gas resource(s) are in-the-money relative to the wholesale power market.

Market price risk occurs across all tenors, from the hourly market to the long-term forward market (5 years +).

**Volumetric risk** is the risk that energy commodity volumes will vary from expected volumes and result in a potential loss due to changing commodity market prices. The primary volumetric risks that EKPC is exposed to are *load forecast/ weather variability risk, forced outage/ de-rate risk, and delivery risk*.

**Load forecast/weather variability risk** is the risk that actual loads differ from forecasted loads due to the error in weather forecasts and load forecasts. This risk is natural to EKPC's portfolio since it is a load serving entity. Since this risk will result in EKPC being unintentionally long or short in the spot market, it naturally results in hourly market price risk. This risk also results in scheduling costs imposed by network transmission providers.

**Forced outage and de-rate risk** is the risk that a generating unit does not perform when it is expected to be available, or when it performs below the expected capability. This risk is natural to EKPC's portfolio since it has ownership and operation of generation to meet its load requirements. Since this risk will result in EKPC being unintentionally short in the market, it also naturally results in market price risk.

**Delivery risk** is the risk that the EKPC cannot meet a firm supply obligation due to a transmission constraint or that delivery congestion causes a financial risk to EKPC. Delivery risk is natural to EKPC in meeting its firm supply obligations. EKPC can also be exposed to delivery risk in the transportation of its fuel supply.

**Credit risk** is the risk of a potential adverse occurrence of a counterparty's ability to pay its obligations to EKPC.

**Contract risk** is the risk of a potential adverse occurrence or non-performance of a counterparty contract due to omissions or weaknesses in contract provisions.

**Counterparty performance risk** is the risk of a potential adverse occurrence of a counterparty's ability to operationally perform on an agreement.

**Concentration risk** is the risk of having large exposures to outage risk, fuel types, counterparty performance risk, or credit risk. Concentration risk related to forced outage occurs if an overly large portion of EKPC's supply portfolio is generated by a single resource. Concentration risk related to counterparty's contractual performance or credit occurs if a large portion of EKPC's supply portfolio is purchased from a single counterparty, or there are large credit exposures to a small number of counterparties. Concentration risk related to fuel types is if EKPC's portfolio is overly concentrated by a specific fuel type.

**Commercial operational risk** is the risk of direct or indirect loss from inadequate or failed internal processes, people, and systems.

**Cash margin risk** is the risk associated with inadequate cash flow resulting from margin requirements of a contractual agreement. For example, the EEI Master Agreement provides that counterparties may margin each other when they are overexposed above credit thresholds that were negotiated between the parties when the agreement was executed. Credit exposures include replacement cost exposure on a mark-to-market basis when a counterparty's position is out-of-the money.

### **3. Guidelines and Tools to Manage Risk**

#### **Portfolio Model**

Market price risks and volumetric risks will be managed in the near term planning cycle utilizing a portfolio model. The portfolio model is a risk assessment of EKPC's energy portfolio based on Monte Carlo simulation that provides a cumulative probability curve of EKPC's price to its members in forward months, rolled up to years.

#### **Long-Term Planning**

Market risks and volumetric risks will also be managed by long-term resource planning in both the near term and long term. EKPC's planning function will forecast its long-term firm supply obligations based on its expectations for load growth. To address volumetric risks, EKPC will meet a planning reserve margin of capacity according to the applicable reliability region standards, at a minimum. To address market price risks, EKPC will maintain its resource capacity within a reasonable target range of its monthly firm supply capacity obligations, including planning reserves.

#### **Firm Transmission**

As a control area, EKPC primarily manages its delivery risk through its ownership of transmission assets. From time to time, EKPC is exposed to delivery risks for supplies secured outside its control area. To manage potential delivery risk from supplies exposed to delivery or congestion risk, EKPC will attempt to procure firm transmission in advance when available and economically feasible. Firm transmission is often not secured for 100% of the native load to allow for the opportunity to take advantage of market price disparities between delivered prices and nearby hubs. Price disparity opportunities will be managed on the day-ahead and hourly trade desks. In the event that adequate firm transmission is not available, the Risk Management Committee will be notified as to recommended methods by which it will be managed.

**Credit Policy**

Credit risks and counterparty performance risks will be managed according to the credit controls, per the Credit Policy.

**Contract Controls**

Counterparty performance risks will also be managed according to Contract Controls, Appendix 3.

**Diversity Management**

EKPC will manage its concentration risks by diversifying its supply resources. A single supplier will not be used to meet capacity requirements.

**Commercial Controls**

EKPC will manage its commercial operational risks according to authority limits to conduct market transactions. The CEO's authority limits to conduct market transactions are approved by the EKPC Board, and are included in the attached Appendix 4. The CEO will prudently delegate his authority limits to the level at which authority to conduct market transactions resides from senior G&T management down to APM.

EKPC will also manage its commercial operational risks to New Commodities, Products, Instruments, or Locations according to a control process for such, Appendix 5.

**Liquidity Management**

EKPC will manage its cash margin risk by maintaining adequate cash reserves, and by striving to negotiate credit thresholds from its counterparties that are favorable to EKPC.

**Risk Management Transactions**

Numerous transactions may be entered to mitigate risk consistent with the Board approved power supply cost goal and risk tolerance. Several hedging instruments and commodities are used to manage EKPC's energy portfolio risks, which include purchases or sales of physical commodities, financial instruments, gas transportation, power transmission, power generation capacity, and fuel storage. The following hedging instruments and commodities are permitted to be transacted when used consistent with this policy and its supporting controls, policies and procedures.

- Physical Transactions
  - Forward power, coal, natural gas and fuel oil contracts
  - Options on power, coal, natural gas, and fuel oil



- Power generation plants
  - Spot market power, coal, natural gas, and fuel oil
  - Natural gas storage
  - Power transmission and ancillary services
  - Natural gas transportation and ancillary services
- Financial Transactions
    - Futures contracts for power, natural gas, coal and fuel oil
    - Swap contracts for power, natural gas, coal, and fuel oil
    - Options on power, coal, natural gas, and fuel oil
    - Emission allowances and related options
    - Weather protection transactions
    - Unit outage protection transactions

### **Amendments to the Energy Risk Identification Exposure Management Guidelines**

From time to time it may be necessary to make changes to these guidelines. Amendments to these guidelines are to be allowed with the signed approval of the Chairman of the Risk Oversight Committee.

### **APPROVAL OF GUIDELINES**

Accepted as the Energy Risk Identification and Exposure Management Guidelines of East Kentucky Power Cooperative, Inc., this \_\_\_\_ day of \_\_\_\_\_, 2007:

\_\_\_\_\_  
**Chairman of EKPC Audit Committee  
Serving as the Risk Oversight Committee**

## Appendix 3

**East Kentucky Power Cooperative, Inc.  
Energy Risk Management Contract Controls**

Transactions with counterparties shall only be permitted if East Kentucky Power Cooperative (EKPC) has an active, valid, and executed agreement enabling such trading activity with that counterparty.

Written confirmations will be prepared and used with counterparties for all trades that are for a delivery period of one day or more.

Letter agreements, or long form confirmations may be used in lieu of permanent agreements, when necessary.

EKPC will strive to replace enabling agreements that contain outdated products and lack best practice provisions, such as weak force majeure language.

From time to time it may be necessary to make changes to these controls. Amendments are to be allowed with the signed approval of the President of EKPC.

**APPROVAL OF CONTRACT CONTROLS**

**Accepted as the Energy Risk Management Contract Controls of East Kentucky Power Cooperative, Inc., this \_\_\_\_ day of \_\_\_\_\_, 2007:**

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**Robert M. Marshall  
President and CEO  
East Kentucky Power Cooperative, Inc.**

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Appendix 4

**East Kentucky Power Cooperative  
Electric Energy and Related Transmission  
Trading Authority Matrix and Policy  
Effective 11/14/2006**

Title	Product	Per Transaction Limits (up to)			Per Trading Day Limits (up to)		
		Term	MW Size	\$/MWh	Total MWh's	Total \$	
EKPC Board of Directors	Electric Energy, Related Transmission and Electric Options	No Limit	No Max.	No Max.			
EKPC CEO with recommendation from Portfolio Management Committee		Hourly	No Max.	No Max.	No Max.	\$50 million	
		Daily	No Max.	No Max.	No Max.	\$50 million	
		"	Weekly	No Max.	No Max.	No Max.	\$50 million
		"	Monthly / Seasonal - Up To 9 Months	1000 MW	\$150	400,000	\$20 million
		"	1 Year	400 MW	\$100	3,504,000	\$50 million
Portfolio Management Committee	"	Hourly	No Max.	No Max.	No Max.	\$25 million	
	"	Daily	No Max.	No Max.	No Max.	\$25 million	
	"	Weekly	1200 MW	\$400	96,000	\$25 million	
	"	Monthly / Seasonal - Up To 9 Months	500 MW	\$150	200,000	\$10 million	
Sr. VP Power Supply	"	Hourly	1000 MW	No Max.	25,000	\$10 million	
	"	Daily	1000 MW	\$400	35,000	\$10 million	
	"	Weekly	1000 MW	\$300	80,000	\$10 million	
	"	Monthly / Seasonal - Up To 6 Months	300 MW	\$150	100,000	\$5 million	
Director of Power Supply	"	Monthly / Seasonal - Up To 3 Months	100 MW	\$100	50,000	\$2 million	
Generation Dispatch Supervisor	"	Hourly	800 MW	\$250	24,000	\$1 million	
	"	Daily	750 MW	\$150	24,000	\$1 million	
	"	Weekly	300 MW	\$100	24,000	\$1 million	
System Operator	"	Emergency Hourly	No Max.	No Max.	No Max.	No Max.	
	"	Hourly	500 MW	\$200	12,000	\$500,000	

Portfolio Management Committee consists of: CFO/VP Finance; Sr. VP G&T Operations; Sr. VP Power Supply Generation Dispatch Supervisor, Director of Power Supply

Note: Transactions to be completed with input and consultation from ACES Power Marketing.

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Appendix 4

**East Kentucky Power Cooperative, Inc.  
Transmission Authority Matrix  
Limits Per Transaction  
Effective 11/14/2006**

<b>Title</b>	<b>Product</b>	<b>Quantity MW/Month</b>	<b>Price \$/kW/Mo</b>	<b>Total Dollars</b>
Board of Directors	Transmission \$/kW/M	Unlimited	Unlimited	Unlimited
F&PS Committee	Transmission \$/kW/M	1,000 MW <= 3 years	\$7.50	\$50,000,000
President and CEO	Transmission \$/kW/M	750 MW <= 3 years	\$5.00	\$25,000,000
Sr. VP Power Supply	Transmission \$/kW/M	500 MW <= 1 year	\$4.00	\$15,000,000
Director of Power Supply	Transmission \$/kW/M	300 MW <= 3 months	\$4.50	\$1,250,000
Generation Dispatch Supervisor	Transmission \$/kW/M	500 MW <= 3 months	\$4.50	\$2,500,000
Generation Dispatch Supervisor	Transmission \$/kW/M	300 MW <= 1 month	\$4.00	\$500,000

Note: Transactions to be completed with input and consultation from ACES Power Marketing.

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Appendix 4

**East Kentucky Power Cooperative, Inc.  
Electricity Options Authority Matrix  
Limits Per Transaction  
Effective 11/14/2006**

Title	Product	Quantity MW/Month	Price \$/MWh	Total Dollars
Board of Directors	Electricity Options	Unlimited	Unlimited	Unlimited
F&PS Committee	Electricity Options	800 MW <= 3 years	\$15.00	\$50,000,000
President and CEO	Electricity Options	500 MW <= 3 years	\$10.00	\$20,000,000
CFO/VP Finance	Electricity Options	300 MW <= 1 year	\$5.00	\$5,000,000

Note: Transactions to be completed with input and consultation from ACES Power Marketing.

Appendix 4

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**East Kentucky Power Cooperative, Inc.**  
**Natural Gas Authority Matrix**  
**Daily Gas Purchases**

Title	Product	Per Day Limits (up to)			Approval/Review
		Quantity MMBtu/Day	Price \$/MMBtu	Total Dollars	
President and CEO	Natural Gas \$/MMBtu	Unlimited	Unlimited	Unlimited	Review by F&PS Committee and Board of Directors
Sr. VP Power Supply	Natural Gas \$/MMBtu	Daily 250,000	Unlimited	\$10,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
Production Service Mgr.	Natural Gas \$/MMBtu	Daily 250,000	Unlimited	\$5,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
Generation Dispatch Supervisor or Senior Fuel Buyer	Natural Gas \$/MMBtu	Daily 250,000	\$15.00	\$3,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
Generation Dispatcher	Natural Gas \$/MMBtu	Daily 250,000	\$10.00	\$1,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
		Emergency No Limit	No Limit	No Limit	

**Note:** With input from Constellation NewEnergy—Gas Division and ACES Power Marketing.

**REDACTED**

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**East Kentucky Power Cooperative, Inc.**  
**Natural Gas Authority Matrix**  
**Future Physical & Financial Gas Purchases**  
**Per Calendar Year**

Title	Product	Quantity MMBtu/Day	Price \$/MMBtu	Total Dollars	Approval/Review
Board of Directors	Natural Gas \$/MMBtu	Unlimited	Unlimited	Unlimited	Unlimited
F&PS Committee	Natural Gas \$/MMBtu	800,000/mo. <= 3 years	Unlimited	\$48,000,000	Review by Board of Directors
President and CEO	Natural Gas \$/MMBtu	500,000/mo. <= 3 years	Unlimited	\$24,000,000	Review by F&PS Committee and Board of Directors
Sr. VP Power Supply	Natural Gas \$/MMBtu	500,000/mo. <= 1 year	Unlimited	\$10,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
Production Service Mgr.	Natural Gas \$/MMBtu	300,000/mo. <= 3 mos.	Unlimited	\$5,000,000	Review by Sr. VP Power Supply, President & CEO, F&PS Committee, and Board of Directors

**Note:** With input from Constellation NewEnergy—Gas Division and ACES Power Marketing.

**REDACTED**

## APPENDIX 5

East Kentucky Power Cooperative, Inc.  
New Commodities, Products, Instruments or Locations Process

A new product is a commodity not previously traded by East Kentucky Power Cooperative, Inc.. A new instrument or location is a financial derivative instrument or participation in a geographic market that is sufficiently different from the slate of instruments and markets previously approved by the Risk Oversight Committee (ROC) in that it requires different systems, operational procedures or accounting treatment. Examples of new instruments would include the use of derivatives with different risk characteristics or the use of derivatives to implement different business strategies or goals. New instruments or locations would also include those instruments or locations that may be traded on a "one-off" basis, which would be implementation of a derivative instrument or entry into a commodity market that, despite the anticipation of being transacted just once, would still fit the definition of a new instrument or location.

The purpose of defining a process for the introduction of a new product, instrument or location is to ensure that the exposures associated with them are thoroughly reviewed and understood by the ROC. The ROC must approve the use of all new products, instruments or locations prior to execution of any such trade using the process defined below:

- a) Product, Instrument or Location Proposal - The proposal is the responsibility of the person or business group proposing the transaction. The proposal should address the business need, risks, controls, valuation methodology, accounting methodology, operations workflow/methodology, and assessment of legal and regulatory issues.
- b) ROC Review - The independent risk function will perform a review on behalf of, and make a recommendation to, the ROC on the benefits and risks of the new product, instrument or location. The ROC will assess these along with the proposal and make a determination whether to add the product, instrument or location to the approved list.
- c) Approval (Pilot Program) - ROC may approve limited use of the product or instrument, to insure that proper controls are in place to monitor the activity. The ROC may approve a product or instrument without instituting a Pilot Program, if the product or instrument is going to be used once (one off) where it would not be prudent to test it in a shorter time frame or smaller quantity, due to constraints such as liquidity or length of term of product. The ROC will use more scrutiny in approval of one-off instruments or products.



Amendments to New Commodities, Products, Instruments or Locations  
Guidelines

From time to time it may be necessary to make changes to this process.  
Amendments to this process are to be allowed with the signed approval of the  
Chairman of the ROC.

**APPROVAL OF PROCESS**

Accepted as the New Commodities, Products, Instruments or Locations  
Process of East Kentucky Power Cooperative, Inc., this \_\_\_\_ day of  
\_\_\_\_\_, 2007:

\_\_\_\_\_  
Chairman of EKPC Audit Committee  
Serving as the Risk Oversight

East Kentucky Power Cooperative, Inc.  
Energy Risk Management Credit Policy**1.1. Policy**

Managing credit exposure is an important component in overall risk management. Credit risk is defined as the potential loss East Kentucky Power Cooperative, Inc. (EKPC) could incur as a result of non-payment or non-performance by a counterparty. The amount of credit risk in a trading portfolio can be measured, monitored and mitigated in order to maintain the level of credit risk authorized by EKPC.

The objective of credit risk management is to preserve the capital and liquidity of EKPC by establishing procedures that define the determinants for granting open lines of credit and managing counterparty credit exposure. The intent of these policies and procedures is to reduce counterparty default risk to its lowest acceptable level.

Forms of credit risk are:

Payment Risk which is the cost exposure to the value of accounts receivable and accrued receivables (delivered but not invoiced).

Performance (mark to market) Risk which is the cost exposure of replacing the contractual obligations of open contracts in the relevant market place.

As part of risk management, credit risk management is a control and oversight activity. It must remain independent from the trading activity, but work closely with the business to ensure that credit policies are implemented and maintained.

**1.2 Counterparty Credit Standards**

It is expected that default risk will increase as the term of a transaction increases. Therefore, EKPC will expect a higher indication of the creditworthiness of a counterparty for transactions of extended term.

### 1.2.1 Counterparty analysis

The creditworthiness of each counterparty must be determined through a fundamental analysis of the counterparty's financial and operational condition. The credit analysis incorporates two basic components, a business profile (qualitative analysis) and a financial profile (quantitative analysis). A credit limit and a term limit are established as a result of this due diligence process. This entire process should be repeated for each counterparty at least annually and also at any time when events or circumstances indicate that a counterparty's creditworthiness may have deteriorated or improved significantly.

The credit analysis of each counterparty is to be performed by the Credit Department of ACES Power Marketing, LLC ("APM") and submitted with recommendations regarding credit limits to EKPC for approval. The point of contact for EKPC is the Finance and Risk Management Manager or his designee. Formal credit files are to be maintained at the offices of APM.

### 1.2.2 Forward approvals

Counterparties that have an issuer rating or a rating on long term senior unsecured debt of at least BB from Standard & Poor's or Ba2 (or its equivalent) from Moody's may qualify for the extension of an open line of credit from EKPC for transactions of a duration of up to 1 week forward. In the event that the counterparty does not have rated debt, the Director of Credit of APM may determine an implied rating.

Counterparties that have an issuer rating or a rating on long term senior unsecured debt of at least BBB- from Standard & Poor's or Baa2 from Moody's may qualify for the extension of an open line of credit from EKPC for transactions of a duration beyond one week forward.

### 1.2.3 Credit approvals

Counterparties may qualify for the extension of an open line of credit from EKPC by providing audited financial statements that indicate sufficient financial strength to allow for the extension of an open line of credit and at least one of the following:

1. a.) An issuer rating or a long term unsecured debt rating of at least BB from Standard & Poor's or Ba2 from Moody's for transactions up to one week forward.
- b.) An issuer rating or a long term unsecured debt rating of at least BBB- from Standard & Poor's or Baa2 from Moody's for transactions beyond one week forward.

2. Trade and banking references that indicate the company has sufficient history and adequate credit facilities to allow for the issuance of an open line of credit.

#### 1.2.4 Credit enhancements

Counterparties that do not qualify for an extension of an open line of credit must post at least one of the following types of security prior to the execution of a transaction:

- Corporate Guarantee: Counterparties may provide a guarantee from a third party that meets the creditworthiness requirements noted above. If a counterparty provides such a guarantee, the amount of any open line of credit will be determined through an analysis of the financial statements of the guarantor. All guarantees must be in a format that is acceptable to EKPC.
- Letter of Credit: Counterparties may provide an irrevocable letter of credit for an amount sufficient to cover the related transactions. Preferably, Letters of credit will be a term of at least 45 days beyond the term of the most forward transaction. Letters of credit must be issued by a bank or a financial institution with a rating of at least A from Standard & Poor's or A2 from Moody's.
- Prepayment (margin): Counterparties may provide a prepayment or cash margin deposit that is sufficient to cover the related transactions.

### 1.3. Determination of the Amount of an Open Line of Credit

Once a counterparty has been determined to be creditworthy, an open line of credit may be extended up to 5% of tangible net worth, or, in the case of governmental agencies or non-profit wholesale power suppliers, up to 10% of their average free cash flow for the prior two years.

The maximum amount of any open line of credit to be extended to any counterparty shall not exceed \$5,000,000 unless approved in writing by the President/CEO of EKPC.

- Available Credit is the dollar amount remaining open on the credit limit approved for a counterparty.

- Credit Limit is defined as the sum of:
  - a. the approved amount of the unsecured credit limit **plus**
  - b. the approved guaranteed amount of any guarantee(s) held **plus**
  - c. the value of any letter of credit or cash collateral held **plus**
  - d. the approved value of any other type of collateral held

### 1.3.1. Risk rating

APM will use the unsecured ratings of Standard & Poor's or Moody's when available. Otherwise, an internal rating will be calculated based on APM's credit model that will assign a rating similar to Standard & Poor's.

Each counterparty will be assigned a risk rating based on the results of the credit analysis. Each risk rating will be associated with a default probability. This risk rating system will closely correspond to a Standard & Poor's based rating system with ratings between A and CCC. The Director of Credit of APM has the authority to assign risk ratings based on the established credit procedures.

### APM's Internal Counterparty Rating System

For unrated counterparties two internal rating models are utilized. One credit scoring model is designed for public counterparties. This includes generation and transmission cooperatives, distribution cooperatives, municipalities, government agencies, public power agencies, and other not-for-profit counterparties. The second credit scoring model is used for assigning a rating to non-public counterparties or for profit counterparties. The purpose of two separate credit scoring models is to provide recognition of these two distinct business models and the drivers that meaningfully distinguish and measure the financial and credit risks of each. Each model measures two sets of risk factors: qualitative and financial indicators.

Each model assigns a composite credit score from 1 (best) to 6 (worst) that corresponds to a credit rating formatted to mimic the S&P corporate credit rating scale as evidenced in Table 1 for both public and non-public counterparties. Table 1 is included in Addendum 1.

#### **1.4. Counterparty Credit Exposure**

The total amount of counterparty's credit exposure is defined as the sum of:

1. The dollar value of all amounts invoiced and unpaid.
2. The dollar amount of all deliveries that have not yet been invoiced.
3. The marked to market value of all forward trades.
4. Less all offsetting amounts that are supported by legally binding netting agreements or EEI Agreements.

##### **1.4.1 Grouping of counterparties**

Counterparties sharing a common parent or affiliation will be assigned to a group. A credit limit will be assigned to the group with individual credit limits being assigned to each counterparty within the group. The aggregate credit limit of these counterparties will not exceed the established group limit.

#### **1.5. Counterparty Credit Reviews**

New counterparties are to be evaluated for creditworthiness by the credit risk management department prior to any transactions.

Existing counterparties are to be formally reviewed and documented by the credit risk management department on a yearly basis at a minimum. More frequent reviews may be necessary, at the discretion of the credit risk management department or at the request of EKPC.

#### **1.6. Credit File Documentation**

Credit analysis, approvals and denials must be documented in writing and all counterparty information shall be contained in formal credit files which are maintained at the offices of APM. These credit files are expected to contain audited financial statements and a credit review analysis report with a credit limit recommendation signed by the Director of Credit of APM. These files should also contain as much of the following as possible:

- At least the two most recent years of audited financial statement information.
- Trade and bank references.
- Rating information as published by Standard & Poor's or Moody's.

- General industry information.
- Copies of all correspondence with the counterparty.
- Copies of any letters of credit, guarantees, netting agreements, or other collateral.

**1.7. Approval Authority**

Levels of authorization at EKPC to approve credit limits is the CFO/VP of Finance at \$5,000,000.

Any increase to the existing open line of credit must have the written approval of the Manager of Finance and Risk Management or his designee.

Entering into unsecured transactions with a counterparty that will cause the total credit exposure to that counterparty to exceed the sum of its credit line plus any collateral held will not be approved. These transactions must be pre-approved, in writing, by the CFO/VP of Finance of EKPC. All such transactions in violation of this policy will be reported to the Risk Management Committee of APM and to EKPC's CFO/VP of Finance or his designee in a timely manner.

**1.7.1 Temporary Credit Limit Authorizations**

In cases where APM is in a position that mandates trading with a counterparty above the counterparty's approved credit limit threshold, the following approval policy is in effect for the officers of APM and EKPC:

SVP & CRO (APM)	Approval authority up to 110% of approved credit limit
SVP and CFO (APM)	Approval authority up to 110% of approved credit limit
President and CEO (APM)	Approval authority up to 120% of approved credit limit
CFO (EKPC)	Approval authority above 120% of approved credit limit

Temporary credit limit authorizations remain in effect until either the credit exposure falls below the approved credit limit or all financial responsibility pertaining to the transaction that required a temporary credit limit has been satisfied. APM will immediately notify CFO/VP of Finance of EKPC or his designee of any transactions that is above the counterparty's approved credit limit.

## 1.8 Credit Controls

An approved list of trading counterparties noting credit limits and available credit is periodically distributed to all traders either via e-mail or through the APM website.

A trading restriction report noting counterparties that are credit approved on a secured basis or not approved for trading under any scenario is periodically distributed to all traders, members and customers via e-mail.

Under no circumstances should a trade be executed with a counterparty that does not appear on the approved list of trading counterparties unless the trade has been approved, in writing by either the Director of Credit of APM or the CFO/VP of Finance of EKPC or his designee.

No credit sleeving transactions shall be executed. This policy does not prohibit a member of APM being positioned between EKPC and a counterparty to bridge a contract gap with a counterparty, and vice versa.

The Director of Credit of APM is to provide general oversight over the credit function, reporting any credit issues to the Risk Management Committee of APM and to EKPC's CFO/VP of Finance or his designee.

No new transactions are to be entered into with counterparties that have exceeded their credit limits except as they may mitigate (offset) existing exposure, or, if those transactions have prior approval as specified in Section 1.7.1. Any new unsecured, unauthorized transactions entered into with a counterparty that has a credit exposure in excess of its assigned credit limit will subject the trader to disciplinary action and may be grounds for termination.

## 1.9. Receivables/Payables Management

Unless otherwise instructed by EKPC, APM will, in a timely manner, post all payments received and sent by EKPC upon receipt of this information from EKPC.

As is generally accepted accounting practice, if necessary, a reserve will be established to allow for potential bad debts. This reserve will be determined jointly by the Director of Credit of APM and the CFO/VP of Finance of EKPC.



### 1.10. Credit Risk Mitigation

In negotiating agreements and ongoing contractual terms with counterparties, EKPC shall strive to include prudent industry practice credit provisions. These shall include, but are not limited to, explicit netting agreements and provisions granting EKPC the right to call for and receive collateral in the event the counterparty exceeds its approved credit limit or suffers a material adverse credit event.

### 1.11 Collateral Management

APM is authorized to give credit information on EKPC to counterparties in order to establish credit approvals. EKPC will coordinate with APM regarding the issuance or receipt of collateral to support a transaction. Any collateral that is received will be held by EKPC.

### 1.12 Amendments to the Credit Risk Policy and Procedures

From time to time it may be necessary to make changes to these policies and procedures. Amendments to these policies and procedures are to be allowed with the signed approval of the signatories listed below:

**Accepted as the Credit Risk Policy and Procedures of East Kentucky Power Cooperative, Inc. this \_\_\_\_ day of \_\_\_\_\_, 2007:**

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Robert M. Marshall, President & CEO

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David G. Eames, CFO/VP of Finance

Addendum 1 – Table 1 Public Counterparties

APM Internal Credit Scoring/Rating Models

**Calculation of Composite Credit Score and APM’s Internal Rating for Public Counterparties (including G&Ts & Munis)**

Counterparty Name - ABC Coop

	Score	Weight
Estimated Qualitative Score		60%
Financial Score		40%
Composite Score		100%

Table 1 for G&Ts	
Score	Internal Rating
1 to 1.33	AAA
1.34 to 1.66	AA+
1.67 to 2	AA
2.01 to 2.33	AA-
2.34 to 2.66	A+
2.67 to 3	A
3.01 to 3.33	A-
3.34 to 3.66	BBB+
3.67 to 4	BBB
4.01 to 4.33	BBB-
4.34 to 4.66	BB
4.67 to 5	CCC
>5	CCC
Bankruptcy	D

Internal Rating per Table 1

Financial Data (in 000s)	Score
Current Ratio	0.00
Working Capital	0,000
TNW	00,000
EBIT Int. Coverage	0.00
EBITDA Int. Coverage	0000
Debt:Equity	0000
Debt:Cap.	.00
Pre-Tax ROE	00%

**Computation of Financial Score**

1. Financial Score is composed of three Financial Factors: Liquidity, Profitability, Leverage
2. Financial Scoring Ranges Table show the ranges for each ratio/computation, and the associated Score.
3. **Liquidity Raw Score** = Sum of Scores (Current Ratio; Working Capital; TNW; EBIT Int. Coverage; EBITDA Int. Coverage).
- Leverage Raw Score** = Sum of Scores (Debt/Equity, Debt/Capital).
- Profitability Raw Score** = Sum of Scores (Pretax ROE)
4. The Raw Score / # \* Weight = Weighted Score for Factor

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Financial Score Calculation		Raw Score	#	Weight	Weighted Score
1	Liquidity	00	5	0.50	0.00
2	Leverage	00	2	0.40	0.00
3	Profitability	0	1	0.10	0.00
Total		00		1.00	0.00

Financial Data (in 000s)	Score	
Current Ratio	0.00	0
Working Capital	000,000	0
TNW	00,000	0
EBIT Int. Coverage	0.00	0
EBITDA Int. Coverage	0.00	0
Debt:Equity	0.00	0
Debt:Cap.	0.00	0
Pre-Tax ROE	00%	0

**Public Sector Financial Scoring Ranges**

**Liquidity**

Current Ratio			Working Capital (\$000s)		
0.00	0.30	6	<100	100.00	6
0.30	0.80	5	100.00	5000.00	5
0.80	1.30	4	5000.00	10000.00	4
1.30	1.60	3	10000.00	25000.00	3
1.60	1.90	2	25000.00	40000.00	2
>1.90		1	>40000		1

Tangible Net Worth (\$000's)			EBIT Interest Coverage		
<0	15000	6	<1	1.000	6
15001	40000	5	1.001	1.100	5
40001	65000	4	1.101	1.200	4
65001	75000	3	1.201	1.300	3
75001	85000	2	1.301	1.400	2
>85000		1	>1.4		1

EBITDA Interest Coverage		
<1.7	1.700	6
1.701	2.000	5
2.001	2.300	4
2.301	2.500	3
2.501	2.700	2
>2.7		1

**Leverage**

Total Debt/Equity			Total Debt/Tot. Capitalization		
0.000	0.100	1	0.000	0.100	1
0.101	2.300	2	0.101	0.700	2
2.301	3.400	3	0.701	0.800	3
3.401	7.900	4	0.801	0.900	4
7.901	12.400	5	0.901	1.000	5
>12.4		6	>1		6

**Profitability**

Pre-tax Return on Equity		
<1.3%	1.300%	6
1.301%	3.400%	5
3.401%	5.500%	4
5.501%	12.600%	3
12.601%	19.700%	2
>19.7%		1

**Financial Score Ratio Definitions**

a. Current Ratio

b. Tangible Net Worth = Equity or Patronage Capital – Intangibles- Goodwill – Net Value of LT Trading Book – Nuclear Decomm. Fund –

c. EBITDA Interest Coverage = (Depreciation & Amort. + Net Interest Expense + Income Taxes (if applic.) + Net Income)/Net Interest Expense

d. Working Capital

e. EBIT Interest Coverage = (Net Interest Expense + Income Taxes (if applic.) + Net Income)/Net Interest Expense

a. Total Debt to Equity

b. Total Debt to Capitalization = Total Debt/(Total Debt + Total Equity)

3. Profitability Scoring Group – this indicator will comprise 10% of your Financial Score

a. Return on Equity = (Income Taxes (if applic.) + Net Income)/Total Equity

**General Categories for Public Sector Qualitative Assessment**

1. Rates/Regulations - how easy, how timely rates can be changed
2. Risk Management - G&T's risk management program - formalized?, fuel adjustments?, fuel supply contracts, per cent generation purchases, etc.
3. Legal - bond indentures, member agreements, power supply contracts, rating change impact, etc.
4. Demographics - economic health of service area, growth, revenue make-up between industrial, commercial, or residential, etc.
5. Agency Ratings - if no rating - why? If rating other than S&P or Moodys what is it?
6. Other - to address other pertinent factors that may impact creditworthiness of G&T

The above topics are intended to be generic and are not all-inclusive. The intent is to allow the analyst to understand the unique business drivers for each non-rated G&T.

The qualitative score will range from 6 (worst) to 1 (best).

**Addendum 1 – Table 1 Non-Public Counterparties**

**Calculation of Composite Credit Score and ACES Internal Rating for Non-Public Counterparties**

Counterparty Name -		XYZ Public Svc		<b>Table 1 for NonPublic</b>	
		<b>Score</b>	<b>Weight</b>	<b>Score</b>	<b>Internal Rating</b>
Estimated Qualitative Score			40%	1 to 1.33	AAA
Financial Score			60%	1.34 to 1.66	AA+
Composite Score			100%	1.67 to 2	AA
				2.01 to 2.33	AA-
				2.34 to 2.66	A+
				2.67 to 3	A
				3.01 to 3.33	A-
				3.34 to 3.66	BBB+
				3.67 to 4	BBB
				4.01 to 4.33	BBB-
				4.34 to 4.66	BB
				4.67 to 5	CCC
				>5	CCC

Internal Rating per Table 1	
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Financial Data	Score
EBIT Int. Coverage	0.00
Tot. Debt/Tot. Capitalization	.000
CFFO/Tot. Debt	0.00
Tangible Net Worth (\$000s)	00,000

**Computation of Financial Score**

Financial Score Calculation		Raw Score	Weight	Weighted Score
1	EBIT Interest Coverage	0	35%	0
2	Tot. Debt/Tot. Capital.	0	30%	0
3	CFFO/Tot. Debt	0	25%	0
4	Tangible Net Worth	0	10%	0
	Total	0	100%	0

Financial Data	Score
EBIT Int. Coverage	0.00
Tot. Debt/Tot. Capitalization	.00
CFFO/Tot. Debt	0.00
Tangible Net Worth (\$000s)	00,000

**Non-Public Sector Financial Scoring Ranges**

EBIT Interest Coverage			Total Debt/Total Capital		
<.4x	.4x	6	75.1%	>75%	6
0.41x	1.5x	5	61.1%	75.0%	5
1.51x	2.6x	4	54.1%	61.0%	4
2.61x	3.4x	3	48.1%	54.0%	3
3.41x	3.9x	2	20.1%	48.0%	2
3.91x	>3.91x	1	<20%	20.0%	1

Tangible Net Worth (\$millions)			CFFO/Total Debt		
<500	500	6	<8%	8.00%	6
501	1200	5	8.01%	10.00%	5
1201	1800	4	10.10%	18.00%	4
1801	3500	5	18.01%	23.00%	3
3501	7000	2	23.01%	28.00%	2
>7000		1	>28%		1

Financial Score Ratio Definitions

1. **EBIT Interest Coverage** = (Tot. Interest Expense + Income Taxes + Net Income) / Tot. Interest Expense

2. **Total Debt to Capitalization** = Total Debt / (Total Debt + Total Equity)

3. **Cash Flow from Operations/ Total Debt**

Cash flow is directly from the Cash Flow Statement - total cash flow from operations (excludes cash flows from financing and investing activities)

4. **Tangible Net Worth** = Equity or Patronage Capital – Intangibles- Goodwill – Net Value of LT Trading Book – Nuclear Decomm. Fund – High Risk Affiliate investment or receivable - Restricted Cash that is not a deduction or offset to a specific liability

General Categories for Qualitative Assessment

1. Rates/Regulations - how easy, how timely rates can be changed, regulated or unregulated business, etc.
2. Risk Management - counter party's risk management program - formalized?, fuel adjustments?, fuel supply contracts, per cent generation purchases, etc.
3. Legal - bond indentures, LT agreements, power supply contracts, rating change impact, etc.
4. Demographics - economic health of service area, growth, revenue make-up between industrial, commercial, or residential, etc.
5. Agency Ratings - if no rating - why? If rating other than S&P or Moody's what is it?, outlook, etc.
6. Other - to address other pertinent factors that may impact creditworthiness of counter party

The above topics are intended to be generic and are not all-inclusive. The intent is to allow the analyst to Understand the unique business drivers for each non-rated counter party. The qualitative score will range from 6 (worst) to 1 (best).

**Board Agenda Item**

JUNE

**TO:** Fuel and Power Supply Committee and Board of Directors

**FROM:** Robert M. Marshall *Robert M. Marshall*

**DATE:** June 1, 2007

**SUBJECT:** Ratification of SO<sub>2</sub> Emission Allowance Purchases (Executive Summary)

**KEY MEASURE(S)** This Supports Reliable and Competitive Energy Costs

**Background**

East Kentucky Power Cooperative, Inc., (“EKPC”) is provided SO<sub>2</sub> and NO<sub>x</sub> emission allowances from the Environmental Protection Agency at the beginning of each year. EKPC is required to purchase allowances to cover its actual emission levels that exceed these allocations. Based on the attached memo approved by the President and Chief Executive Officer, 5,000 SO<sub>2</sub> Vintage 2007 allowances were purchased for a total cost of \$2,716,250.

**Justification and Strategic Analysis**

These purchases of SO<sub>2</sub> emission allowances are necessary to cover EKPC’s emissions for 2007 and can be used in 2008 if EKPC ends the year with an excess of emission allowances. These purchases were made at \$543.25/ton, and the cost has since increased to approximately \$610/ton. A \$2,000/ton fee, in addition to purchasing the needed allowances, is assessed for failure to have emission allowances to match actual emission levels. These purchases will enable EKPC to generate power at the lowest possible cost for its Member Systems and supports EKPC’s key measures for reliable and competitive energy costs.

**Recommendation**

Management recommends that the Board of Directors ratify the action taken by the President and Chief Executive Officer on May 2, 2007, to purchase 5,000 tons of SO<sub>2</sub> Vintage 2007 allowances for a total cost of \$2,716,250 as detailed herein and on the attached memo.



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**TO:** Bob Marshall

**FROM:** Jim Lamb (Original Initialed)

**DATE:** May 2, 2007

**SUBJECT:** Purchase of SO2 Emission Allowances

**KEY MEASURE(S):** This Supports Reliable and Competitive Energy Costs

## **Background**

East Kentucky Power Cooperative, Inc. ("EKPC") is provided SO<sub>2</sub> and NO<sub>x</sub> emission allowances from the Environmental Protection Agency ("EPA") at the beginning of each year. EKPC is required to purchase allowances to cover its actual emission levels that exceed these allocations. EKPC needs an additional 5,000 SO<sub>2</sub> allowances to meet its projected emissions for 2007. EKPC has arranged the purchase of 5,000 SO<sub>2</sub> Vintage 2007 allowances through two brokers at a weighted average cost of \$543.25 per allowance plus \$.50 per allowance for the broker fees for a total cost of \$2,716,250.

## **Justification and Strategic Analysis**

Title IV of the Clean Air Act, amended in 1990, required lower levels of sulfur dioxide emissions and allowed for the purchase and sale of SO<sub>2</sub> emission allowances to achieve this reduced level. A \$2,000/ton fee, in addition to purchasing the SO<sub>2</sub> allowances, is assessed for failure to meet these emissions level. This purchase of SO<sub>2</sub> emission allowances is necessary to cover SO<sub>2</sub> emissions for 2007 and will enable EKPC to generate power at the lowest possible cost for its Member Systems. This recommendation supports EKPC's key measures for reliable and competitive energy costs.

## **Recommendation**

Your approval is requested to enter into a contract with Constellation Energy Commodities Group ("Constellation") for the purchase of 2,500 Vintage 2007 SO<sub>2</sub> allowances at a price of \$545 per allowance plus a broker fee to Evolution Markets of \$.50 per allowance; a second contract with Public Service of New Mexico for the purchase of 2,000 Vintage 2007 SO<sub>2</sub> allowances at a price of \$540 per allowance plus a broker fee to TFS Energy of \$.50 per allowance; and a third contract with

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Constellation for the purchase of 500 Vintage 2007 SO2 allowances at a price of \$547.50 per allowance plus a broker fee to TFS Energy of \$.50 per allowance. An action item will be presented to the Board of Directors at its June meeting to ratify the approval of these purchases.

**Approved by:** Original Approved

**Date:** Original Dated May 2, 2007

**EAST KENTUCKY POWER COOPERATIVE, INC.  
MINUTES OF BOARD MEETING  
JULY 10, 2007**

A regular meeting of the Board of Directors of East Kentucky Power Cooperative, Inc. ("EKPC") was held at the Headquarters Building, 4775 Lexington Road, Winchester, Kentucky, on Tuesday, July 10, 2007, at 10:30 a.m. EDT, pursuant to proper notice.

Chairman Wayne Stratton called the meeting to order. E. A. Gilbert gave the invocation. The minutes were kept under the supervision of Secretary A. L. Rosenberger. The secretary took the roll call with the following directors present:

Michael Adams	Licking Valley
Fred Brown	Jackson
P. D. Depp	Taylor County
Danny Divine	Inter-County
E. A. Gilbert	Blue Grass
Elbert Hampton	Cumberland Valley
Hope Kinman	Owen
Jimmy Longmire	Salt River
Wade May	Big Sandy
Bill Rice	Grayson
A. L. Rosenberger	Nolin
Randy Sexton	Farmers
William Shearer	Clark Energy
Rick Stephens	South Kentucky
Wayne Stratton	Shelby
Lonnie Vice	Fleming-Mason

Also present was Board Counsel J. B. Johnson.

**ANNOUNCEMENTS**

- Welcomed Mike Williams, Senior VP of Blue Grass Energy.
- Certificate of Recognition – President and CEO Bob Marshall recognized Claudia Embs, Executive Assistant, for 30 years of EKPC service.

**BOARD MINUTES**

On motion of Wade May, seconded by Jimmy Longmire, and passed, the June 11-12, 2007, board meeting minutes were approved as modified by adding under 'Report of Officers' a notation of the presentation provided regarding the Smith Station Combustion Turbines.

**ADOPTION OF AGENDA**

The Agenda, as mailed, was adopted.

## EXECUTIVE SESSION

At 10:35 a.m., Chairman Stratton requested that the Board go into Executive Session and Lonnie Vice made the motion, which was seconded and passed. Those remaining included the Directors, Alternate Directors, Board Counsel J. B. Johnson, Bob Marshall, Executive Staff, Roger Cowden, and Craig Johnson. Della Damron stayed to assist the Secretary with the minutes. Also present were Jay Holloway of Hunton & Williams and, via teleconference, Chet Thompson of Crowell & Moring.

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The minutes of the remainder of the **Executive Session** are included in the separate July 10, 2007, Executive Session Minutes of the regular Board meeting.

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At 11:40, Chairman Stratton asked for a motion, made by Randy Sexton, seconded by Danny Divine, and passed, to come out of Executive Session and continue with the regular board meeting.

## REPORT OF THE OFFICERS (Continued)

### Report of the President and CEO (Continued)

Warren RECC Unwind Update – Bob Marshall updated the Board, by way of an overhead, and discussed the Warren RECC/EKPC settlement charges. The topic was reviewed and discussed. Although no formal action is required, Legal suggested the Board approve the further actions of the President and CEO. Therefore,

A motion was made by E. A. Gilbert, seconded by Jimmy Longmire and passed to approve and ratify the Warren RECC/EKPC settlement as presented.

North Star Initiative Project – Mr. Marshall reviewed his recent and ongoing meetings with EKPC employees with regard to this project. Included in his discussions, he has informed the employees of various issues, including no guarantee there won't be layoffs or raises this year.

Future Generation Partnering Opportunities – Mr. Marshall feels some assistance will be needed by an outside firm to help guide EKPC through the process of partnering efforts. An Atlanta firm has offered, free of charge to EKPC, to present a seminar on partnering

REDACTED

efforts. Information will be provided to those interested in attending this seminar once further information is obtained.

#### Report of the Secretary-Treasurer

Secretary/Treasurer A. L. Rosenberger reported on his review of directors' fees and expenses for the second quarter of 2007, which indicated that all fees and expenses were in compliance with Board Policy No. 111, Compensation of Directors. The written report was included in the Board book of each Director.

### AUDIT COMMITTEE ACTION ITEMS

#### Revised Energy Risk Management Matrices

After review of the applicable information, a motion was made by Bill Shearer and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc., ("EKPC") is provided SO<sub>2</sub> and NO<sub>x</sub> emission allowances from the Environmental Protection Agency at the beginning of each year and EKPC is required to purchase allowances to cover its actual emission levels that exceed these allocations;

**Whereas**, EKPC faces penalties of \$2,000 per ton for failure to purchase allowances to cover its actual emission levels that exceed the allocations;

**Whereas**, Current year and future year allowances are purchased by EKPC in order to levelize the emission cost;

**Whereas**, Adding the emission allowance matrix to the Energy Risk Management Policy and making authority revisions to the policy will provide appropriate authority to purchase and hedge emission allowances to levelize the cost, will enable EKPC to generate power for the lowest cost possible for its member systems, and support EKPC's key measures for reliable and competitive energy costs; and

**Whereas**, EKPC management and the Audit Committee have reviewed the attached Energy Risk Management matrices revisions and find them to be reasonable; now, therefore, be it

**Resolved**, That the EKPC Board of Directors hereby approves the attached Energy Risk Management matrices to include authority revisions and the inclusion of the new emission allowance matrix.

REDACTED

## AUDIT COMMITTEE INFORMATION ITEMS

No Audit Committee information or discussion items were brought before the Board.

## OPERATIONS, SERVICES AND SUPPORT ("OSS") COMMITTEE ACTION ITEMS

### Severance Bonus for Donnie Crum

After review of the applicable information, a motion was made by P. D. Depp and, there being no further discussion, passed to approve the following:

**Whereas**, The East Kentucky Power Cooperative, Inc. ("EKPC") Board of Directors ("Board") deems it fitting to recognize the distinguished service of its members to EKPC;

**Whereas**, Donnie Crum, as a member from June 11, 2002, to June 12, 2007, and representing Grayson Rural Electric Cooperative Corporation, has given this Board five years of dedicated and distinguished service;

**Whereas**, Pursuant to its original resolution of May 9, 1995, and most recent modification on March 19, 2002, the Board has determined that upon cessation of service from the Board, a regular director may receive a severance bonus in an amount commensurate with such director's service to the Board; and

**Whereas**, Management and the Operations, Services and Support Committee recommend that the Board set the severance bonus for Mr. Crum in accordance with said resolutions; now, therefore, be it

**Resolved**, That the Board hereby awards a severance bonus of \$4,000.00 to Donnie Crum for his service to EKPC.

## OSS COMMITTEE INFORMATION ITEMS

OSS Committee officers elected were: Chairman, P. D. Depp; Vice Chairman, Wade May; and Secretary, Randy Sexton.

## FUEL AND POWER SUPPLY ("F&PS") COMMITTEE ACTION ITEMS

### SO<sub>2</sub> Vintage 2007 Emission Allowances

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

REDACTED

**Whereas**, East Kentucky Power Cooperative, Inc., (“EKPC”) is provided SO<sub>2</sub> and NO<sub>x</sub> emission allowances from the Environmental Protection Agency at the beginning of the year, and EKPC faces penalties of \$2,000 per ton for failure to purchase allowances to cover its actual emission levels that exceed these allocations;

**Whereas**, The attached memo details the approval from the President and Chief Executive Officer for the purchase of 2,000 tons of SO<sub>2</sub> Vintage 2007 emission allowances at a total cost of \$1,291,000;

**Whereas**, These purchases will contribute to EKPC meeting its projected emission allowance level in addition to leveling the cost of allowances, enable EKPC to generate power for the lowest cost possible for its member systems, and support EKPC’s key measures for reliable and competitive energy costs; and

**Whereas**, EKPC management and the Fuel and Power Supply Committee have reviewed the President and Chief Executive Officer’s actions taken on June 7, 2007, and find them to be reasonable; now, therefore, be it

**Resolved**, That the EKPC Board of Directors hereby ratifies the actions taken by the President and Chief Executive Officer on June 7, 2007, and hereby approves the purchases of 2,000 tons of SO<sub>2</sub> emission allowances as detailed herein, in the attached approval memo, and in the Executive Summary.

Coal Supply Contract Amendment w/ B&N Coal, Inc.--Gilbert Unit (Unit 3), Spurlock Station

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc., (“EKPC”) has a 120,000 tons per year coal supply contract with B & N Coal, Inc., (“B & N”) that includes a market reopener that occurs between April 1, 2007, and July 31, 2007, to determine current market pricing for this contract;

**Whereas**, EKPC issued a written solicitation to possible suppliers for this coal in order to establish the current market pricing;

**Whereas**, EKPC negotiated with B & N a price reduction from \$1.366/MMBtu or \$30.60 per ton delivered to \$1.25/MMBtu or \$28 per ton delivered based on current barge rates, saving EKPC approximately \$1 million over the term of the contract;

**Whereas**, Under the negotiated terms, the annual tonnage commitment will increase from 120,000 tons to 156,000 tons, and additional market reopener language will be added to extend this contract an additional three years;

**Whereas,** The B & N contract has price escalations for fuel on 15 percent of the base contract price that will continue to adjust quarterly, and an inflation escalator on 85 percent of the base price that will continue to adjust annually;

**Whereas,** The recommended coal contract amendment will enable EKPC to continue to generate power for the lowest cost possible for its Member Systems and supports EKPC's key measures for reliable and competitive energy costs; and

**Whereas,** EKPC management and the Fuel and Power Supply Committee have reviewed the contract amendment terms and conditions, find them to be reasonable, and recommend the approval of a coal supply contract amendment with B & N; now, therefore, be it

**Resolved,** That the EKPC Board of Directors hereby approves a coal contract amendment with B & N based on the terms presented herein and in the Executive Summary; and the President and Chief Executive Officer, or his designee, is hereby authorized to execute said coal contract amendment.

Coal Supply Contract w/ Massey Coal Sales Co., Inc.--Gilbert Unit (Unit 3), Spurlock Station

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas,** East Kentucky Power Cooperative, Inc., ("EKPC") has a coal supply contract with B & N Coal, Inc., ("B & N") that includes a market reopener that occurs between April 1, 2007, and July 31, 2007;

**Whereas,** EKPC issued a written solicitation to establish current pricing for this coal;

**Whereas,** The evaluation of the responses revealed to the fuel process the pricing for Gilbert Unit ("Gilbert") quality coal was trending upwards;

**Whereas,** The most economical response of coal that meets the coal specifications of Gilbert was from Massey Coal Sales Company, Inc., ("Massey") at a delivered price of \$1.247/MMBtu;

**Whereas,** The next lowest price offered was \$1.374/MMBtu;

**Whereas,** Management utilized the Massey price to negotiate a price reduction on the current B & N contract and also negotiated a contract with Massey for the purchase of the coal offered by Massey;

**Whereas,** This negotiated contract will provide 7,500 tons per month to EKPC beginning July 10, 2007, and continuing through March 31, 2010;



**Whereas,** The delivered price of the coal will be \$1.247/MMBtu, using current transportation rates with a market reopener in December 2008;

**Whereas,** The recommended coal contract will enable EKPC to continue to generate power for the lowest cost possible for its Member Systems and supports EKPC's key measures for reliable and competitive energy costs; and

**Whereas,** EKPC management and the Fuel and Power Supply Committee have reviewed the contract terms and conditions, find them to be reasonable, and recommend the approval of a coal supply contract with Massey; now, therefore, be it

**Resolved,** That the EKPC Board of Directors hereby approves a coal contract with Massey based on the terms presented herein and in the Executive Summary; and the President and Chief Executive Officer, or his designee, is hereby authorized to execute said coal contract.

#### F&PS COMMITTEE INFORMATION ITEMS

F&PS Committee Chairman Jimmy Longmire reported that F&PS officers elected were: himself as Chairman; Vice Chairman, Mike Adams; and Secretary, Hope Kinman.

Mr. Longmire also reported that the Committee approved two coal supply purchase orders as follows:

- James River Coal Sales, Inc. – Gilbert Unit at Spurlock Power Station, and
- SSM Coal Americas, LLC – Spurlock Power Station Unit No. 1.

#### POWER DELIVERY ("PD") COMMITTEE ACTION ITEMS

##### Close-Out of Contract 0618X w/ L. E. Myers Co.—Construction of Cranston-Rowan Transmission Line

After review of the applicable information, a motion was made by Bill Shearer and, there being no further discussion, passed to approve the following:

**Whereas,** The East Kentucky Power Cooperative, Inc. ("EKPC") Board of Directors, ("Board") at its October 3, 2006 meeting, authorized the award of a contract for the construction of the Cranston-Rowan 138 kV Transmission Line.

**Whereas,** This project was awarded to The L.E. Myers Company under Contract 0618X based on a firm unit price totaling [REDACTED] exclusive of owner-furnished materials and was completed, with two change orders, for the amount of [REDACTED];

**Whereas,** The L.E. Myers Company has completed this project and fulfilled all of the terms and conditions of Contract 0618X and is entitled to and has earned the balance remaining on this contract of [REDACTED];

**Whereas**, EKPC Management and the Power Delivery Committee recommends close-out of this contract for the amount of [REDACTED] and a final payment to The L.E. Myers Company of [REDACTED]; and

**Whereas**, This recommendation supports the delivery of facilities at a competitive cost, on time, and of good quality and the reliable delivery of power to our Members; now, therefore, be it

**Resolved**, That the Board approve the close-out of Contract 0618X for the sum of [REDACTED] and authorizes the President and Chief Executive Officer or his designee, to make final payment of [REDACTED] to The L.E. Myers Company and to execute all documents necessary to close-out this contract.

#### **PD COMMITTEE INFORMATION ITEMS**

PD Committee Chairman Bill Brashear reported that the Committee heard several update reports by Mary Jane Warner, and Jim Lamb provided a benchmark of power plant capital costs. Bob Marshall talked with the Committee regarding ongoing sharing of ideas with other companies.

#### **MEMBER SYSTEM NEEDS**

No member system needs were brought before the Board.

#### **EKPC DIVISION MONTHLY REPORTS**

Chairman Stratton noted the monthly reports as included in the Board books.

Member System Board Meetings – Mr. Marshall reported that he and most of Executive staff attended Fleming-Mason's most recent board meeting and plan to attend South Kentucky's next board meeting. He encouraged any member wishing their attendance to let him know and provide any issues wishing to be addressed.

Community Leader Meetings – Two community leaders meetings are scheduled as follows:

- July 25 at Maysville regarding Spurlock. An invitation was extended to Chris Perry and Lonnie Vice to attend and any of their board members, and
- July 30 in Pulaski County regarding the issues at Cooper Station. He extended the same invitation to Allen Anderson and his board members.

#### **AGENDA ITEMS FOR NEXT AGENDA**

No agenda items for the next agenda were brought before the Board.

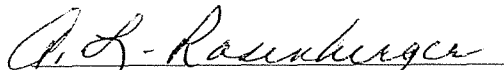
**OTHER BUSINESS**

Envision Annual Meeting – This meeting will be held during lunch today.

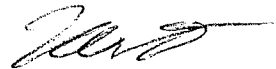
Board Officers of EKPC/Big Rivers/Hoosier – Mr. Stratton noted that the board officers of these three will be meeting August 7, 2007, for an idea-sharing session. The Board will be updated on this and any other sessions that may take place.

No other business was brought before the Board.

There being no further business, the EKPC Board meeting was adjourned at 12:08 p.m.

-----  
  
A. L. Rosenberger, Secretary

Approved:



R. Wayne Stratton  
Chairman of the Board

Date: August 14, 2007

EKPC Board Minutes for 7/10/2007  
Attachment A, Page 1 of 5

**CONFIDENTIAL**  
**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**EMISSIONS AUTHORITY MATRIX**  
**LIMITS PER TRANSACTION**  
**EFFECTIVE 7/10/2007**

Title	Product	Per Transaction Limits (up to)			
		Term	Volume Tons (2)	\$/Ton (1)	Total \$
EKPC Board of Directors	Emission Allowances	Unlimited	Unlimited	Unlimited	Unlimited
EKPC CEO	Emission Allowances	≤ 10 Years	20,000	Unlimited	\$25 Million
Senior Vice President, Power Supply	Emission Allowances	≤ 5 Years	15,000	\$5,000	\$10 Million
Manager, Fuel & Emissions	Emission Allowances	≤ 3 Year	10,000	\$3,000	\$5 Million
Senior Fuel Buyer	Emission Allowances	≤ 1 Year	5,000	\$1,000	\$3 Million

REDACTED

EKPC Board Minutes for 7/10/2007  
Attachment A, Page 2 of 5

CONFIDENTIAL  
East Kentucky Power Cooperative, Inc.  
Natural Gas Authority Matrix  
Daily Gas Purchases  
Effective Date 7/10/2007

Title	Product	Per Day Limits (up to)			Approval/Review
		Quantity MMBtu/Day	Price \$/MMBtu	Total Dollars	
President and CEO	Natural Gas \$/MMBtu	Unlimited	Unlimited	Unlimited	Review by F&PS Committee and Board of Directors
Sr. VP Power Supply	Natural Gas \$/MMBtu	Daily 250,000	Unlimited	\$10,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
Manager, Fuel & Emissions or Manager of Power Supply Operations	Natural Gas \$/MMBtu	Daily 250,000	Unlimited	\$5,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
Generation Dispatch Supervisor or Senior Fuel Buyer	Natural Gas \$/MMBtu	Daily 250,000	\$15.00	\$3,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
System Operator	Natural Gas \$/MMBtu	Daily 250,000	\$10.00	\$1,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
		Emergency No Limit	No Limit	No Limit	

Note: With input from Constellation NewEnergy—Gas Division and ACES Power Marketing.

**EKPC Board Minutes for 7/10/2007  
Attachment A, Page 3 of 5**

**CONFIDENTIAL  
East Kentucky Power Cooperative, Inc.  
Natural Gas Authority Matrix  
Future Physical & Financial Gas Purchases  
Per Calendar Year  
Effective Date 7/10/2007**

<b>Title</b>	<b>Product</b>	<b>Quantity MMBtu/Day</b>	<b>Price \$/MMBtu</b>	<b>Total Dollars</b>	<b>Approval/Review</b>
Board of Directors	Natural Gas \$/MMBtu	Unlimited	Unlimited	Unlimited	Unlimited
F&PS Committee	Natural Gas \$/MMBtu	800,000/mo. <= 3 years	Unlimited	\$48,000,000	Review by Board of Directors
President and CEO	Natural Gas \$/MMBtu	500,000/mo. <= 3 years	Unlimited	\$24,000,000	Review by F&PS Committee and Board of Directors
Sr. VP Power Supply	Natural Gas \$/MMBtu	500,000/mo. <= 1 year	Unlimited	\$10,000,000	Review by President & CEO, F&PS Committee, and Board of Directors
Mgr., Fuel & Emissions	Natural Gas \$/MMBtu	300,000/mo. <= 3 mos.	Unlimited	\$5,000,000	Review by Sr. VP Power Supply, President & CEO, F&PS Committee, and Board of Directors

**Note:** With input from Constellation NewEnergy—Gas Division and ACES Power Marketing.

**EKPC Board Minutes for 7/10/2007**  
**Attachment A, Page 4 of 5**

**East Kentucky Power Cooperative**  
**Electric Energy and Related Transmission**  
**Trading Authority Matrix and Policy**  
**Effective 7/10/2007**

Title	Product	Per Transaction Limits (up to)			Per Trading Day Limits (up to)	
		Term	MW Size	\$/MWh	Total MWh's	Total \$
EKPC Board of Directors	Electric Energy, Related Transmission and Electric Options	No Limit	No Max.	No Max.		
EKPC CEO with recommendation from Portfolio Management Committee		Hourly	No Max.	No Max.	No Max.	\$50 million
		Daily	No Max.	No Max.	No Max.	\$50 million
		Weekly	No Max.	No Max.	No Max.	\$50 million
		Monthly / Seasonal - Up To 9 Months	1000 MW	\$150	400,000	\$20 million
		1 Year	400 MW	\$100	3,504,000	\$50 million
Portfolio Management Committee	Hourly	No Max.	No Max.	No Max.	\$25 million	
	Daily	No Max.	No Max.	No Max.	\$25 million	
	Weekly	1200 MW	\$400	96,000	\$25 million	
	Monthly / Seasonal - Up To 9 Months	500 MW	\$150	200,000	\$10 million	
Sr. VP Power Supply	Hourly	1000 MW	No Max.	25,000	\$10 million	
	Daily	1000 MW	\$400	35,000	\$10 million	
	Weekly	1000 MW	\$300	80,000	\$10 million	
	Monthly / Seasonal - Up To 9 Months	300 MW	\$150	100,000	\$5 million	
Director of Power Supply Planning or Manager of Power Supply Operations	"	Monthly / Seasonal - Up To 3 Months	100 MW	\$100	50,000	\$2 million
Manager of Power Supply Operations or Generation Dispatch Supervisor	Hourly	800 MW	\$250	24,000	\$1 million	
	Daily	750 MW	\$150	24,000	\$1 million	
	Weekly	300 MW	\$100	24,000	\$1 million	
System Operator	"	Emergency Hourly	No Max.	No Max.	No Max.	No Max.
	"	Hourly	500 MW	\$200	12,000	\$500,000

Portfolio Management Committee consists of: CFO/VP Finance; Sr. VP G&T Operations; Sr. VP Power Supply Planning; Director of Power Supply Planning, Manager of Power Supply Operations; Generation Dispatch Supervisor

Note: Transactions to be completed with input and consultation from ACES Power Marketing.

**EKPC Board Minutes for 7/10/2007  
Attachment A, Page 5 of 5**

**CONFIDENTIAL**

**East Kentucky Power Cooperative, Inc.  
Transmission Authority Matrix  
Limits Per Transaction  
Effective 7/10/2007**

<b>Title</b>	<b>Product</b>	<b>Quantity MW/Month</b>	<b>Price \$/kW/Mo</b>	<b>Total Dollars</b>
Board of Directors	Transmission \$/kW/M	Unlimited	Unlimited	Unlimited
F&PS Committee	Transmission \$/kW/M	1,000 MW <= 3 years	\$7.50	\$50,000,000
President and CEO	Transmission \$/kW/M	750 MW <= 3 years	\$5.00	\$25,000,000
Sr. VP Power Supply	Transmission \$/kW/M	500 MW <= 1 year	\$4.00	\$15,000,000
Director of Power Supply Planning or Manager of Power Supply Operations	Transmission \$/kW/M	500 MW <= 3 months	\$4.50	\$5,000,000
Generation Dispatch Supervisor	Transmission \$/kW/M	500 MW <= 3 months	\$4.50	\$2,500,000
System Operator	Transmission \$/kW/M	300 MW <= 1 month	\$4.00	\$500,000

Note: Transactions to be completed with input and consultation from ACES Power Marketing.



**Board Agenda Item**

JULY

**TO:** Fuel and Power Supply Committee and Board of Directors

**FROM:** Robert M. Marshall *Robert M. Marshall*

**DATE:** June 29, 2007

**SUBJECT:** Ratification of SO<sub>2</sub> Emission Allowance Purchases (Executive Summary)

**KEY MEASURE(S)** This Supports Reliable and Competitive Energy Costs

**Background**

East Kentucky Power Cooperative, Inc., ("EKPC") is provided SO<sub>2</sub> and NO<sub>x</sub> emission allowances from the Environmental Protection Agency at the beginning of each year. EKPC is required to purchase allowances to cover its actual emission levels that exceed these allocations. Based on the attached memo approved by the President and Chief Executive Officer, 2,000 SO<sub>2</sub> Vintage 2007 allowances were purchased for a total cost of \$1,291,000.

**Justification and Strategic Analysis**

These purchases of SO<sub>2</sub> emission allowances are necessary to levelize EKPC's cost for 2008. A \$2,000 per ton fee, in addition to purchasing the needed allowances, is assessed for failure to have emission allowances to match actual emission levels. These purchases will enable EKPC to generate power at the lowest possible cost for its Member Systems and supports EKPC's key measures for reliable and competitive energy costs.

**Recommendation**

Management recommends that the Board of Directors ratify the action taken by the President and Chief Executive Officer on June 7, 2007, to purchase 2,000 tons of SO<sub>2</sub> Vintage 2007 allowances for a total cost of \$1,291,000 as detailed herein and on the attached memo.

dl/gv  
Attachment

**EKPC Board Minutes for 7/10/2007**  
**Attachment B, Page 2 of 2**

**TO:** Bob Marshall

**FROM:** Jim Lamb (Original Initialed)

**DATE:** June 7, 2007

**SUBJECT:** Purchase of SO<sub>2</sub> Emission Allowances

**KEY MEASURE(S):** This Supports Reliable and Competitive Energy Costs

## **Background**

East Kentucky Power Cooperative, Inc. ("EKPC") is provided SO<sub>2</sub> and NO<sub>x</sub> emission allowances from the Environmental Protection Agency ("EPA") at the beginning of each year. EKPC is required to purchase allowances to cover its actual emission levels that exceed these allocations. EKPC needs an additional 2,000 SO<sub>2</sub> allowances to continue its hedging purchases for 2008 in order to levelize EKPC and its members SO<sub>2</sub> emission allowance cost. EKPC has arranged the purchase of 2,000 SO<sub>2</sub> Vintage 2007 allowances through two brokers at an average cost of \$645.00 per allowance plus broker fees of \$.50 per allowance for a total cost of \$1,291,000.

## **Justification and Strategic Analysis**

Title IV of the Clean Air Act, amended in 1990, required lower levels of sulfur dioxide emissions and allowed for the purchase and sale of SO<sub>2</sub> emission allowances to achieve this reduced level. A \$2,000/ton fee, in addition to purchasing the SO<sub>2</sub> allowances, is assessed for failure to meet these emissions level. This purchase of SO<sub>2</sub> emission allowances is necessary to levelize EKPC's SO<sub>2</sub> allowance cost for 2008 and will enable EKPC to generate power at the lowest possible cost for its Member Systems. This recommendation supports EKPC's key measures for reliable and competitive energy costs.

## **Recommendation**

Your approval is requested to enter into a contract with Saracen Energy, LP, for the purchase of 1,000 Vintage 2007 SO<sub>2</sub> allowances at a price of \$645 per allowance plus a broker fee to ICAP United of \$.50 per allowance and a second contract with Saracen Energy, LP, an additional 1,000 Vintage 2007 SO<sub>2</sub> allowances at a price of \$645 per allowance plus a broker fee to Evolution Markets of \$.50 per allowance. An action item will be presented to the Board of Directors at its July meeting to ratify the approval of these purchases.

**Approved by:** Original Approved

**Date:** Original Dated June 7, 2007

**Board Agenda Item**

JULY

**TO:** Fuel and Power Supply Committee and Board of Directors

**FROM:** Robert M. Marshall *Robert M. Marshall*

**DATE:** June 29, 2007

**SUBJECT:** Approval of Coal Supply Amendment with B & N Coal, Inc.—  
Gilbert Unit at Spurlock Power Station (Executive Summary)

**KEY MEASURE(S)** This Supports Reliable and Competitive Energy Costs

**Background**

East Kentucky Power Cooperative, Inc., (“EKPC”) has a coal supply contract with B & N Coal, Inc., (“B & N”) that provides 120,000 tons of coal per year to the Gilbert Unit at Spurlock Power Station (“Gilbert”). This contract requires a market reopener to occur between April 1, 2007, and July 31, 2007. During this period the parties will jointly consider the economic conditions and market prices in the coal industry to determine if a price adjustment should occur. A successful reopener will continue this contract through March 31, 2010.

EKPC, in order to establish current market prices, issued a written bid solicitation on March 6, 2007. The responses were received on April 6, 2007, and opened on April 10, 2007, with E. A. Gilbert, Director, present. The Fuel Evaluation Report is attached.

The fuel evaluation, while indicating that Gilbert specification coal pricing is on the rise, gave the fuel process two responses that enabled them to approach B & N for a price reduction. The current B & N delivered price is \$1.366/MMBtu or \$30.60 per ton. The fuel process has negotiated a reduction in this delivered price to \$1.25/MMBtu or \$28 per ton based on current barge rates. The base annual tonnage will increase from 120,000 tons to 156,000 tons. This amendment will also include new market reopener language for another reopener in the last quarter of 2009 to extend the term three additional years.

Management believes that the additional tons at this new reduced pricing is beneficial to EPKC. The B & N contract contains price escalations on 15 percent of the base contract price on a quarterly basis for diesel fuel and an inflation escalator on 85 percent of the base contract price on an annual basis. These escalators will continue to apply. The new

## Board Agenda Item

JULY

reduced contract price and tonnage increase will go into effect on October 1, 2007. The quality for the B & N coal is 11,200 Btu/lb., 19 percent ash, and 9.58 lbs. SO<sub>2</sub>. The coal is delivered by barge from Ohio.

### Justification and Strategic Analysis

This recommended contract amendment will provide EKPC with a continued supply of coal from a dependable supplier for Gilbert through March 31, 2010 and will save EKPC approximately \$1 million over the life of the contract. This will enable EKPC to continue to generate power for the lowest cost possible for its Member Systems. This recommendation supports EKPC's key measures for reliable and competitive energy costs.

### Recommendation

Management recommends that the Board of Directors approve the coal supply contract amendment to B & N under the terms herein described.

eh/gv  
Attachment

**FUEL EVALUATION FOR GILBERT UNIT NO. 3**

**B & N CONTRACT REOPENER**

Date: 06/07/2007  
Event Nbr: 86  
Bid End Date: 04/06/2007

Coal Supplier	Number	Quality Btu % Sulfur % Ash	Tons	Term	Limestone Sulfur Cost \$/Ton	Ash Landfill Cost \$/Ton	Weekly Cost \$/Ton	Freight Cost \$/Ton	Delivery Cost \$/Ton	Delivery Cost \$/MMBtu	Evaluated Cost	
											\$	Ton MMBtu
ION Carbon & Miner Pike Monthly/Non-Union /Broker	7	8,500 2.50 15.00	15,000	24							23.372	1.375
Massey Utility Boone Monthly/Non-Union /Producer	9	10,800 5.25 25.00	7,500	30							31.478	1.457
Phoenix Coal Corp Muhlenberg Monthly/Non-Union /Producer	10	10,600 4.89 18.00	30,000	30							33.246	1.568
James River Coal Pike Monthly/Non-Union /Producer	8	9,500 4.00 17.00	15,000	39							31.046	1.634
Coalsales LLC Webster Monthly/Non-Union /Producer	5	9,600 3.74 26.00	15,000	30							34.818	1.813
Etta-Mae Inc Lawrence Monthly/Non-Union /Producer	6	11,200 3.60 12.00	5,000	15							40.938	1.828
Waterloo Coal Jackson Weekly /Non-Union /Producer	11	10,250 5.12 22.00	15,000	36							38.299	1.868

**Cost Factors used in Gilbert Model**  
 Weekly Pay Factor: \$0.005    Price of Limestone: \$8.04    SO2 Cost/Ton: \$755.00  
 Limestone Reactivity: 87.00 %    Ash Landfill Cost: \$2.12

**REDACTED**

B & N CONTRACT REOPENER

FUEL EVALUATION FOR GILBERT UNIT NO. 3

Date: 05/31/2007  
Event Nbr: 86  
Bid End Date: 04/06/2007

Coal Supplier	Number	Quality Btu % Sulfur	% Ash	Tons	Term	Limestone Sulfur Cost \$/Ton	Ash Landfill Cost \$/Ton	Weekly Cost \$/Ton	Freight Cost \$/Ton	Delivery Cost \$/Ton	Delivery Cost \$/MMBtu	Evaluated Cost	
												\$	Ton MMBtu
American Coal Belmont Monthly/Union	3	12,500 4.70 10.50		15,000	30							48.136	1.925
American Coal Saline Monthly/Non-Union	2	11,800 2.66 9.00		15,000	30							50.240	2.129
American Coal & Mi Harrison Monthly/Non-Union	1	12,500 2.88 8.00		15,000	29							53.744	2.150
Arch Coal Sales Logan Monthly/Non-Union	4	12,500 0.96 12.00		15,000	12							58.987	2.359

Cost Factors used in Gilbert Model  
Weekly Pay Factor: \$0.005 Price of Limestone: \$8.04 SO2 Cost/Ton: \$755.00  
Limestone Reactivity: 87.00 % Ash Landfill Cost: \$2.12

REDACTED

**Board Agenda Item**

JULY

**TO:** Fuel and Power Supply Committee and Board of Directors**FROM:** Robert M. Marshall*Robert M. Marshall***DATE:** June 29, 2007**SUBJECT:** Approval of Coal Supply Contract with Massey Coal Sales Company, Inc.—Gilbert Unit at Spurlock Power Station (Executive Summary)**KEY MEASURE(S)** This Supports Reliable and Competitive Energy Costs**Background**

East Kentucky Power Cooperative, Inc., (“EKPC”) has a coal supply contract with B & N Coal, Inc., (“B & N”) that provides 120,000 tons of coal per year to Gilbert Unit at Spurlock Power Station (“Gilbert”). This contract requires a market reopener to occur between April 1, 2007, and July 31, 2007.

EKPC, in order to establish current market prices, issued a written bid solicitation on March 6, 2007. The responses were received on April 6, 2007, and opened on April 10, 2007, with E. A. Gilbert, Director, present. Evaluation of these bids revealed to the fuel process that the Gilbert quality coal was trending upward in pricing. The Ion Carbon & Minerals proposal is washer fines and could not be used as a single product. Therefore, the most economical bid received that meets the specifications for Gilbert was from Massey Coal Sales Company, Inc., (“Massey”) at a delivered price of \$1.247/MMBtu using current transportation rates. The next lowest bid was [REDACTED]/MMBtu for 7,500 tons per month.

Management utilized the Massey price to negotiate a price reduction on the B & N reopener and also negotiated a contract with Massey to purchase the coal offered by them. Massey will begin shipping this coal in July 2007 and hold the price firm through December 2008. At this time, there will be a market reopener to set the price for the remaining 15 months of the contract to end March 31, 2010. The coal will be 10,800 Btu/lb., 5.25 percent sulfur, and 25 percent ash and is to be delivered by barge at a rate of 7,500 tons per month. Massey currently has a contract with EKPC for Gilbert and is performing satisfactory.

**Board Agenda Item**

JULY

**Justification and Strategic Analysis**

This contract will enable EKPC to continue to generate power for the lowest cost possible for its Member Systems. This recommendation supports EKPC's key measures for reliable and competitive energy costs.

**Recommendation**

Management recommends that the Board of Directors approve the coal supply contract to Massey under the terms herein described.

eh/gv  
Attachment



**FUELEVALUATION FOR GILBERT UNIT NO.3**

**B & N CONTRACT REOPENER**

Date: 05/31/2007  
Event Nbr: 86  
Bid End Date: 04/06/2007

Coal Supplier	Number	Quality/Btu % Sulfur	Tons	Term	Limestone Sulfur Cost \$/Ton	Ash Landfill Cost \$/Ton	Weekly Cost \$/Ton	Freight Cost \$/Ton	Delivery Cost \$/Ton	Delivery Cost \$/MMBtu	Evaluated Cost	
											\$	MMBtu
ION Carbon & Miner Pike Monthly/Non-Union /Broker	7	8,500 2.50 15.00	15,000	24							23.372	1.375
Massey Utility Boone Monthly/Non-Union /Producer	9	10,800 5.25 25.00	7,500	30							31.478	1.457
Phoenix Coal Corp Muhlenberg Monthly/Non-Union /Producer	10	10,600 4.89 18.00	30,000	30							33.246	1.568
James River Coal Pike Monthly/Non-Union /Producer	8	9,500 4.00 17.00	15,000	39							31.046	1.634
Coalsales LLC Webster Monthly/Non-Union /Producer	5	9,600 3.74 26.00	15,000	30							34.818	1.813
Etta-Mae Inc Lawrence Monthly/Non-Union /Producer	6	11,200 3.60 12.00	5,000	15							40.938	1.828
Waterloo Coal Jackson Weekly /Non-Union /Producer	11	10,250 5.12 22.00	15,000	36							38.299	1.868

**Cost Factors used in Gibert Model**  
Weekly Pay Factor: \$0.005 Price of Limestone: \$8.04 SO2 Cost/Ton: \$755.00  
Limestone Reactivity: 87.00 % Ash Landfill Cost: \$2.12

REDACTED

B & N CONTRACT REOPENER

FUEL EVALUATION FOR GILBERT UNIT NO. 3

Date: 05/31/2007  
Event Nbr: 86  
Bid End Date: 04/06/2007

Coal Supplier	Number	Quality Btu % Sulfur % Ash	Tons	Term	Limestone Sulfur Cost \$/Ton	Ash Landfill Cost \$/Ton	Weekly Freight Cost \$/Ton	Delivery Cost \$/Ton	Delivery Cost \$/MMBtu	Evaluated Cost	
										\$	Ton MMBtu
American Coal Belmont Monthly/Union	3 OH /Producer	12,500 4.70 10.50	15,000	30						48.136	1.925
American Coal Saline Monthly/Non-Union	2 IL /Producer	11,800 2.66 9.00	15,000	30						50.240	2.129
American Coal & Mi Harrison Monthly/Non-Union	1 OH /Broker	12,500 2.88 8.00	15,000	29						53.744	2.150
Arch Coal Sales Logan Monthly/Non-Union	4 WV /Producer	12,500 0.96 12.00	15,000	12						58.987	2.359

Cost Factors used in Gilbert Model  
Weekly Pay Factor: \$0.005 Price of Limestone \$8.04 SO2 Cost/Ton: \$755.00  
Limestone Reactivity: 87.00 % Ash Landfill Cost: \$2.12



REDACTED

**EAST KENTUCKY POWER COOPERATIVE, INC.  
MINUTES OF BOARD MEETING  
AUGUST 14, 2007**

A regular meeting of the Board of Directors of East Kentucky Power Cooperative, Inc. ("EKPC") was held at the Headquarters Building, 4775 Lexington Road, Winchester, Kentucky, on Tuesday, August 14, 2007, at 10:35 a.m. EDT, pursuant to proper notice.

Chairman Wayne Stratton called the meeting to order. Jim Jacobus gave the invocation. The minutes were kept under the supervision of Secretary A. L. Rosenberger. The secretary took the roll call with the following directors present:

Michael Adams	Licking Valley
Fred Brown	Jackson
P. D. Depp	Taylor County
Danny Divine	Inter-County
E. A. Gilbert	Blue Grass
Ted Hampton, Alternate	Cumberland Valley
Hope Kinman	Owen
Jimmy Longmire	Salt River
Wade May	Big Sandy
Bill Rice	Grayson
A. L. Rosenberger	Nolin
Randy Sexton	Farmers
William Shearer	Clark Energy
Rick Stephens	South Kentucky
Wayne Stratton	Shelby
Lonnie Vice	Fleming-Mason

**ANNOUNCEMENTS**

- Welcomed Mike Core, Big Rivers; Bill Prather, Farmers RECC; and Tim Sharpe, Salt River Electric.
- Many concerns were mentioned with regard to co-op family and friends.

**BOARD MINUTES**

On motion of P. D. Depp, seconded by E. A. Gilbert, and passed, the July 10, 2007, board meeting minutes were approved as mailed.

## ADOPTION OF AGENDA

On motion of Wade May, seconded by Mike Adams, and passed, the agenda was adopted as amended with the addition of an item under the Fuel and Power Supply Committee pertaining to funding for NEPA consultant services regarding an SEIS for RUS for J. K. Smith Unit No. 1.

## REPORT OF THE OFFICERS

### Report of the President and CEO

Big Rivers EC – Big Rivers President and CEO, Mike Core, provided a presentation to the Board, giving the company's and his own history. The future holds many issues regarding power supply, environmental, and economics, and partnering opportunities are a means to deal with those issues together.

October Board Meeting – Because the G&T Managers' meeting interferes with the October 9 Board meeting, rescheduling that meeting to October 2 is anticipated.

ACES – Wayne Stratton briefly reviewed the recent ACES Board meeting which was a strategic planning session.

Alliance for Cooperative Energy Services Power Marketing, LLC ("ACES") Alternates – Bob Marshall informed that Board that the organizational structure for ACES permits each member to designate two managers and two alternates to the ACES Board of Managers. At the January 2007 Board meeting, the Board approved designation and appointment of Robert Marshall, P&CEO, as EKPC's first alternate representative to the ACES Board of Managers, replacing Dave Eames, and that he was to succeed Roy Palk as one of EKPC's two managers. Also serving were Wayne Stratton as manager and the second alternate was Jack Browning, now deceased.

Upon **motion** of Ted Hampton, **seconded** by Rick Stephens, and **passed**, the Board approved designation and appointment of Jim Lamb as EKPC's first alternate representative and Allen Anderson as second alternate representative to the Alliance for Cooperative Energy Services Power Marketing, LLC ("ACES") Board of Managers, replacing Robert Marshall and Jack Browning.

Board Self-Appraisal – The last Board self-appraisal was in 2003 and so is due again this year. This will be facilitated by Stacy Barker, Human Resources and will take place around October.

Cooper Station Water Levels/Cooling Tower – At one point a recommendation came down that the water level at the dam would be held at 680' and everyone was encouraged to continue to make necessary modifications in case the level was reduced due to

extraordinary circumstances. Latest word is that the water level may be raised later in the year. Last week the contractor was to begin construction for the erection of the cooling tower and a 30-day hold was placed on that particular part of the project. A meeting is scheduled August 17 in Nashville in an effort to obtain more certain information from the Corps.

Franklin Circuit Court Ruling re: Fuel Surcharge – A ruling has come down from the Franklin Circuit Court in a case involving Union Light and Power which could create potential ramifications for EKPC. A meeting is scheduled for August 16 at the PSC regarding fuel surcharge and whether it is legal. This does not involve the environmental surcharge.

CRN Membership – As part of NRECA's changes being made, if an entity is a member of NRECA it must also be a member of CRN. EKPC is a CRN member. Because CRN costs are embedded in EKPC rates, if member systems get CRN invoices, they should be directed to EKPC for payment.

Accidents – Recently, a transmission interruption occurred in the Blue Grass area when a crane got into a transmission line. This past weekend a catastrophic failure of a large auto transformer occurred at Spurlock. A person reading the meter sustained burns and was admitted and later released from the hospital.

#### **AUDIT COMMITTEE ACTION ITEMS**

No Audit Committee items were brought before the Board.

#### **AUDIT COMMITTEE INFORMATION ITEMS**

No Audit Committee information items were brought before the Board.

#### **OPERATIONS, SERVICES AND SUPPORT (“OSS”) COMMITTEE ACTION ITEMS**

##### Settlement - Wholesale Rate Adjustment Case—PSC Case No. 2006-00472

After review of the applicable information, a motion was made by P. D. Depp and, following further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc. (“EKPC”) has reached a tentative settlement agreement with the Intervenor in PSC Case No. 2006-00472, the Attorney General, Kentucky Industrial Utility Customers, Inc., and the Cumberland Chapter of the Sierra Club;

**Whereas**, EKPC and the Intervenors desire to present this settlement agreement to the Public Service Commission as a unanimous resolution of all issues in EKPC's rate case, once all terms are finally agreed and accepted by all Parties to the case; and

**Whereas**, Management and the Operations, Services and Support Committee have reviewed the attached settlement terms and recommend that the EKPC Board of Directors (the "Board") approve a settlement which substantially complies with those terms; now, therefore, be it:

**Resolved**, That the EKPC Board hereby approves a settlement of PSC Case No. 2006-00472 on terms which substantially comply with the attached draft settlement agreement, and authorizes the President and General Manager to approve the final terms of such a settlement which are acceptable to all Parties to the case, and to direct EKPC Counsel to execute and submit to the Public Service Commission such a settlement agreement.

#### **OSS COMMITTEE INFORMATION ITEMS**

No OSS Committee information items were brought before the Board.

#### **FUEL AND POWER SUPPLY ("F&PS") COMMITTEE ACTION ITEMS**

##### Contract D312 w/Wagner Industrial Electric, Inc.; Electrical Work for Spurlock Unit 2 Scrubber

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas**, At the September 2005 East Kentucky Power Cooperative, Inc., ("EKPC") Board Meeting the EKPC Board of Directors ("Board") approved the construction of a limestone scrubber to be added to Unit No. 2 at Spurlock Power Station;

**Whereas**, An electrical contractor is required to provide the electrical work not included in other contracts for the Spurlock Power Station Unit 2 Scrubber Project ("Scrubber Project");

**Whereas**, On June 1, 2007, Stanley Consultants mailed a request for proposal to Wagner Industrial Electric, Inc. ("Wagner") of Dayton, OH and to Cherne Contracting Corporation ("Cherne") of Eden Prairie, MN to provide material and labor for electrical work required for the Scrubber Project;

**Whereas**, The deadline for submitting bids was June 29, 2007, Wagner submitted their bid on June 29, 2007, as directed. However, Cherne's bid did not arrive until July 2, 2007;

**Whereas,** At the bid opening, with Mr. Gilbert of the Contracting Subcommittee attending, it was determined that Cherne's bid was non-responsive due to the late arrival and it was returned unopened;

**Whereas,** The proposal from Wagner is for [REDACTED] with the engineer's estimate at \$3.4 million;

**Whereas,** Wagner proposed that the price of copper be adjusted (up or down) at the time material is ordered from their bid price of [REDACTED] per pound using the Comex Price Index and 154,791.05 pounds of copper contained in their proposal;

**Whereas,** Due to the volatile copper market, this proposal is recommended;

**Whereas,** The Scrubber Project is in the 2007 Budget, Work Plan, and the latest EKPC Production Three-Year Construction Work Plan; and

**Whereas,** The Fuel and Power Supply Committee and EKPC management recommend the award of a contract to Wagner to provide material and labor for electrical work required for the Scrubber Project for a contract price of [REDACTED], now, therefore, be it;

**Resolved,** That the EKPC Board hereby approves the award of a contract to Wagner Industrial Electric, Inc. for [REDACTED] as set forth above to provide electrical work required for the Spurlock Power Station Unit No. 2 Scrubber, and hereby authorizes the President and Chief Executive Officer, or his designee, to execute all necessary documents for the award of this contract.

Contract F332 w/Universal Incorporated; Finish Painting for Spurlock Station Unit No. 4.

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas,** On September 14, 2004, the East Kentucky Power Cooperative, Inc., ("EKPC") Board of Directors ("Board") approved the construction of a circulating fluidized bed base load unit of 278 MW at Spurlock Power Station at an estimated cost of \$469.7 million;

**Whereas,** At the December 2004 EKPC Board Meeting, authorization was given to negotiate with the Gilbert Unit ("Gilbert") contractors for providing comparable services on the Spurlock Unit No. 4 ("Unit No. 4") Project in an attempt to obtain reasonable pricing for equipment and/or construction;

**Whereas,** Painting services associated with the Gilbert Unit were provided by Universal Incorporated ("Universal") and these services were successfully completed to the satisfaction of EKPC with the only contract changes being for scope additions requested by EKPC;

**Whereas,** A lesson learned on Gilbert was that cost savings could be realized by pre-erection surface preparation and painting;

**Whereas,** A proposal was received from Universal on June 29, 2007 to complete the Unit 4 painting work at a price of [REDACTED] and a negotiating meeting was held on July 16, 2007 with representatives from EKPC, Universal, Stanley, and Mr. Gilbert of the Contracting Subcommittee attending;

**Whereas,** EKPC evaluated Universal's proposal by means of a comparative assessment and reconciliation of the cost, scope, and execution plan differences between the Gilbert Unit and Unit No. 4, with this assessment concluding that Universal's proposal reflected a savings of 13% as compared to the Gilbert Unit;

**Whereas,** The finish painting scope of work associated with the Contract F332 is included in the Unit No. 4 Project which has been budgeted in the current EKPC Budget and Work Plan, and is also incorporated in the RUS-approved Production Three-Year Construction work Plan; and

**Whereas,** The Fuel and Power Supply Committee and EKPC management recommend the award of a contract to Universal to finish paint, as required, on Unit No. 4 at a cost of [REDACTED]; now, therefore, be it;

**Resolved,** That the EKPC Board hereby approves the award of a contract to Universal Incorporated to provide finish painting for the Spurlock Power Station Unit No. 4 Project at a firm price of [REDACTED], and hereby authorizes the President and Chief Executive Officer, or his designee, to execute all necessary documents for the award of this contract.

Amendment No. 1 to Contract D262 w/Baker Concrete Construction; Spurlock Unit No. 2 Scrubber

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas,** At the July 2005 East Kentucky Power Cooperative, Inc., ("EKPC") Board Meeting the EKPC Board of Directors ("Board") approved the engineering, purchase, and construction of a Limestone Scrubber at Spurlock Power Station Unit No.2 Scrubber Project ("Scrubber Project") at an estimated cost of \$175.6 million;

**Whereas,** At the July 2006 EKPC Board Meeting, the Board awarded a contract to Baker Concrete Construction ("Baker") to provide substructure for the Scrubber Project at a price of [REDACTED];

**Whereas,** During the construction of the foundations for the Scrubber Project, four change authorization requests (CAR) have been necessary;



**Whereas,** The first CAR is for a number of items not in the original scope of work, including cutting off piles, extra excavation, added reinforcing bars in the ball mill foundations, and relocating 36” drain pipe; the second was primarily for winter concrete protection; the third was for the foundation for the Unit 2 Chimney, and the fourth was for the ammonia tank foundation;

**Whereas,** These CARs now total [REDACTED] and require Board approval and incorporation into Amendment #1 to this contract for an amended total contract amount of [REDACTED]; and

**Whereas,** The Fuel and Power Supply Committee and EKPC management recommend the approval of this amendment to Contract D262 with Baker, now, therefore, be it;

**Resolved,** That the EKPC Board hereby approves Amendment No. 1 of [REDACTED] to Contract D262 with Baker, for an amended contract price of [REDACTED], and hereby authorizes the President and Chief Executive Officer, or his designee, to execute all necessary documents for processing this amendment.

Amendment No. 1 to Coal Supply Contract w/M.C. Mining, LLC; Spurlock Station Unit No. 2

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas,** East Kentucky Power Cooperative, Inc., (“EKPC”) has a coal supply contract with M. C. Mining, LLC (“MC”) for 240,000 tons of coal per year for Spurlock Power Station Unit No. 2 that extends through December 31, 2007;

**Whereas,** MC has been a dependable and accommodating supplier to EKPC;

**Whereas,** EKPC’s projected activation date for the scrubber at Spurlock Power Station Unit No. 2 is October 2008;

**Whereas,** Management has negotiated a contract extension amendment with MC to continue shipping 20,000 tons per month of compliance coal until the scrubber activation date and then begin shipping scrubber-type coal for a period of six years;

**Whereas,** Said amendment will include a market reopener provision for the compliance coal in September and October 2007;

**Whereas,** If the price reopener for the compliance coal is successful, another reopener will occur during the months of April and May 2008 and again in the months of June and July 2011 to determine pricing for the scrubber coal; and

**Whereas**, EKPC management and the Fuel and Power Supply Committee have reviewed the terms of this amendment, find them to be reasonable, and recommend the approval of coal supply contract Amendment No. 1 with MC; now, therefore, be it

**Resolved**, That the EKPC Board of Directors hereby approves a coal supply contract Amendment No. 1 with MC, and the President and Chief Executive Officer, or his designee, is hereby authorized to execute said contract amendment based on the terms presented herein and in the Executive Summary.

#### Contracting Subcommittee

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas**, The Rural Utilities Service (“RUS”) regulations at 7 CFR part 1726, and East Kentucky Power Cooperative, Inc. (“EKPC”) Board Policy No. 401 (II)(3) require a Contracting Subcommittee (representing management, the Board of Directors (“Board”), and engineer) for contract clarifying discussions or negotiations under informal competitive bidding or multiparty negotiations;

**Whereas**, The Chairman of the Fuel and Power Supply Committee has appointed three directors and three alternate directors to said Contracting Subcommittee in compliance with Board Policy No. 401, with said representatives consisting of E. A. Gilbert, Mike Adams, A. L. Rosenberger, Bobby Sexton, Barry Myers, and Don Schaefer;

**Whereas**, This recommendation supports the EKPC key measure of supplying reliable and competitive energy; and

**Whereas**, Management and the Fuel and Power Supply Committee recommend this action; now, therefore, be it

**Resolved**, That the EKPC Board hereby approves the appointment of E. A. Gilbert, Mike Adams, A. L. Rosenberger, Bobby Sexton, Barry Myers, and Don Schaefer as members of the Contracting Subcommittee for the Fuel and Power Supply Committee.

#### Funding for Consultant Services for Supplemental Environmental Impact Statement (SEIS) for RUS for Smith Station

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas**, 7 CFR 1789, Subpart A identifies the policy and procedures with respect to consultant services funded by Borrowers and Section 1789.150 authorizes the Rural Utilities Services (“RUS”) to use the services of consultants funded by the

Borrowers to facilitate timely action on Applications by Borrowers for financial assistance and other approvals;

**Whereas**, EKPC has requested RUS to utilize consultant services to assist in the filing of the Supplemental Environmental Impact Statement ("SEIS") for the baseload coal-fired unit at J. K. Smith Power Station;

**Whereas**, RUS shall be solely responsible for the administration of the Consulting Contract and shall have complete control over the scope of the Consultant's work, the timetable for performance, the standards to be applied in determining the acceptability of deliverables and the approval of payment of invoices;

**Whereas**, RUS will develop the Statement of Work and Independent Government Cost Estimate and submit both documents to EKPC for review and comment;

**Whereas**, EKPC Management and the Fuel and Power Supply Committee recommend approval to execute agreements necessary and fund the Consultant Contract and any amendments thereof, now, therefore be it

**Resolved**, That the Board hereby authorizes the President and Chief Executive Officer or his designee to execute a Funding Agreement, an Escrow Agreement and an Indemnification Agreement and any other documents, agreements and amendments that may be required and take such other actions as necessary to effect the purposes of the agreements for RUS to enter into a Consulting Contract and authorize EKPC to fund such Consulting Contract; and

**Resolved**, That the Board approves the use of general funds for these services.

## **F&PS COMMITTEE INFORMATION ITEMS**

No F&PS Committee information items were brought before the Board.

## **POWER DELIVERY ("PD") COMMITTEE ACTION ITEMS**

### Transmission Projects

After review of the applicable information, a motion was made by Bill Shearer and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc., ("EKPC") engineering studies have confirmed the necessity and advisability of the following projects included in the

August 14, 2007 Amendment to the EKPC Rural Utilities Service ("RUS") approved Three-Year Work Plan (November 2005-October 2008):

Bracken County-Griffin Jct. 69 kV Line Rebuild	\$1,562,000
E-ON Fawkes-Clark County 138 kV Line Upgrade	\$1,900,000
E-ON Lake Reba-Waco 69 kV Line Upgrade	\$600,000
E-ON Pineville 345-161 kV Transformer Upgrade	\$200,000
E-ON Fawkes Tap-Fawkes 138 kV Line Upgrade	\$100,000
E-ON Boonesboro North 138-69 kV Transformer Upgrade	\$80,000
E-ON Beattyville-Delvinta 161 kV Line Upgrade	\$35,000
E-ON Fawkes-Crooksville Jct. 69 kV Line Upgrade	\$30,000
E-ON Lake Reba Tap-West Irvine 161 kV Line Upgrade	\$20,000
Denny 69 kV, 33.17 MVAR Capacitor Bank	\$273,000
Barren County 161 kV Structure/Circuit-Switcher Addition	\$170,000
Magoffin County 69 kV Breaker Addition	\$100,000
Peyton Store 69 kV Capacitor Bank Upgrade	\$36,000
Tharp Jct. 69 kV Switch Upgrades (2)	\$25,000
Hickory Plains Jct. 69 kV Switch Upgrade	\$12,000
Etown #2 69 kV Switch Upgrade	\$13,000
Tharp #2 69-12.5 kV, 11.2/14 MVA Substation Addition	\$721,000
Tharp #2 69 kV Tap Line	\$56,000
Moranburg 138-25 kV, 12/16/20 MVA Substation	\$1,188,000
Moranburg 0.19 mile, 138 kV Tap Line	\$199,000
Sabert 69-12.5 kV, 11.2/14 MVA Substation	\$673,000
Sabert 0.4 Mile, 69 kV Tap Line	\$277,000
Williamsburg 15/20/25 MVA Substation Upgrade	\$789,000
Munk #2 69-25 kV, 11.2/14 MVA Substation Addition	\$728,000
Munk #2 69 kV Tap Line	\$148,000

**Whereas**, Review by the Power Delivery ("PD") Committee and approval of the EKPC Board of Directors ("Board") is required for the construction and financing of these projects pursuant to Board Policies No. 103 and 106;

**Whereas**, The current EKPC Three-Year Work Plan (November 2005-October 2008) dated November 2005, has been submitted to RUS for approval, which requires that any amendment thereto be approved by the Board and;

**Whereas**, EKPC management and the PD Committee recommend that the Board amend the current EKPC RUS approved Three Year Work Plan and approve construction of these projects, the acquisition of all real property and easement rights, by condemnation if necessary, and the obtaining of permits and approvals necessary and desirable for these projects and include the financing of these projects with general funds, subject to reimbursement from construction loan funds should they become available and the Board will act upon said recommendation this date; and

**Whereas**, This recommendation supports the delivery of facilities at a competitive cost, on time, and of good quality; now, therefore, be it

**Resolved**, That EKPC management is authorized to amend the current EKPC RUS approved Three-Year Work Plan to include the above projects summarized in more detail in the attached Executive Summary;

**Resolved**, That approval is hereby given for construction of said projects included in the August 14, 2007 Amendment to the EKPC Three-Year Work Plan (November 2005-October 2008), at an estimated total cost of \$9,935,000 and for the acquisition of all real property and easement rights, by condemnation if necessary, as well as all necessary permits and approvals for these projects; and

**Resolved**, That approval is hereby given to amend the EKPC Annual Budget and Work Plan to include the projects and to finance them with general funds, subject to reimbursement from construction loan funds should they become available.

#### **PD COMMITTEE INFORMATION ITEMS**

PD Committee Chairman Bill Brashear reported that the Committee heard several updates by Mary Jane Warner and Rick Drury.

#### **MEMBER SYSTEM NEEDS**

No member system needs were brought before the Board.

#### **EKPC DIVISION MONTHLY REPORTS**

Chairman Stratton noted the monthly reports as included in the Board books.

#### **AGENDA ITEMS FOR NEXT AGENDA**

Board Officers Meeting – The EKPC Board officers met with those of Hoosier and Big Rivers for an idea-sharing session. A recommendation was that a committee of three be placed on a task force for further discussion of projects. It is anticipated this item will be brought to the Board for approval at the September meeting.

#### **OTHER BUSINESS**

September Training Session – Training Sessions will be held on Monday, September 10, the day before the Board meeting. Information has been mailed.

### EXECUTIVE SESSION

At 11:55 a.m., Chairman Stratton requested the Board go into Executive Session, with Wade May making the motion that was seconded and passed. Those remaining included the Directors, Alternate Directors, Bill Prater, Bob Marshall, and David Smart. Della Damron stayed to assist the Secretary with the minutes.

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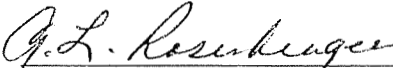
The minutes of the remainder of the **Executive Session** are included in the separate August 14, 2007, Executive Session Minutes of the regular Board meeting.

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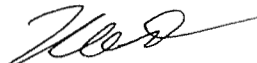
No other business was brought before the Board.

At 12:03 p.m., Chairman Stratton adjourned the Executive Session and the regular Board meeting.

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A. L. Rosenberger, Secretary

Approved:

  
R. Wayne Stratton  
Chairman of the Board

Date: *Sept. 11, 2007*

REDACTED

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EKPC Draft- 8/6/07  
PRELIMINARY DRAFT- FOR DISCUSSION ONLY

**COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION**

In The Matter Of: General Adjustment of Electric  
Rates of East Kentucky Power Cooperative, Inc.

Case No. 2006-00472

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**SETTLEMENT AGREEMENT**

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This Settlement Agreement, is submitted to the Public Service Commission (the "Commission"), by and among East Kentucky Power Cooperative, Inc., (hereinafter referred to as "EKPC"); the Kentucky Office of the Attorney General (hereinafter referred to as the "Attorney General"); the Cumberland Chapter of the Sierra Club (hereinafter referred to as the "Sierra Club"); and Kentucky Industrial Utility Customers, Inc. (hereinafter referred to as "KIUC").

WHEREAS, EKPC filed an Application with the Kentucky Public Service Commission (the "Commission") on January 29, 2007, which was subsequently accepted for filing on February 6, 2007, for approval of a general rate increase at an annualized level of \$43.3 million, effective on April 1, 2007, and the pass-through of such rates to the retail rates of EKPC's Member Systems on the same date (PSC Case No. 2006-00472).

WHEREAS, The Commission suspended EKPC's requested general rate increase for the statutory five month review period, pursuant to KRS §278.190, but subsequently approved EKPC's request for an interim rate increase at an annualized level of \$19 million, effective for service rendered

## CONFIDENTIAL

on and after April 1, 2007, based on a determination that EKPC's credit and operations would be materially impaired without such interim rate relief.

WHEREAS, the Attorney General and KIUC were made parties to PSC Case No. 2006-00472 by orders of the Commission dated February 19, 2007; and the Sierra Club was made a party to PSC Case No. 2006-00472 by order of the Commission dated March 6, 2007.

WHEREAS, the Parties to the above-referenced case conducted and reviewed extensive discovery, reviewed EKPC's pre-filed direct testimony, and participated in settlement conferences on May 29 and June 20, 2007, and engaged in additional discussions by teleconference.

WHEREAS, the Parties have discussed and resolved the issues of the amount and timing of EKPC's general rate increase, the allocation of the increase to all wholesale rate classes, including commercial, large industrial and special contract customer classes, and the energy efficiency issues raised by the Sierra Club.

NOW, THEREFORE, The Parties desire to settle the issues in the above-referenced case based on the terms contained in this Settlement Agreement, which are as follows:

1. The Parties agree EKPC will retain the wholesale rate increase of \$19 million, granted by the Commission on an interim basis effective on April 1, 2007, as a permanent rate increase; and that EKPC will raise its wholesale rates by an additional annualized amount of \$19.5 million for service rendered on and after November 1, 2007, for a total general rate increase of \$38.5 million effective on that date. The Parties agree that any Fuel Adjustment Clause basing point change that is approved by the Commission prior to November 1, 2007 will be considered a part of EKPC's existing rates on that date, and not a part of the rate increase agreed to by the Parties herein.
2. The Parties agree that this rate increase will be allocated to EKPC's individual customer classes on the proportion of demand-related revenues, and in accordance with the rate design methodology, reflected in Exhibit A, which is attached hereto.



## CONFIDENTIAL

3. The Parties agree that this wholesale rate increase will be passed through to EKPC's Member Systems' retail rates by the methodology specified by the Commission, pursuant to KRS §278.455.
4. The Sierra Club acknowledges that restoring the financial stability of EKPC is important to provide adequate revenues to support the implementation of the energy efficiency programs that the Sierra Club advocates, and agrees with all Parties to this case that the rate increase provided in this settlement is a reasonable and necessary step to restore such stability.
5. EKPC recognizes the value of energy efficiency programs for their potential to reduce its need for additional generating capacity, and acknowledges the Sierra Club's argument that current utility residential rate designs can discourage the implementation of programs which significantly reduce energy sales, since resulting revenue losses can threaten the full recovery of a utility's fixed costs. While EKPC agrees that the Sierra Club's concept of a "decoupled" rate design could be a viable approach to encourage the wider implementation of energy efficiency programs for residential customers on the EKPC system, EKPC and the Sierra Club acknowledge that any significant changes in rate design would need to be accepted and adopted by EKPC's member distribution cooperatives and the Commission to be effective, and that it is not feasible to determine the acceptability of such changes in rate design to EKPC's member systems within the timeframe of this case.
6. The Parties agree that the expansion of energy efficiency programs in the EKPC system is a subject that should be reviewed in detail during the next year. As a result, the Sierra Club, the AG and KIUC will be invited to be participants in Rates Task Force meetings EKPC will conduct in the near future with its member systems to develop future wholesale rate designs, and all Parties will be offered the opportunity to present information about revenue decoupling, demand side management programs, interruptible credits and any other subjects that the Parties believe would provide benefits to the EKPC system. The parties hereby acknowledge that the "statistical recoupling" mechanism described in Mr. Young's testimony will be given consideration as part of the Sierra Club's input into the review of EKPC's wholesale rates and rate design, but that it is not the only solution available to meet the goals of all Parties. EKPC will endeavor to establish the timeframe for meetings of this group as quickly as practicable following implementation of this settlement agreement. Energy efficiency, statistical recoupling, and decoupling will be considered DSM programs for which industrial customers may opt-out.
7. The Parties agree that EKPC will establish a revised process for review of new DSM activities, which will include the evaluation of Sierra Club recommendations to EKPC for additional DSM programs. EKPC agrees to review and offer comments on such programs, and to pursue the implementation of such programs which are evaluated to be economical and effective.
8. EKPC agrees to allow the Sierra Club to have access to a copy of DSManager, subject to appropriate confidentiality obligations and any applicable licensing restrictions. EKPC will allow the Sierra Club to use this program on EKPC premises and will provide assistance in facilitating use of the software program. The Sierra Club agrees to restrict usage of DSManager only to the evaluation of EKPC DSM projects and to not use and/or disclose any such results of use of the program in a public forum without explicit permission of EKPC.

## CONFIDENTIAL

9. The Parties agree that new Industrial Interruptible Rate programs may have benefits for the EKPC system, and EKPC agrees to review its existing industrial programs with the Parties, and to consider such new industrial programs. This review will include increasing the interruptible credits currently being provided to industrial customers based upon updated capacity and energy pricing for EKPC's avoided cost of new generation. This matter will be included in the Rates Task Force.
10. EKPC recognizes that cost effective distributed generation from Qualified Facilities ("QFs") can benefit the EKPC system. EKPC agrees to file an updated QF purchase tariff following the conclusion of Case No. 2006-00472 and to meet with the Parties prior to filing to elicit ideas and possible suggestions for the filing.
11. The Parties request that the Commission suspend the remainder of the Procedural Schedule established for this case, and schedule appropriate proceedings for review and approval of this Settlement Agreement.
12. The Parties agree that if the Commission materially alters this Settlement Agreement, then any Party hereto may elect to withdraw its consent and this Settlement Agreement will be null and void. Before withdrawing from the Settlement Agreement, the Parties agree to renegotiate in good faith to try to reach a supplemental settlement.
13. This Settlement Agreement is subject to the approval of the Commission and shall not be deemed to affect the jurisdiction of the Commission or to in any way supersede Chapter 278 of the Kentucky Revised Statutes.
14. The Parties agree that this Settlement Agreement is reasonable given EKPC's status as an electric power cooperative, owned by its members, rather than an investor-owned utility, the unique and unusual circumstances in this proceeding, and the belief based on those circumstances and the evidence that the failure to grant this amount of general increase will materially impair or damage the Company's credit or operations. Nothing in this Settlement Agreement shall be considered as precedent in future cases before the Commission.
15. Upon formal adoption and acceptance by the Commission of any of the terms of this Settlement Agreement as a resolution of the issues dealt with herein in regard to EKPC's proposed wholesale rate adjustment, all Parties agree that no petition for rehearing, pursuant to KRS §278.400, nor any appeal, pursuant to KRS §278.410, will be filed by any Party regarding such issues so resolved in this case.

IN WITNESS WHEREOF, the duly authorized counsel for the Parties have affixed their signatures to this Settlement Agreement on the date first above written.

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**COUNSEL FOR KENTUCKY INDUSTRIAL**  
**UTILITY CUSTOMERS INC.**

**Board Agenda Item**

AUGUST

**TO:** Fuel and Power Supply Committee and Board of Directors

**FROM:** Robert M. Marshall *Robert M. Marshall*

**DATE:** August 3, 2007

**SUBJECT:** Approval of Coal Supply Contract Amendment No. 1 with M. C. Mining, LLC—Spurlock Power Station Unit No. 2 (Executive Summary)

**KEY MEASURE(S)** This Supports Reliable and Competitive Energy Costs

**Background**

East Kentucky Power Cooperative, Inc., (“EKPC”) has a coal supply contract with M. C. Mining, LLC (“MC”) that currently provides 240,000 tons of coal per year for Spurlock Power Station Unit No. 2. This contract began January 1, 2005, and is due to expire December 31, 2007. MC has been a very reliable and accommodating supplier to EKPC. MC mines coal in the Central Appalachian, Northern Appalachian, and Illinois Basin.

EKPC’s current projected date for scrubber activation at Spurlock Power Station Unit No. 2 is October 2008. Therefore, the fuel group has negotiated with MC to continue shipping compliance coal to Spurlock Power Station until the scrubber startup and switch to a scrubber-type coal at that point for a period of six years. This agreement will have a market price reopener for the compliance coal between September 1, 2007, and October 1, 2007. If this reopener is successful, another reopener will occur during the time of April 1, 2008, through May 31, 2008, to establish a price for the scrubber quality coal. Again, if the reopener is successful, another reopener will occur during the months of June 1, 2011, and July 31, 2011, to determine pricing for the final three years of the contract. Yearly tonnage commitment will remain at 240,000 per year.

**Justification and Strategic Analysis**

The contract amendment recommended by management will provide an adequate fuel supply source for EKPC’s generating units and will enable EKPC to continue to generate power for the lowest cost possible for its Member Systems. This recommendation supports EKPC’s key measures for reliable and competitive energy costs.

## Board Agenda Item

AUGUST

### Recommendation

Management recommends that the Board of Directors approve Amendment No. 1 with MC to extend the term and monthly shipments of the current contract through September 30, 2014. Coal quality will convert to scrubber-type coal at EKPC's scheduled time, and price reopeners will occur as described herein.

eh/gv

**Board Agenda Item**

AUGUST

**TO:** Power Delivery Committee and Board of Directors

**FROM:** Robert M. Marshall *Robert M. Marshall*

**DATE:** August 3, 2007

**SUBJECT:** Approval of E.ON System Upgrade Projects, Bracken County-Griffin Jct Line Rebuild Project, Denny Capacitor Bank Project, Miscellaneous System Upgrade/Addition Projects, Tharp #2 Substation Addition Project, Moranburg Substation and Tap Project, Sabert Substation and Tap Project, Williamstown Substation Upgrade Project, Munk #2 Substation Addition Project, and Amendment of EKPC Three Year Work Plan (November 2005-October 2008)  
(Construction and Finance)  
(Executive Summary)

**KEY MEASURE(S)** This action supports the delivery of facilities at a competitive cost, on time and of good quality, and the reliable delivery of power to our Members.

**Background**

An Amendment to the East Kentucky Power Cooperative’s (“EKPC”) Rural Utilities Service (“RUS”)-required Three-Year Work Plan (November 2005-October 2008) identifies additional transmission facilities and modifications needed by EKPC to economically and reliably serve projected load growth. This work plan amendment was developed from the results of load flow and economic analysis using input from EKPC member system work plans, EKPC’s Market Research Process, Power Delivery Maintenance Process and Power Delivery Expansion Process.

This amendment covers two categories of projects including:

- (1) Transmission Line Additions and/or Modifications
- (2) New Substations, Substation Additions and/or Modifications

**Justification and Strategic Analysis**

Categories (1) and (2) above consist of facilities related to member system distribution substations and improvements to the transmission system.

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- A. Power flow analysis results indicate potential low voltages could occur at the Grants Lick #2 substation during an outage of the Stanley Parker-Grants Lick 69 kV line in 2008 Summer. Four alternatives were evaluated to improve the voltages in the area. The only two alternatives that were found to be effective were either replacing the 2/0 ACSR conductor with 556 ACSR conductor in the Bracken County-Griffin Jct. 69 kV line (at an installed cost of \$1,562,000), or constructing a new 138/69 kV substation near Griffin Jct. and associated line upgrades (at a total installed cost of \$4,000,000). The new 138/69 kV substation near Griffin Jct. does not provide sufficient benefits to offset the much higher costs. Therefore, the Bracken County-Griffin Jct. 69 kV line rebuild has been identified as the preferred solution to area voltage problems. The total project cost is \$1,562,000 with a target in service date of May 2008.
- B. A system-impact study (SIS) for the J.K. Smith generator additions (CTs #9 & 10, CFB Unit #1) has been completed by EKPC. Transmission-system modifications on the EKPC system were identified and recommended to the EKPC Board of Directors for approval at the July 2005 meeting as a result of this SIS. The primary projects recommended previously were the J.K. Smith-West Garrard 345 kV line and the West Garrard 345 kV Substation. Additional coordination with E-ON U.S. has resulted in identification of several system upgrades on the E-ON system needed to avoid system problems with the existing and/or planned J.K. Smith generators fully dispatched. These projects are upgrades of the following E-ON facilities: Fawkes-Clark County 138 kV line (conductor clearance and disconnect switches), Lake Reba-Waco 69 kV line (conductor clearance), Pineville 345-161 kV transformer (circuit breaker), Fawkes Tap-Fawkes 138 kV line (conductor), Boonesboro North 138-69 kV transformer (circuit breaker), Beattyville-Delvinta 161 kV line (metering equipment), Fawkes-Crooksville Jct. 69 kV line (disconnect switches), and Lake Reba Tap-West Irvine 161 kV line (line trap & current transformers). These facilities should be upgraded to avoid the possibility of generator restrictions at J.K. Smith due to E-ON equipment loading limitations. The total cost of these upgrades is estimated at \$2,965,000 with in-service dates in the period from December 2007 through May 2011.
- C. Power flow analysis results indicate that inadequate voltage levels could be experienced in the McCreary/Wayne/Clinton Counties area in 2007/08 Winter for any one of three outages (the Wolf Creek-Wayne County-McCreary County 161 kV line, the Wayne County 161-69 kV transformer, or the McCreary County 161-69 kV transformer) with EKPC's Cooper Unit #2 off. The lowest voltage level expected for these conditions is 90.2% at the Zula 12.5 kV distribution bus, which is 2.3% below EKPC's minimum requirement. A new 69 kV, 33.17 MVAR capacitor bank at the Denny Substation has been identified as the least-cost solution to defer these voltage problems for several years. This capacitor bank will provide widespread benefits for voltage levels in the area as well. The estimated cost of the project is \$273,000 with a target in service date of December 2007.

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- D. As part of the planned Warren RECC addition, EKPC purchased a 161 kV structure designed specifically for installation at the Barren County Substation. This structure has limited value elsewhere on the EKPC system. Therefore, it is recommended that the 161 kV structure be installed at Barren County. This will provide the future structure needed for circuit-breaker additions when another 161 kV line is needed into Barren County. Furthermore, the existing protection scheme on the Barren County 161-69 kV autotransformer is marginal, which exposes the transformer to increased risk of failure. Installation of a 161 kV circuit-switcher to provide improved protection for the Barren County autotransformer is recommended. The total project cost is \$170,000 with a target in service date of May 2008.
- E. Circuit breakers #614 and #624 at EKPC's Falcon Substation are scheduled to be replaced in 2007 and/or 2008 due to their age and condition. Due to physical limitations, it is necessary to remove breaker #604 at Falcon to access these two breakers. Due to the age and condition of breaker #604, it is not desirable to re-install this breaker after it has been removed to allow access to breakers #614 and #624. Breaker #604 provides interrupting capability for faults on the Falcon-Magoffin County 69 kV line. A 69 kV breaker is not presently installed at Magoffin County for this line, so a fault on the line will de-energize the entire Magoffin County 69 kV bus. Therefore, it is recommended that a new 69 kV breaker be installed at Magoffin County for the Falcon-Magoffin County 69 kV line to provide interrupting capability. This capability will effectively be shifted from the Falcon Substation to the Magoffin County Substation, which will greatly improve the reliability of the Magoffin County Substation. The reliability at the Falcon Substation will still be acceptable to EKPC. The estimated cost of this breaker installation at Magoffin County is \$100,000 with a target in service date of September 2007.
- F. Power flow analysis results indicate that inadequate voltage levels could be experienced at the Bass 12 kV distribution bus in 2008/09 Winter for an outage of the Liberty Jct.-Casey County-Marion County 161 kV line with Cooper Unit #2 off. The voltage level expected for these conditions is 92.3%, which is 0.2% below EKPC's minimum requirement. Increasing the size of the existing 69 kV capacitor bank at the Peyton's Store Substation from 7.14 MVAR to 14.29 MVAR has been identified as the least-cost solution to defer these voltage problems for several years. This bank can be re-sized as specified while remaining within EKPC's voltage rise criteria for capacitor banks. The estimated cost of the project is \$36,000 with a target in service date of December 2008.
- G. Power flow analysis results indicate that several 600-amp switches on the 69 kV transmission system need to be replaced due to potential overloads. These switches are:
- a. S81-605 at the Hickory Plains Tap (Crooksville Jct.-Hickory Plains Tap line



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section) could be overloaded by 1.8% in 2007/08 Winter during contingency conditions. The estimated cost to replace this switch with a 1200-amp switch is \$12,000 with a target in service date of December 2007

- b. W60-615 at the Tharp Jct. (Etown KU-Tharp Jct. line section) could be overloaded by 1.8% in 2007/08 Winter during contingency conditions. The estimated cost to replace this switch with a 1200-amp switch is \$12,000 with a target in service date of December 2007
- c. W60-605 at the Tharp Jct. and W5-635 at Etown #2 (Tharp Jct.-Etown #2 line section) could be overloaded by as much as 2.8% in 2010/11 Winter during contingency conditions. The estimated cost to replace these switches is \$26,000 with a target in service date of December 2010.

H. Nolin Rural Electric Cooperative Corporation (“NRECC”) is experiencing significant load growth in the vicinity of the Tharp Substation in Hardin County. The 2006 Power Requirements Study (“PRS”) projects Tharp Substation to reach 15.8 MVA under extreme 2008 summer conditions. The existing transformer has a maximum summer rating of 13.6 MVA and would experience a 16.2 percent overload under these conditions. A joint planning study between EKPC and NRECC has confirmed the need and justification for constructing Tharp #2 69-12.5 kV, 11.2/14 MVA Substation Addition. The total project cost is \$777,000 with a target in service date of June 2008.

This project replaces the previously approved Flint Ink Substation and Tap project.

I. EKPC and Hilltop Companies are working to establish a new limestone mining facility on EKPC property surrounding its Spurlock Power Plant near Moranburg, Kentucky. The new mining facility will be located in Fleming-Mason Energy Cooperative’s (“FME”) service territory and will have an electrical demand of approximately 5.0 MW beginning in 2009. The plant will include multiple crushers and conveyor systems with several large motors. The existing 25kV distribution circuit extending from the Maysville Industrial Park Substation is inadequate for serving the new load without compromising the service reliability of existing loads.

A joint planning study between EKPC and FME has confirmed the need and justification for a new 138-25 kV, 12/16/20MVA distribution substation (“Moranburg”) and 0.19 mile, 138 kV transmission tap line from EKPC’s existing Spurlock – Stanley Parker 138 kV line. The new Moranburg Substation will provide a strong electrical source for the new limestone plant and eliminate costly distribution system improvements.

This project is approximately \$43,000, or 3.1 percent, more than the least cost plan in

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twenty-year present worth 2007 dollars. However, the additional reliability and operational benefits outweigh the additional costs. The total estimated project cost is \$1,387,000 with a target in service date of April 2009.

This project is contingent upon a fully executed agreement between EKPC and Hilltop Companies.

- J. Salt River Electric Cooperative Corporation (“SRECC”) is experiencing significant load growth in the vicinity of the Brooks Substation in Bullitt County. The PRS projects Brooks Substation to reach 13.3 MVA under extreme 2009 summer conditions. The existing transformer has a maximum summer rating of 13.6 MVA and would experience 97.8 percent loading under these conditions. A new 4.0 MW industrial load, called Sabert, is currently under construction and will increase the loading on Brooks Substation to approximately 17.7 MVA (130%) under extreme 2009 summer conditions.

A joint planning study between EKPC and SRECC has confirmed the need and justification for a new 69-12.5 kV, 11.2/14MVA distribution substation (“Sabert”) and 0.4 mile, 69 kV transmission tap line from E.ON’s Blue Lick – South Park/Watterson 69kV line. The new Sabert Substation will reduce the load on Brooks Substation and provide additional substation capacity for future load development in the area.

This project is approximately \$41,000, or 2.8 percent, more than the least cost plan in twenty-year present worth 2007 dollars. However, the additional reliability and operational benefits outweigh the additional costs. The total estimated project cost is \$950,000 with a target in service date of April 2009.

- K. Owen Electric Cooperative (“OEC”) is experiencing significant load growth in the vicinity of the Williamstown Substation in Grant County. The 2006 PRS projects Williamstown Substation to reach 15.0 MVA under extreme 2009 summer conditions. The existing transformer has a maximum summer rating of 13.6 MVA and would experience a 10.3 percent overload under these conditions. A joint planning study between EKPC and OEC has confirmed the need and justification for upgrading Williamstown Substation to 69-12.5 kV, 15/20/25 MVA. The total project cost is \$789,000 with a target in service date of June 2009.
- L. OEC is experiencing significant load growth in the vicinity of the Munk Substation in Gallatin County. The 2006 PRS projects Munk Substation to reach 16.4 MVA under extreme 2009 summer conditions. The existing transformer has a maximum summer rating of 13.6 MVA and would experience a 20.6 percent overload under these conditions. A joint planning study between EKPC and OEC has confirmed the need and justification for constructing Munk #2 to 69-25 kV, 11.2/14MVA. The total project cost is \$876,000 with a target in service date of June 2009.

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RUS requires approval of the Board for amendment of the current EKPC RUS-approved Three-Year Work Plan. Construction of the added projects requires review by the Power Delivery Committee and approval pursuant to Board Policies No. 103 and 106.

### **Recommendation**

Management recommends that the EKPC Board approve an Amendment of the current EKPC RUS approved Three-Year Work Plan (November 2005-October 2008) dated August 14, 2007, to include those projects identified above at an estimated total cost of \$9,935,000 and to approve construction of these projects along with authorization to acquire necessary permits, approvals, real property and associated easements necessary and desirable to implement these projects.

GM

**EAST KENTUCKY POWER COOPERATIVE, INC.  
MINUTES OF BOARD MEETING  
SEPTEMBER 11, 2007**

A regular meeting of the Board of Directors of East Kentucky Power Cooperative, Inc. ("EKPC") was held at the Headquarters Building, 4775 Lexington Road, Winchester, Kentucky, on Tuesday, September 11, 2007, at 10:28 a.m. EDT, pursuant to proper notice.

Chairman Wayne Stratton called the meeting to order. E. A. Gilbert gave the invocation. The minutes were kept under the supervision of Secretary A. L. Rosenberger. The secretary took the roll call with the following directors present:

Michael Adams	Licking Valley
Allen Anderson, Alternate	South Kentucky
Fred Brown	Jackson
P. D. Depp	Taylor County
Danny Divine	Inter-County
E. A. Gilbert	Blue Grass
Elbert Hampton	Cumberland Valley
Hope Kinman	Owen
Jimmy Longmire	Salt River
Wade May	Big Sandy
Bill Rice	Grayson
A. L. Rosenberger	Nolin
Randy Sexton	Farmers
William Shearer	Clark Energy
Wayne Stratton	Shelby
Lonnie Vice	Fleming-Mason

Also present were Board Counsel J. B. Johnson, RUS representative Mike Norman, and Tim Sharpe from Salt River Electric.

**ANNOUNCEMENTS**

- Many concerns were mentioned with regard to co-op family and friends.

**BOARD MINUTES**

On motion of P. D. Depp, seconded by Randy Sexton, and passed, the August 14, 2007, board meeting minutes were approved as mailed.

## ADOPTION OF AGENDA

On motion of Allen Anderson, seconded by E. A. Gilbert, the agenda was approved as mailed with revisions to an item under the Fuel & Power Supply Committee pertaining to the GE Contract CT901 for Combustion Turbines at the J. K. Smith Station.

## SEATING OF ALTERNATE DIRECTOR

A motion was made by Wade May, seconded by P. D. Depp, and passed to approve seating Bill Prather as Alternate Director, representing Farmers RECC, to the EKPC Board of Directors.

## REPORT OF THE OFFICERS

### Report of the President and CEO

Power Pulse Video – Kevin Osbourn and Jerry McDonald presented the Fall 2007 Power Plus video. Copies are available for those who wish to view the video with their employees, and these will be presented quarterly.

Cooper Power Station/Wolfe Creek Dam Update – Bob Marshall and John Twitchell provided an update on the status of repairs to the Wolf Creek Dam and preparations at Cooper Power Station for low lake water levels. This situation continues to be monitored and evaluated. Recently EKPC representatives traveled to Nashville for a presentation on the status of the Wolf Creek Dam. Although the Corps of Engineers ("COE") says the repairs are going well, the most recent correspondence from the COE says water users should be prepared to be able to operate with a water level of about 650', which is below the level needed for Cooper Station operations. EKPC's current plan is to increase the number of barge pumps from four to a total of eight. Should the water level drop, these pumps would allow operation of both units at Cooper Station through the winter season. That would allow EKPC to make a decision at the end of this year on whether or not or when to erect a cooling tower. These elements are in the PSC-approved plan. We are timing the implementation of that plan in order to minimize capital expenditures and still protect the plant during low-water operations. Thus far, EKPC has not undertaken any action that was not already in our PSC-approved plan.

Rate Case Hearing – A hearing was held at the PSC in Frankfort on September 5 regarding EKPC's proposed base rate increase. All parties are to file briefs by October 5 and the PSC will then have until December 5 to render a decision. Mr. Marshall noted that all three Intervenor's agreed on the revenue requirement and there is no contention on the \$38.5 million; the Sierra Club's contentions are other issues and so will not become a party to the stipulations.

North Star Initiative and Budget Updates – Discussions were held with the Member System Managers on Monday, September 10. Updates will be presented in October. There are four North Star teams working toward the Initiative.

Herald-Leader Interview – Mr. Marshall noted that following the rate case hearing, a reporter asked for an interview. Marshall reviewed for the Board some of the questions asked, which were other than rate-case related. A story about EKPC can be expected in the near future. He asked that if anyone receives a call from a newspaper reporter regarding EKPC to please refer them to EKPC Director of External Affairs Nick Comer. He can be reached at 859-745-9450.

Acid Rain EPA case (Dale 1 and 2 boiler plate issue) Update – David Smart reviewed this item. EKPC has signed the Consent Decree and returned it to the government for their approval—there is no indication that it is not acceptable. They recently requested a picture of Dale Station to put in their press release. As soon as we know when the Consent Decree is to be filed with U. S. District Court in Lexington and open for public comment, we will relay that information.

New Source Review (Clean Air Act) EPA case (Spurlock 2 and Dale 3 and 4) – Approximately a week ago, the justice department moved to enter the Consent Decree in this case.

During the Fuel and Power Supply Committee Information and Discussion items, Sherman Goodpaster elaborated on this update regarding the entering of the Consent Decree, saying it is a timing issue. After the judge enters the Consent Decree, EKP has 60 days to come into compliance with the Decree.

Spurlock Station Unit No. 4 / Air Permit – Mr. Smart told the Board that initially the Sierra Club requested a hearing before the DAQ Administrative Hearing Officer to challenge DAQ's issuance of the permit and which the hearing officer affirmed. The Sierra Club now has a period of time to appeal that decision to Franklin Circuit Court.

The second issue is there is a federal procedural process whereby an affected party can challenge the EPA on the federal level regarding a state's issuance of an air permit. The Sierra Club sued the EPA in federal district court in Washington, D.C. over a number of air permits the EPA had not challenged at the state level, with the Spurlock 4 permit being one of them. EPA entered into a Consent Decree to resolve the litigation. EPA then ruled on EKPC's Spurlock Unit 4 air permit seeking clarification of EKPC's coal/fuel analysis under BACT and a heat input issue relative to Spurlock Unit 2. EKPC is responding to both issues.

#### AUDIT COMMITTEE ACTION ITEMS

No Audit Committee items were brought before the Board.

#### AUDIT COMMITTEE INFORMATION ITEMS

No Audit Committee information items were brought before the Board.

#### OPERATIONS, SERVICES AND SUPPORT (“OSS”) COMMITTEE ACTION ITEMS

##### October 2007 Board Meeting

After review of the applicable information, a motion was made by P. D. Depp and, there being no further discussion, passed to approve the following:

**Whereas**, On October 7-9, 2007, the National G&T Managers’ Association Meeting is scheduled to be held in La Crosse, Wisconsin. This will conflict the our regular Board meeting scheduled for October 9.

**Whereas**, Management and the Operations, Services & Support Committee recommend changing the October 2007 Board meeting date; now, therefore, be it

**Resolved**, That the October 2007 Board meeting date be changed to October 2, 2007, due to the conflict with the above-stated meeting.

##### Board Policy 505—Insurance Benefits

After review of the applicable information, a motion was made by P. D. Depp and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc. (“EKPC”) management periodically reviews and revises Board Policies and benefit plans to ensure they remain viable and cost competitive while meeting stated objectives; and

**Whereas**, EKPC is a Participating System in the NRECA-sponsored group benefits, which include employee, employee dependent, and retired employee term life and accidental death and dismemberment insurance coverage; and

**Whereas**, NRECA changed their employee group term life coverage effective January 1, 2008, which requires EKPC to change the employee group term life coverage made available to EKPC employees and retired employees; and

**Whereas,** Certain changes in Board Policies (Policy No. 505 – Insurance Benefits) copies of which are attached hereto, are required to reflect management’s recommended changes to EKPC Employee Benefits related to changes in the group term life and accidental death and dismemberment insurance coverage available to employees and their dependents and to retired employees, and business travel insurance available to the President & CEO and executive positions who directly report to the President & CEO; and

**Whereas,** The Board of Directors (“Board”) of EKPC, as recommended by management, now desires to amend these insurance coverages and does authorize the subject amendments, effective the first day of January, 2008, by authorizing the appropriate policy revisions; now, therefore, be it

**Resolved,** That the Board hereby approves revisions to Board Policy No. 505 – Insurance Benefits, as attached; and

**Resolved,** That the Board hereby approves the amendments to EKPC’s group term life insurance benefits to conform to the NRECA Group Benefits program as it pertains to the employee group term life and accidental death and dismemberment, and retired employee benefits, as detailed in the attached executive summary, effective January 1, 2008.

Shared Services—EKPC/Big Rivers/Hoosier

After review of the applicable information, a motion was made by P. D. Depp and, there being no further discussion, passed to approve the following:

**Whereas,** East Kentucky Power Cooperative, Inc.'s ("EKPC") Board of Directors ("Board") and its member systems desire to pursue effective measures to provide competitive energy to consumers, including partnering with entities for shared services;

**Whereas,** EKPC has held discussions with Big Rivers Electric Corporation ("Big Rivers") and Hoosier Energy Rural Electric Cooperative, Inc. ("Hoosier") regarding partnering opportunities and working toward shared services;

**Whereas,** The Operations, Services and Support Committee recommends that the EKPC Board approve the appointment of the EKPC Board Officers (3) to form a committee (of 9) along with Big Rivers (3) and Hoosier (3), with input from the entities' CEOs, to hold further discussions;

**Whereas,** This committee would develop a list of priorities to be brought back to the respective Boards for approval; and

**Whereas,** The Operations, Services and Support Committee and Board Officers recommend that the Board authorize the Board officers to serve on such a shared services committee; now, therefore, be it



**Resolved**, That the EKPC Board approves the appointment of its Chairman, Vice-Chairman, and Secretary, along with representatives from Big Rivers and Hoosier, to form a committee to hold further discussions to develop and evaluate proposals for possible shared services; and

**Resolved**, That this committee is directed to develop a list of priorities for such shared services, to be brought back to the respective Boards for approval; and

**Resolved**, That the EKPC Board authorizes its officers and CEO to execute and attest all necessary documents, including confidentiality agreements, related to EKPC's participation in such discussions.

#### OSS COMMITTEE INFORMATION ITEMS

OSS Committee Chairman P. D. Depp said the Committee discussed recommendations for the 2007-2008 Compensation changes as mailed to each Board member. This item will be brought before the Board in October.

#### FUEL AND POWER SUPPLY ("F&PS") COMMITTEE ACTION ITEMS

Modifications to Spurlock Units Nos. 1 and 2 Re: Flue Gas Emission Limits—Authorized Execution of Documents; and Ratification of Execution of Catalyst Contract OS267/OS268

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas**, East Kentucky Power Cooperative, Inc., ("EKPC") entered into a New Source Review Consent Decree ("Consent Decree") with the United States Environmental Protection Agency in May 2007;

**Whereas**, The Consent Decree will require more stringent emission limits for NOx that the units are currently achieving.

**Whereas**, On June 11, 2007, the Board approved modifications to the Unit No. 1 and No. 2 SCRs to furnish and install an additional layer of catalyst and additional catalyst soot blower; ammonia system modifications, and furnish and install new low NOx burners for Unit No. 1 for an estimated cost of [REDACTED]; approved the amendment of the Three-Year construction Work Plan as needed and approved the use of general funds, when and if such funds became available, and

**Whereas**, The Fuel and Power Supply Committee and EKPC Management recommend the Board authorize the President and Chief Executive Officer, or his designee, to

execute all necessary document in order to proceed with the June 11, 2007 Board action for modifications and improvements to Spurlock Power Station Unit No. 1 and No. 2 and to ratify the execution of the Catalyst Contract, OS267/OS268, by the President and Chief Executive Officer; now, therefore, be it;

**Resolved,** That the EKPC Board authorize the President and Chief Executive Officer, or his designee to execute all necessary documents in order to proceed with the June 11, 2007 Board action for modifications and improvements to Spurlock Power Station Unit No. 1 and No. 2 and to ratify the execution of the Catalyst Contract by the President and Chief Executive Officer.

Amendment to Contract CT901 w/GE Package Power, Inc.—Smith Station Combustion Turbines

After review of the applicable information, a motion was made by Jimmy Longmire and, there being no further discussion, passed to approve the following:

**Whereas,** On March 10, 2005, East Kentucky Power Cooperative, Inc. (“EKPC”) signed a contract with GE Package Power, Inc. (“GE”) for five LMS 100 Gas Combustion Turbine Generators (“CTs”) to be constructed at the J. K. Smith Power Station (“Smith Station”) for a price of [REDACTED];

**Whereas,** EKPC sought to amend the GE contract from five to two LMS 100 CTs following Warren Rural Electric Cooperative’s decision to withdraw from its power supply agreement with EKPC;

**Whereas,** On June 11, 2007 the Board approved an amendment to the GE Contract CT901 to reduce the number of LMS 100 CTs from five (5) to two (2), at a firm equipment furnish price of [REDACTED], and an estimated balance of plant cost of [REDACTED], on an “open-book”, “cost-plus” basis;

**Whereas,** The most recent GE proposal revises the fixed price to reflect delayed delivery from late 2007 to late 2008 at a new price of [REDACTED] per unit. GE will no longer provide the balance of plant equipment and erection services and the balance of plant cost including construction is to be removed from GE’s scope of work and purchased by EKPC directly from the vendor and erection contractor;

**Whereas,** EKPC has continued to engage in contract talks with GE, and has now negotiated a new contract price based on equipment delivery in the fourth quarter of 2008 at a firm price for two (2) LMS 100 CTs for [REDACTED] and engineering and procurement services, construction management, and installation and commissioning services for a firm cost of [REDACTED];

**Whereas,** The total revised project cost for purchasing and installing two (2) LMS 100 CTs, including an estimate for the balance of plant cost, plus a generator step-up transformer, site development, site modifications and a contingency amount is currently estimated at \$155.8 million (excluding IDC);

**Whereas,** Management and the Fuel and Power Supply Committee recommend the approval to amend the GE CT901 Contract to reflect the purchase of two (2) LMS 100 CTs at a new firm contract price and for engineering and procurement services, construction management and installation and commissioning services; now, therefore, be it

**Resolved,** That the Board approves the amendment to the GE CT901 Contract to reflect the new negotiated firm price with GE for two (2) LMS100 CTs at [REDACTED] and a firm cost of [REDACTED] for engineering and procurement services, construction management, and installation and commissioning services at the J. K. Smith Power Station at an estimated total project cost of \$155.8 million (excluding IDC); and to amend the Three Year Construction Work Plan to include this project as revised herein; and

**Resolved,** That the President and Chief Executive Officer, or his designee, is hereby authorized to take all appropriate actions to obtain any permits or approvals needed for the subject construction or operation of the project; execute any and all necessary contracts and other documents relating to said project; and, that approval is given for use of general funds or other available short term funds, subject to reimbursement from loan funds, when and if such funds become available.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

#### **F&PS COMMITTEE INFORMATION ITEMS**

New Source Review (Clean Air Act) EPA case (Spurlock 2 and Dale 3 and 4) – Sherman Goodpaster spoke to this and it is recorded under the Report of the President and CEO and under this title above.

Report on Fall Outages – Craig Johnson reported outages schedule for this fall, including Dale Unit 1 for low-NOx burners, same work for Dale Unit 2, an eight-week outage for Dale Unit 3 for a turbine/generator overhaul. Cancelled is the Spurlock Unit 1 outage and the Cooper Unit 1 outage. Cooper Unit 2 is scheduled for a valve overhaul outage and Smith Station Combustion Turbine No. 3 is schedule for a major overhaul. Spurlock Unit 2 will be down for a routine outage.

A question was asked regarding an earlier reference to not taking down Spurlock 1 because Spurlock 2 and Gilbert (Spurlock 3) would have to be derated. The question was what happens if there is a forced outage at Spurlock 1, do we have insurance, backup power, or anything else to accommodate that. Jim Lamb responded. Additionally, Dave Eames noted that EKP has property insurance if the transformer is lost—\$1 million deductible. EKP sometimes procures summer and or winter outage insurance, and it is reviewed annually as to our needs.

## POWER DELIVERY ("PD") COMMITTEE ACTION ITEMS

### Close-Out of Contract 0598X—North Clark 345 kV Transmission Station Construction

After review of the applicable information, a motion was made by Bill Shearer and, there being no further discussion, passed to approve the following:

**Whereas**, The East Kentucky Power Cooperative, Inc. ("EKPC") Board of Directors, ("Board") at its March 14, 2006 meeting, authorized the award of contract for the construction of the North Clark 345 kV Transmission Station.

**Whereas**, This project was awarded to Beta Engineering LLC under Contract 0598X based on a firm unit price totaling [REDACTED] exclusive of owner furnished materials and was completed, with two change orders, for the amount of [REDACTED];

**Whereas**, Beta Engineering LLC has completed this project and fulfilled all of the terms and conditions of Contract 0598X and is entitled to and has earned the balance remaining on this contract of [REDACTED];

**Whereas**, EKPC Management and the Power Delivery Committee recommends close-out of this contract for the amount of [REDACTED] and a final payment to Beta Engineering LLC of [REDACTED]; and

**Whereas**, This recommendation supports the delivery of facilities at a competitive cost, on time, and of good quality and the reliable delivery of power to our Members; now, therefore, be it

**Resolved**, That the Board approve the close-out of Contract 0598X for the sum of [REDACTED] and authorizes the President and Chief Executive Officer or his designee, to make final payment of [REDACTED] to Beta Engineering LLC and to execute all documents necessary to close-out this contract.

## PD COMMITTEE INFORMATION ITEMS

PD Committee Chairman Bill Brashear reported that the Committee heard several reports by Mary Jane Warner and George Carruba.

## MEMBER SYSTEM NEEDS

South Kentucky Rural Electric/The Monticello Plant Board – Jim Lamb provided and reviewed a handout titled "South Kentucky and Its Acquisition of the Monticello Plant Board—What This Means for EKPC." The Monticello Plant Board ("MPB") is a municipal electric company served by TVA although not directly connected to TVA. MPB

has agreed to be acquired by South Kentucky, subject to voter approval in November 2007. This situation will be updated at that time.

**EKPC DIVISION MONTHLY REPORTS**

Chairman Stratton noted the monthly reports as included in the Board books.

**AGENDA ITEMS FOR NEXT AGENDA**

No agenda items for the next agenda were brought before the Board.

**OTHER BUSINESS**

EKPC Board Policies – A suggestion was made by E. A. Gilbert that all Board policies be brought up to date.

There being no further business, the meeting was adjourned at 11:40 a.m.

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\_\_\_\_\_  
A. L. Rosenberger, Secretary

Approved:

R. Wayne Stratton  
Chairman of the Board

Date:

## EAST KENTUCKY POWER COOPERATIVE

POLICY NO. 505

July 6, 1979

INSURANCE BENEFITS

## I. OBJECTIVE

To provide insurance benefits which will enable East Kentucky Power Cooperative ("EKPC") to attract and retain competent personnel and to provide protection for Directors and Alternate Directors, as indicated, while traveling on official business for EKPC.

## II. CONTENT

A. The following fringe benefits are available to all [regular] full-time employees and are subject to the specific terms and conditions of currently applicable policies.

1. EKPC will make available the following employee benefits (certain benefits will require employee contributions):

Retirement Security Program - 2% Benefit Level (Employees hired prior to 01/01/07 only)  
 [401K Pension Plan – 2% Employer Matching (Employees hired prior to 01/01/07 only)  
 401K Pension Plan – 6% Employer provided and 4% Employer matching (Employees hired on or after 01/01/07 only)]  
 [24-Hour Accident Insurance (Self-Insured Aerial Line Inspection) (\$20,000)]  
 Business Travel Accident Insurance  
 Long-Term Disability Insurance  
 [Employee Group] Medical [& Hospitalization] Insurance  
 [Employee Group] Dental Insurance  
 Employee Assistance Program  
 Double Salary Term Life Insurance  
Double Salary Accidental Death and Dismemberment Insurance (Self-Insured Aerial Line Inspection)  
 [Employee Group Life (\$4,000 employee, \$5,000 spouse, \$1,000 dependent child, \$200 for dependent infant)]  
Group Dependent Term Life Insurance  
 Supplemental Employee Death Benefit (Employees hired prior to 01/01/07 only)  
 [Voluntary Benefits (requires employee contributions):]  
 [Employee Group] Vision  
 Voluntary Life Insurance  
 Long-Term Care

POLICY NO. 505

-2-

July 6, 1979

Section 125 Cafeteria Plan

401K Pension Plan – 2% Employer Matching of base wages [no overtime included] (Employees hired prior to 01/01/07 only)

401K Pension Plan – 6% Employer provided and 4% Employer matching of base wages [no overtime included] (Employees hired on or after 01/01/07 only)

MetLife Insurance Payroll Deduction Program

Homestead Funds

2. In the event of death of a covered employee (active or disabled), the Employee Group Medical [and Hospitalization] Insurance is available to his/her covered dependent spouse and dependent children at full cost provided, however, [that] if on the date of death, the deceased employee hired prior to 01/01/07 had at least ten (10) years of service or the deceased employee hired on or after 01/01/07 had at least twenty (20) years of service and was at least age 55, the covered dependent spouse and dependent children will receive a 50% discount. This coverage will be available until:
  - (a) spouse remarries, or
  - (b) covered spouse and/or covered children become eligible for benefits under any other employer sponsored plan, or
  - (c) a child ceases to be a dependent.
  - (d) [deceased employee hired on or after 01/01/07 65<sup>th</sup> birthday.] The 65<sup>th</sup> birthday of the deceased employee hired on or after 1/01/07.
3. Business Travel Accident Insurance
  - (a) The premium on the \$100,000 Business Travel Accident Insurance will be [paid] provided for the President and Chief Executive Officer (“President and CEO”) and [senior vice presidents and vice presidents.] executive positions who directly report to the President and CEO.
  - (b) The premium on the \$50,000 Business Travel Accident Insurance will be [paid] provided for all other full-time employees.



POLICY NO. 505

-3-

July 6, 1979

- B. The following fringe benefits are available to all temporary and part-time employees who work at least 1,000 hours in their first 12 months of employment or during any subsequent calendar year, and are subject to the specific terms and conditions of currently applicable policies.

EKPC will reimburse eligible temporary and part-time employees for 50% of their out-of-pocket medical plan insurance premiums on a monthly basis during active service. The monthly maximum reimbursement will not exceed 50% of EKPC's monthly medical contribution rates as applied to EKPC's active [regular,] full-time employees.

- C. The following benefits are available to retired employees and are subject to the specific terms and conditions of currently applicable policies:

1. EKPC will pay 1/2 the cost of the Employee Group Medical [and Hospitalization Insurance] for retired employees,[and] their spouses and dependent children[, and 1/2 the cost of the Retired Employee Life Insurance for retired employees,] if the [retiring] employee was hired prior to 01/01/07, has completed a minimum of 10 years of continuous service with EKPC, and has also attained the minimum retirement age of 55 years, or if the retiring employee was hired on or after 01/01/07, has completed a minimum of 20 years of continuous service with EKPC, and has also attained the minimum retirement age of 55 years. Employee Group Medical [and Hospitalization] Insurance for retired employees hired on or after 01/01/07 will end on the retired employee's 65<sup>th</sup> birthday or upon retirement if employee retires after his/her 65<sup>th</sup> birthday. Only the spouse and dependent children covered on the retired employee's last day of active service will be eligible for Employee Group Medical [and Hospitalization] Insurance unless they are entitled to special enrollment rights under the Health Insurance Portability and Accountability Act.

EKPC will pay 1/2 the cost of the Retired Employee Life Insurance, if the retiring employee was hired prior to 01/01/07, has completed a minimum of 10 years of continuous service with EKPC, and has also attained the minimum retirement age of 55 years, or if the retiring employee was hired on or after 01/01/07, has completed a minimum of 20 years of continuous service with EKPC, and has also attained the minimum retirement age of 55 years.

2. The Employee Assistance Plan is available at no cost to retirees, retiree dependents and dependents of deceased retirees.

POLICY NO. 505

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July 6, 1979

3. Retired Employee Life Insurance coverage is available in the amount of \$10,000. [\$1,000 increments up to a maximum of \$10,000.] The coverage of retirees who retired prior to 1/01/86 is limited to a maximum of \$5,000.
  4. Other benefits available at full cost to retirees are:
    - Long-Term Care
    - Met Life Insurance Program
    - Homestead Funds
  5. In the event of death of the covered retiree, the Employee Group Medical [and Hospitalization] Insurance is available to the surviving eligible dependent spouse and eligible dependent children [at 1/2 the full cost]. A discount rate may apply. This coverage will be available until:
    - (a) spouse remarries, or
    - (b) the covered spouse and/or covered children become eligible for benefits under any other employer-sponsored plan, or
    - (c) a child ceases to be a dependent.
    - (d) [deceased employee hired on or after 01/01/07 65<sup>th</sup> birthday.] The 65<sup>th</sup> birthday of the deceased employee hired on or after 1/01/07.
- D. The following benefits are applicable to EKPC Directors and Alternate Directors and are subject to the specific terms and conditions of currently applicable policies.
1. The premium on the \$100,000 Business Travel Accident Insurance will be paid for Directors and Alternate Directors with coverage applicable only while traveling as a Director of EKPC.
  2. The premium on the \$20,000 24-Hour Accident Insurance for Directors will be paid by EKPC.
- E. All of said insurance contracts will govern in all matters related to the insurance plans provided by EKPC. The exact coverage and the conditions for coverage of such insurance will be determined by the terms and conditions of the policy or contract. As has been our practice, EKPC reserves the absolute right to

POLICY NO. 505

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July 6, 1979

amend, suspend, withdraw, discontinue or terminate each benefit plan in whole or in part at any time for any and all participants of the plan.

- F. The President & CEO or his designee, shall be granted authority to negotiate insurance benefits outside the normal guidelines when hiring individuals from outside the organization. This granted authority is to be used only after an offer has been made within the regularly applied guidelines and only in the event that it is deemed necessary to attain the qualified individual.

III. RESPONSIBILITY

- A. The President and CEO shall, without further Board approval, approve any increased premiums charged by the carrier now providing coverage if, in his opinion, he believes such increases are justifiable.
- B. The President and CEO shall, without further authority from the Board of Directors, approve all changes to the Employee Group Health Plans covered by this policy except for the termination of any particular insurance plan.
- C. The President and CEO, or his designee, shall negotiate all insurance coverage's or changes in coverage's and make appropriate recommendations to the Board as to carrier and coverage's and cost of same except as provided in Section III. B. above.
- D. The President and CEO is responsible for seeing that these programs are properly administered and that all individuals covered by this Board policy are properly informed.

Amended: 06-20-83  
Amended: 12-13-83  
Amended: 02-11-86  
Amended: 11-13-90  
Amended: 08-03-93

Amended: 12-06-94  
Amended: 01-10-95  
Amended: 03-12-96  
Amended: 12-03-96  
Amended: 01-05-99

Amended: 02-07-00  
Amended: 10-03-06

Board Agenda Item

SEPTEMBER

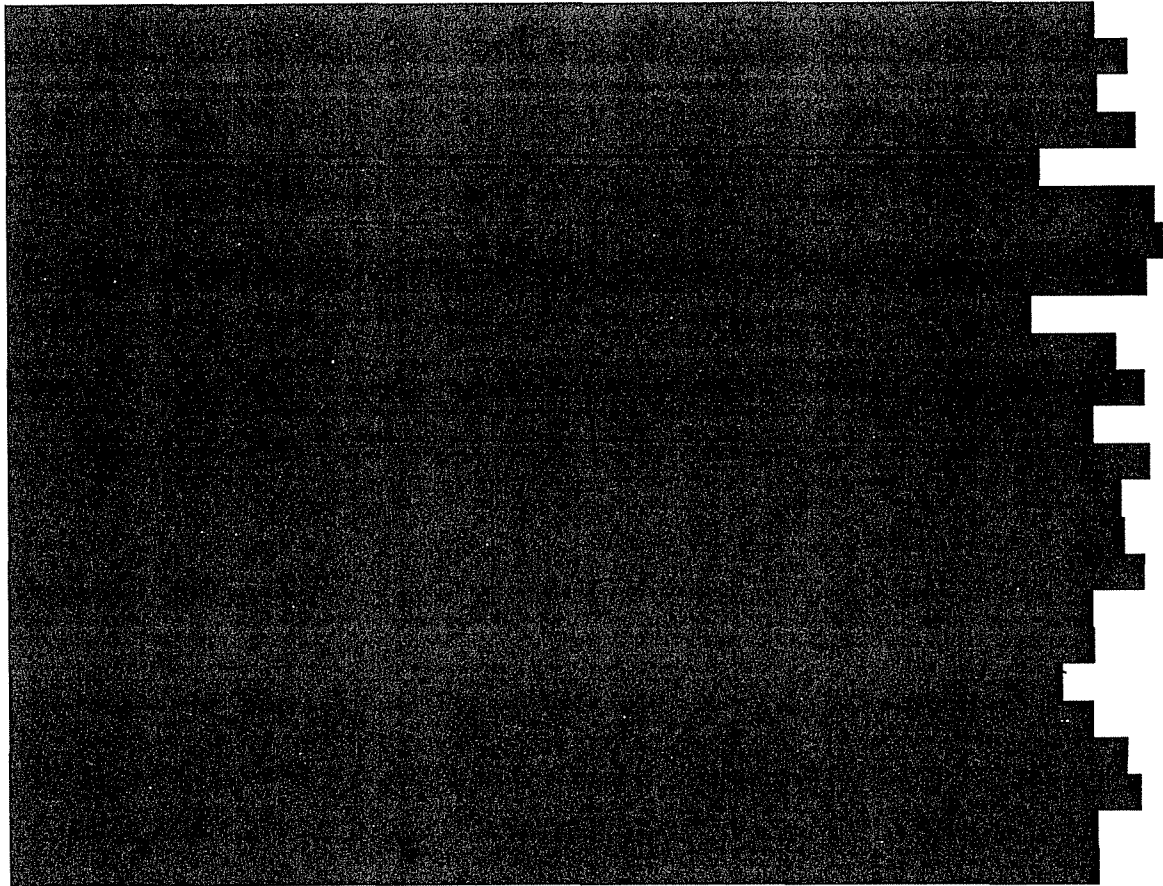
TO: Fuel and Power Supply Committee and Board of Directors

FROM: Robert M. Marshall *Robert M. Marshall*

DATE: August 31, 2007

SUBJECT: Approval of Constellation New-Energy Natural Gas Supply Contract Amendment (Executive Summary)

KEY MEASURE(S) This Supports Reliable and Competitive Energy Costs



Board Agenda Item

SEPTEMBER

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

**EAST KENTUCKY POWER COOPERATIVE, INC.**

**EXECUTIVE SESSION PORTION OF THE  
MINUTES OF BOARD MEETING  
JUNE 11, 2007**

Following is the Executive Session portion of the regular meeting of the Board of Directors of East Kentucky Power Cooperative, Inc. ("EKPC") held at the Headquarters Building, 4775 Lexington Road, Winchester, Kentucky, on Monday, June 11, 2007, which began at 9:30 a.m. EDT, pursuant to proper notice.

**EXECUTIVE SESSION**

At 9:40 a.m., Chairman Stratton requested the Board go into Executive Session, and E. A. Gilbert made the motion, which was seconded. Those remaining included the Directors, Alternate Directors, Bob Marshall, and Executive Staff, and other staff. Della Damron stayed to assist the Secretary with the minutes.

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**REPORT OF THE OFFICERS**

[REDACTED]

[REDACTED]

[REDACTED]

REDACTED

EKPC Executive Session Minutes of Board Meeting  
Page 2  
June 11, 2007



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At 10:40 a.m. a motion was made by P. D. Depp, seconded by Jimmy Longmire, and passed to go out of Executive Session.

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Approved:

ORIGINAL SIGNED

ORIGINAL SIGNED

\_\_\_\_\_  
R. Wayne Stratton  
Chairman of the Board

\_\_\_\_\_  
A. L. Rosenberger  
Secretary

Date: July 10, 2007

EAST KENTUCKY POWER COOPERATIVE, INC.

EXECUTIVE SESSION PORTION OF THE  
MINUTES OF BOARD MEETING  
JULY 10, 2007

Following is the Executive Session portion of the regular meeting of the Board of Directors of East Kentucky Power Cooperative, Inc. ("EKPC") held at the Headquarters Building, 4775 Lexington Road, Winchester, Kentucky, on Tuesday, July 10, 2007, which began at 10:30 a.m. EDT, pursuant to proper notice.

EXECUTIVE SESSION

At 10:35 a.m., Chairman Stratton requested that the Board go into Executive Session and Lonnie Vice made the motion, which was seconded and passed. Those remaining included the Directors, Alternate Directors, Board Counsel J. B. Johnson, Bob Marshall, Executive Staff, Roger Cowden, and Craig Johnson. Della Damron stayed to assist the Secretary with the minutes. Also present were Jay Holloway of Hunton & Williams and, via teleconference, Chet Thompson of Crowell & Moring.

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REPORT OF THE OFFICERS

Report of the President and CEO

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



[REDACTED]

[REDACTED]

Approval of Past Executive Session Minutes

A motion was made by Randy Sexton, seconded by Jimmy Longmire, and passed to approve the following Executive Session Minutes.

- April 10, 2007,
- May 1, 2007, and
- June 11, 2007.

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At 11:40, Chairman Stratton asked for a motion, made by Randy Sexton, seconded by Danny Divine, and passed, to come out of Executive Session and continue with the regular board meeting.

(The remainder of the 'Report of the Officers' continues during the regular board meeting.)

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Approved:

\_\_\_\_\_  
R. Wayne Stratton  
Chairman of the Board

\_\_\_\_\_  
A. L. Rosenberger  
Secretary

Date:

**EAST KENTUCKY POWER COOPERATIVE, INC.**

**EXECUTIVE SESSION PORTION OF THE  
MINUTES OF BOARD MEETING  
AUGUST 14, 2007**

Following is the Executive Session portion of the regular meeting of the Board of Directors of East Kentucky Power Cooperative, Inc. ("EKPC") held at the Headquarters Building, 4775 Lexington Road, Winchester, Kentucky, on Tuesday, August 14, 2007, which began at 10:35 a.m. EDT, pursuant to proper notice.

**EXECUTIVE SESSION**

At 11:55 a.m., Chairman Stratton requested the Board go into Executive Session, with Wade May making the motion that was seconded and passed. Those remaining included the Directors, Alternate Directors, Bill Prater, Bob Marshall, and David Smart. Della Damron stayed to assist the Secretary with the minutes.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

REDACTED

[REDACTED]

[REDACTED]

[REDACTED]

No other business was brought before the Board.

At 12:03 p.m., Chairman Stratton adjourned the Executive Session and the regular Board meeting.

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Approved:

\_\_\_\_\_  
R. Wayne Stratton  
Chairman of the Board

\_\_\_\_\_  
A. L. Rosenberger  
Secretary

Date:



**EAST KENTUCKY POWER COOPERATIVE, INC.**

**PSC CASE NO. 2007-00168**

**INFORMATION REQUEST RESPONSE**

**ATTORNEY GENERAL'S DATA REQUESTS DATED**

**SEPTEMBER 17, 2007**

**REQUEST NO. 3**

**RESPONDING PERSON: Della Damron**

**Request 3:** Provide copies of all documents, materials or information presented at the aforementioned meetings.

**Response 3:** The attached video presentation represents all of the information presented at the subject Board meetings, pertaining to the Wolf Creek Dam repairs, the impact of lowering the level of Lake Cumberland, and modifications to Cooper Power Station, are attached. Also attached is the Executive Summary pertaining to the application to the Governor's Office for Local Development for possible reimbursement of expenditures for the Cooper Station modifications. (Note that the scope of the response has been narrowed to include Board materials relevant to the subject matter of the case, per agreement with the Attorney General.)

# Board Agenda Item

JUNE

**TO:** Operations, Services and Support Committee and Board of Directors

**FROM:** Bob Marshall *Bob Marshall*

**DATE:** June 6, 2007

**SUBJECT:** Resolution for Governor's Office for Local Development  
Executive Summary (ADDED TO AGENDA)

**KEY MEASURE(S)** This supports reliable and competitive energy cost.  
This supports reliable transmission.

## Background

Modifications to the John Sherman Cooper Station are required to protect the generating units and transmission system should the U.S. Army Corps of Engineers (USACE) decide to lower Lake Cumberland below its present 680- foot level while it makes emergency repairs at the Wolf Creek Dam. That is 43 feet below normal levels. EKPC's action plan, approved by the Kentucky Public Service Commission, is in response to a letter all water users of Lake Cumberland received earlier this year from the USACE warning users to be prepared to operate at the 650- foot level by December 31, 2007. The Cooper Station experiences serious operating difficulties between 674 feet and 680 feet and would be forced to shut down at 673 feet and below. The modifications protect Cooper from the threat of further lake lowering. Total cost of these measures will be \$24 million.

## Justification and Strategic Analysis

EKPC has been working with state and federal officials to secure financial assistance to offset a portion of these unanticipated expenses. The Governor's Office for Local Development (GOLD) has agreed to consider such assistance. However, according to Governor Fletcher's Executive Order 2007-298, only local agencies (cities, counties, special districts) can apply for financial assistance. GOLD recommended that East Kentucky Power Cooperative's board of directors adopt a resolution allowing its President and CEO to enter into a three-party agreement with GOLD and an appropriate Kentucky local government entity so an application can be submitted to GOLD for consideration.

## Recommendation

Management recommends adoption of the resolution as suggested by GOLD.

rmm:blm







**EAST KENTUCKY POWER COOPERATIVE, INC.**

**PSC CASE NO. 2007-00168**

**INFORMATION REQUEST RESPONSE**

**ATTORNEY GENERAL'S DATA REQUESTS DATED**

**SEPTEMBER 17, 2007**


**REQUEST NO. 5**

**RESPONDING PERSON: Della Damron**

**Request 5:** Provide copies of all documents, materials or information presented at the aforementioned special meetings.

**Response 5:** Copies of all documents, materials, and information presented at the subject meetings of the EKPC Standing Board Committees, referenced in Response No. 4, pertaining to the Wolf Creek Dam repairs, the impact of lowering the level of Lake Cumberland, and modifications to Cooper Power Station are attached.

A related Executive Summary is included in the material provided in Response No. 3.



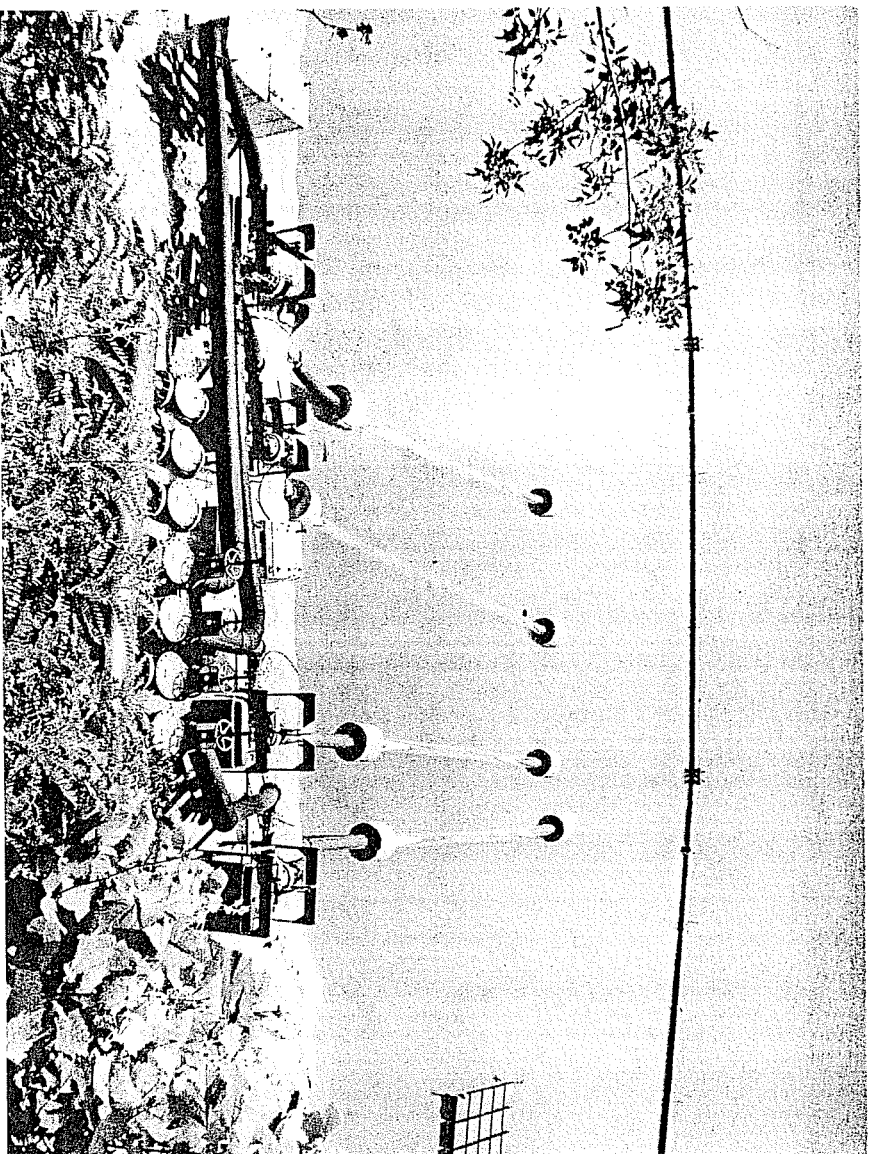
# Cooper Station Low Water Mitigation Project Update

Production Division

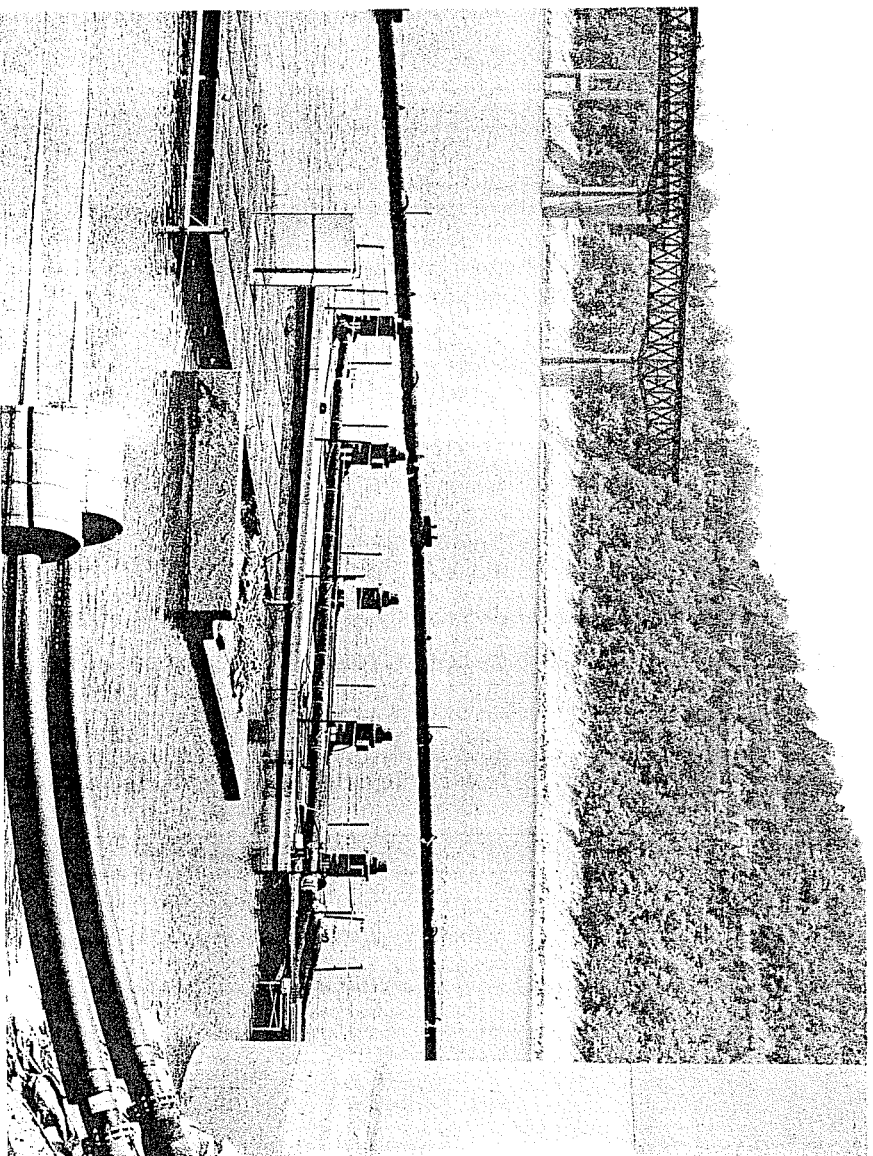
Jerry Purvis

Maintenance Superintendent

# Godwin Diesel Pumps

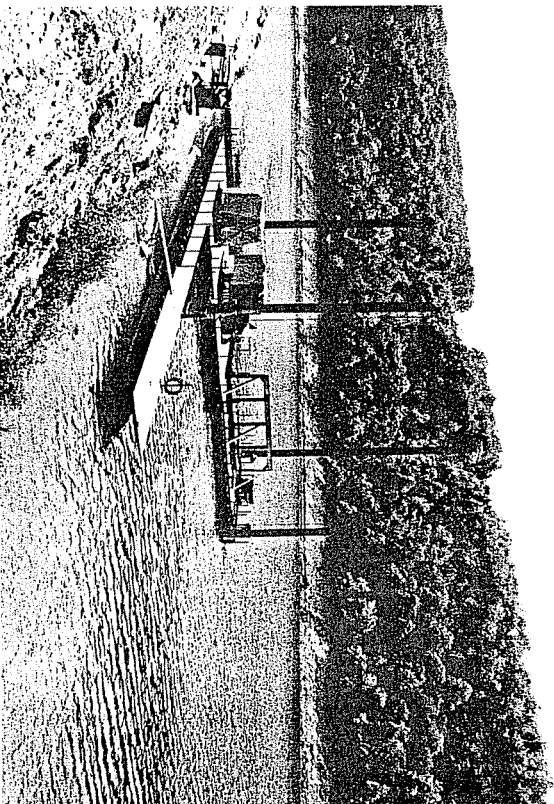


# Supplemental Pumps

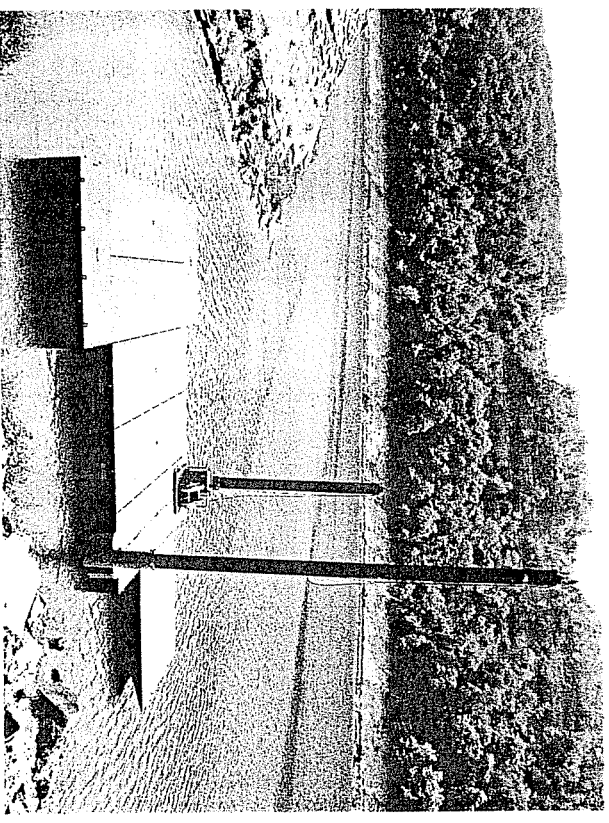


# Pump and Crane Barges

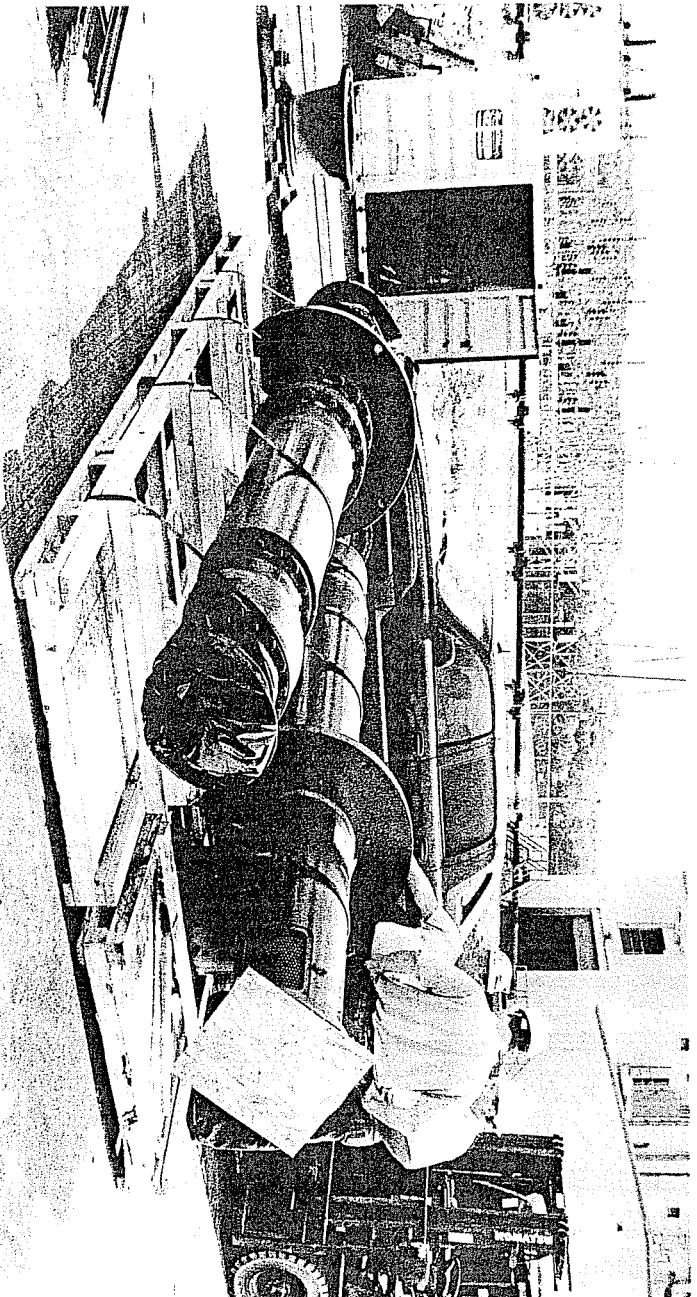
Pump Barge for 4-10,000 gpm



Maintenance Barge for Crane



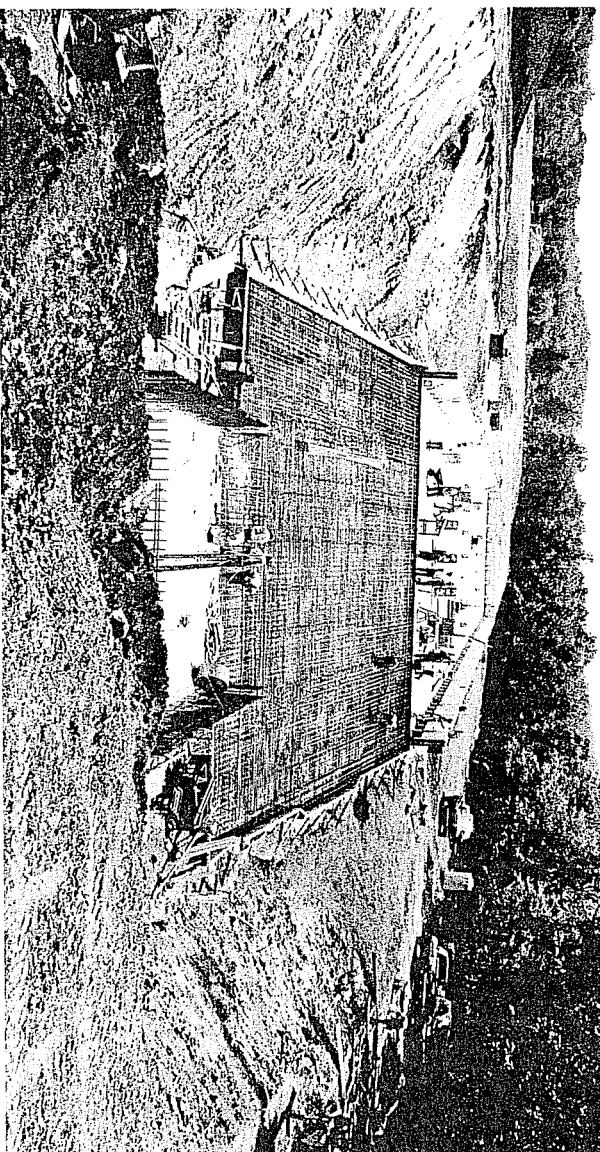
# Pumps 10,000 gpm each



Four Pumps to be installed.  
Two Shown in photo.

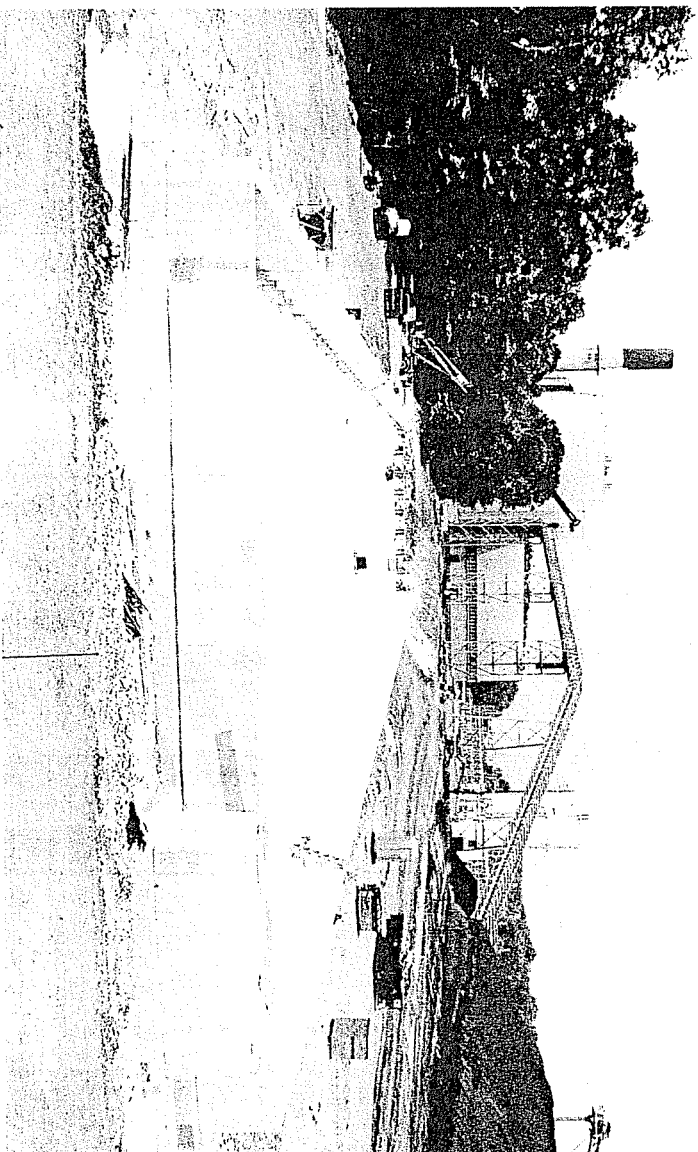
# Cooling Tower Basin – Pump View

48 ft wide  
50 plus ft tall  
440 ft long.



# Cooling Tower Basin

East End Complete







EAST KENTUCKY POWER COOPERATIVE, INC.  
PSC CASE NO. 2007-00168  
INFORMATION REQUEST RESPONSE

ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 6

RESPONSIBLE PERSON: Jerry Purvis

COMPANY: East Kentucky Power Cooperative, Inc.

Request 6. Provide copies of any materials or information from the Kentucky Division of Water or the Army Corps since the approval of the certificate in this matter.

Response 6. See Attached and the response to AG Request 13.



**US Army Corps  
Of Engineers®**  
Nashville District  
P.O. Box 1070  
Nashville, TN 37202-1070

# News Release

07-37

Release No.

**IMMEDIATE**

For Release: July 27, 2007

**Bill Peoples** [bill.peoples@us.army.mil](mailto:bill.peoples@us.army.mil)

Contact:

(615) 736-7161

Phone:

## **U.S. Army Corps of Engineers to continue elevation 680 at Lake Cumberland**

**NASHVILLE, TENN. (July 27, 2007)** - The U.S. Army Corps of Engineers, Nashville District, has announced plans to continue to hold the level of Lake Cumberland at elevation 680 unless project conditions worsen.

At elevation 680, Wolf Creek Dam is stable and improving. The 680 level was implemented in January and has reduced hydrostatic pressure on the dam and decreased seepage, therefore lowering the risks to people and property. The project has responded to this lake level with improved project conditions that include: improved critical indicators, slightly reduced piezometers readings, and fewer wet spots downstream. Expedited grouting is continuing in the critical areas and should be complete by September.

The Corps moved up this decision from the late Fall 07 timeframe, in order to provide stakeholders more time to make decisions about next year's recreation season and other business interests. The Corps was able to make this decision early based on the improving conditions at the dam, but Wolf Creek Dam continues to be a high risk dam with interim risk reduction measures in place and an expedited grouting program ongoing.

-more-

# **To Better Serve The Public**

The reduction to 680 has impacted the project purposes of Hydropower, Water Supply, Water Quality, Recreation and Navigation, but public health and safety remain the highest priority of the Corps of Engineers. Operating Lake Cumberland at 680 feet during the construction of the Major Rehabilitation will continue to reduce risk and allow other project purposes to continue, albeit with severe impacts.

The Corps is working to establish criteria and a decision process for the future pool elevations of Lake Cumberland. This is expected to be complete by mid-September and stakeholders and the public will be informed.

In February, the Corps requested that the 11 municipal and private water supply users extend their water supply intakes to elevation 650 as a contingency planning measure. The Corps believes this recommendation is still an appropriate measure for water supply users to take. If a distress indicator was observed at Wolf Creek Dam, then the Corps would have the ability to lower the lake level without affecting the water supply for residents and for public safety use around Lake Cumberland.

The Corps has an aggressive Dam Safety Program that includes constant monitoring of all of the dams in the Cumberland River System. The Corps, in cooperation with state and local agencies, maintains emergency notification plans to be used in the event of a failure. The Corps will keep the public informed of the conditions of at Wolf Creek Dam and the progress of rehabilitation work throughout the project with news releases and postings on the website:

<http://www.lrn.usace.army.mil/WolfCreek/index.htm>

FW: KY Power Coop - Cooper Station Email Ranger Norris 060107.txt  
From: Norris, Brant A LRN [Brant.A.Norris@lrn02.usace.army.mil]  
Sent: Friday, June 01, 2007 4:06 PM  
To: Jerry Purvis  
Subject: FW: KY Power Coop - Cooper Station

Jerry,  
From our phone conversation today it is my understanding that the elevation of the proposed leveled area is 690 and the dimensions are 16' x 50'.  
Also, the dimensions of the Flexifloat barge is 15' x 45'.

Please take a look at the enclosed Word Document from Hydrology and Hydraulics. Please respond to the information regarding the necessity to place fill material on the leveled 16' x 50' area for the purpose of placing 4 diesel pumps.  
I will forward this information to Regulatory and H&H.

Thanks, Brant

-----Original Message-----  
From: Patterson, Andreas F LRN  
Sent: Friday, June 01, 2007 2:24 PM  
To: Norris, Brant A LRN  
Cc: Simpson, Maurice S LRN; Lachicotte, Kathryn A LRN  
Subject: FW: KY Power Coop - Cooper Station

Brant,

Can you address Phyllis' concerns?

-----Original Message-----  
From: Lachicotte, Kathryn A LRN  
Sent: Friday, June 01, 2007 12:13 PM  
To: Patterson, Andreas F LRN; Hall, Chip W LRN  
Cc: Pendergrast, Joe R LRN; James, William L LRN  
Subject: KY Power Coop - Cooper Station

FYI  
Phyllis is not able to make a determination or recommendation on Cooper's Station without more specific plans and unless it is "shown that due effort has been taken to minimize any fill." See attached memo.  
-Kathy

From: Kohl, Phyllis LRN  
Sent: Friday, June 01, 2007 10:58 AM

<<KY Power Coop 1.doc>>

MEMORANDUM FOR CELRN-RE-O (Pendergrast)

SUBJECT: Immediate Right of Entry for the Installation of Four Diesel Driven Pumps and Flexifloat Barge with Five Supplemental Pumps, East Kentucky Power Cooperative, Cooper Power Plant, Tract No. Z-2643, Lake Cumberland

1. No plans have been submitted regarding the proposed leveling of this site. Since this is part of the remediation required due to the emergency lowering of Lake Cumberland, our office is willing to consider a waiver of any fill required but it must be shown that due effort has been taken to minimize any such fill. Therefore, I am unable to make a recommendation regarding the approval or disapproval of this application.
2. Please feel free to contact me at (615)-736-5948 if you have any questions regarding this matter.

Phyllis Kohl  
Flood Plain Management Services

East Kentucky Power Cooperative, Inc.  
J.S. Cooper Power Station  
Right of Entry Request/ Response to No.1.

SUBJECT: Immediate Right of Entry for the Installation of Four Diesel Driven Pumps and Flexifloat Barge with Five Supplemental Pumps, East Kentucky Power Cooperative, Cooper Power Plant, Tract No. Z-2643, Lake Cumberland

1. No plans have been submitted regarding the proposed leveling of this site. Since this is part of the remediation required due to the emergency lowering of Lake Cumberland, our office is willing to consider a waiver of any fill required but it must be shown that due effort has been taken to minimize any such fill. Therefore, I am unable to make a recommendation regarding the approval or disapproval of this application.

EKPC proposes to level an area measuring 16' x 50' utilizing 60 cu.yds. of crushed stone to provide a site for four diesel driven pumps. No additional fill will be required. The Kentucky Division of Water (KYDOW) and KY Dept. of Air Quality (DAQ) require us to cover the earth with stone to minimize fugitive dust emissions and possible soil erosion. The site in question is depicted in the drawing adjacent to Unit 2 for the diesel driven pumps.

2. Please feel free to contact me at (615)-736-5948 if you have any questions regarding this matter.

Phyllis Kohl  
Flood Plain Management Services

RE KY Power Coop - Cooper Station Email to Ranger Norris.txt

From: Jerry Purvis  
Sent: Friday, June 01, 2007 4:17 PM  
To: 'Norris, Brant A LRN'  
Subject: RE: KY Power Coop - Cooper Station

Let me know if this works for you. Appreciate it.

Jerry Purvis \* East Kentucky Power Cooperative | J.S.Cooper Power Station  
Plant Engineer

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

\* 606.561.4138 7 606.561.5697 \* jerry.purvis@ ekpc.coop

-----Original Message-----

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Sent: Friday, June 01, 2007 4:06 PM  
To: Jerry Purvis  
Subject: FW: KY Power Coop - Cooper Station

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Sent: Friday, June 01, 2007 12:13 PM  
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RE KY Power Coop - Cooper Station Email to Ranger Norris.txt  
Subject: KY Power Coop - Cooper Station

FYI

Phyllis is not able to make a determination or recommendation on Cooper's Station without more specific plans and unless it is "shown that due effort has been taken to minimize any fill." See attached memo.

-Kathy

From: Kohl, Phyllis LRN  
Sent: Friday, June 01, 2007 10:58 AM

<<KY Power Coop 1.doc>>

**From:** Norris, Brant A LRN [Brant.A.Norris@lrm02.usace.army.mil]

**Sent:** Friday, May 18, 2007 5:29 PM

**To:** Jerry Purvis

**Cc:** Mark Horn; Hale, Thomas E LRN

**Subject:** Right of Entry request (four diesel pumps and Flexifloat barge w/ 5 supplemental pumps)

Jerry,

As a follow up to our conversation earlier today, the Resource Manager's office has performed all necessary work on behalf of Cooper Power Station regarding your Right of Entry request. Due to the critical need for your request, it is the decision of this office that you should proceed as scheduled on your proposed work while the final paperwork is being issued by Real Estate Division.

Please keep in mind that all work necessary to install the diesel pumps on the shoreline should only occur on the exposed shoreline as we discussed on-site Monday. Please assure that all coordination regarding storage of diesel fuel and transfer of that fuel to your pumps is coordinated with the appropriate state environmental offices.

If you have any questions, please call me at 606/679-6337.

Thanks, Brant



**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**PSC CASE NO. 2007-00168**  
**INFORMATION REQUEST RESPONSE**

**ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 7**

**RESPONSIBLE PERSON: Jerry Purvis / Barry Mayfield**  
**COMPANY: East Kentucky Power Cooperative, Inc.**

**Request 7.** Provide copies of any materials or information, which EKPC has in its possession in regard to the coordination or advisement with any Commonwealth agency or federal agency on the lowering of the water at Lake Cumberland.

**Response 7.** Attached is information regarding EKPC contacts relating to the Lake Cumberland issues with the Public Service Commission, the Governor's Office of Inter-Agency Services, Lake Cumberland Region and the Environmental and Public Protection Cabinet, the Governor's Office for Local Development, and the Southeastern Power Administration. Also attached is information relating to the issuance of permits for the Cooper Station modifications from the Kentucky Department of Fish and Wildlife, the Army Corps of Engineers, Kentucky Division for Air Quality and the U.S. Department of Agriculture.

**PUBLIC SERVICE COMMISSION**

**John Twitchell**

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**From:** John Twitchell  
**Sent:** Friday, May 18, 2007 5:28 PM  
**To:** 'Amato, Robert A (PSC)'  
**Subject:** Cooper Low Water Mitigation Progress Meetings

I have asked the Cooper plant staff to develop a routine reporting mechanism, and to include you and Jim Welch on the electronic distribution list. I've also asked them to keep you and Jim aware of any key construction related events, so that if there is something of interest, you would have the opportunity to attend and observe. Cooper is in the middle of a routine maintenance outage, so I don't expect a recommendation from them on the nature and frequency of their reports until the end of next week. Once they have developed their process, I'll pass it along to you. If there is anything not in their reports that is of interest to you, please let me know and we'll add it in. I will be out of the office during the week of May 21, but will check in with them via email and phone.

John R. Twitchell, PE  
Senior Vice President, G & T Operations  
East Kentucky Power Cooperative  
P. O. Box 707  
Winchester, KY 40392-0707  
859-745-9706 office  
859-595-3133 cell

-----Original Message-----

**From:** Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
**Sent:** Friday, May 18, 2007 3:09 PM  
**To:** John Twitchell  
**Subject:** Cooper Progress Meetings

John, When can I expect to see a schedule for the Cooper Progress meetings?

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

## John Twitchell

---

**From:** John Twitchell  
**Sent:** Tuesday, July 17, 2007 1:26 PM  
**To:** Robert A Amato (E-mail)  
**Subject:** FW: Cooper Agenda Update

FYI, here is the list of expected attendees and the agenda for Wednesday's meeting at Cooper Power Station.

### STATUS MEMORANDUM

July 13, 2007

Lake Cumberland Visit by Assistant Secretary of the Army John Paul Woodley

Wednesday, July 18, 2007

#### Participants:

##### U.S Army

ASA Woodley, Major Dwayne Smith

#### USACE:

BG Berwick, Great Lake/Ohio River Region

Lt .Col. Roemhildt, Mike Wilson, Mike Enschede, Carol Warren, David Hendricks

Nashville District Office

#### Southeastern Power Administration:

Ion C. Worthington and Herb Nadler and Leon Jourolmon

#### East Kentucky Power Cooperative:

Bob Marshall, President , John Twitchell, Charles Leveridge, Barry Mayfield, Eric Gregory, Steve Conover, Representative from South Ky RECC, Jerry Purvis, Angela Taulbee

#### Congressional Offices:

Larry Cox, Donna McClure (Cooper Plant), LeAnn Crosby, Senator McConnell's Office; Debbie McKinney and Holly Scoville, Senator Bunning's Office; Bob Mitchell, Congressman Rogers' Office; Sandy Simpson, Congressional Whitfield's Office;

#### Governor Fletcher's Office:

Hilda Gay Legg - Executive Director Interagency Services - Lake Cumberland Region;

Mark York, Executive Director OOS OCPO

Bob Amato, Deputy Executive Director, Public Service Commission

John R. Twitchell, PE  
Senior Vice President, G & T Operations  
East Kentucky Power Cooperative  
P. O. Box 707  
Winchester, KY 40392-0707  
859-745-9706 office  
859-595-3133 cell

To All:

Hilda asked that we include time for brief comments from the Governor's Office. It may be tomorrow before we know who

that is. Bob, we'll get you the name and title in the morning. Please disregard the previous agenda.

Thanks to each of your for helping put this together.

Barry

**A G E N D A**  
**Visit of Assistant Secretary of the Army**  
**John Paul Woodley, Jr.**  
**John Sherman Cooper Station**  
**July 18, 2007**

10:30 a.m., Welcome and introductions	Bob Marshall
10:35 a.m., Comments by Governor's Representative	
10: 40 a.m., Update of the situation (powerpoint) opportunity for questions	John Twitchell
10:55 a.m., Comments	Assistant Secretary Woodley
11:05 a.m., Tour of in-take structures, barges and pumps	Charles Leveridge
11:45 a.m., lunch	
Noon, Assistant Secretary Woodley departure	

Barry Mayfield  
Director, External Affairs  
East Kentucky Power Cooperative  
4775 Lexington Road  
Winchester, Ky. 40391  
Office: (859) 745-9446  
Fax: (859) 737-6078  
Cell: (859) 229-4072  
Frankfort: (502) 223-7030  
Frankfort fax: (502) 223-7031  
[www.ekpc.coop](http://www.ekpc.coop)



**Judy Riddell**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Monday, August 27, 2007 11:20 AM  
**To:** Charles Leveridge  
**Cc:** Jerry Purvis  
**Subject:** Re: USACE Letter

Any word from Corps?

----- Original Message -----

From: Charles Leveridge <charles.leveridge@ekpc.coop>  
To: Amato, Robert A (PSC)  
Cc: Jerry Purvis <jerry.purvis@ekpc.coop>  
Sent: Fri Aug 24 09:29:32 2007  
Subject: RE: USACE Letter

The electric pump installation is progressing well and it is our intention to start two pumps up late next week and the remaining two pumps the first week of September.

Charles Leveridge

Plant Manager

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

-----Original Message-----

From: Amato, Robert A (PSC) [<mailto:raamato@ky.gov>]  
Sent: Friday, August 24, 2007 9:15 AM  
To: Charles Leveridge  
Subject: RE: USACE Letter

thanks. Keep me posted.

How are the electric, barge mounted pumps coming along? In service?

✓  
,

9/20/2007

---

om: Charles Leveridge [<mailto:charles.leveridge@ekpc.coop>]  
Sent: Friday, August 24, 2007 9:14 AM  
To: Amato, Robert A (PSC)  
Subject: RE: USACE Letter

I have not received anything. I hope we will hear something today.

Charles Leveridge

Plant Manager

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

--Original Message-----  
om: Amato, Robert A (PSC) [<mailto:raamato@ky.gov>]  
Sent: Friday, August 24, 2007 8:29 AM  
To: John Twitchell; Charles Leveridge; Jerry Purvis  
Subject: USACE Letter

Have you received the letter from the Corps that was discussed at our meeting Friday.

Bob

Robert A. Amato, PE  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
RobertA.Amato@ky.gov <<mailto:RobertA.Amato@ky.gov>>

**Judy Riddell**

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**Subject:** USACE Letter

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[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

**Judy Riddell**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Wednesday, August 15, 2007 3:10 PM  
**To:** Jerry Purvis; Charles Leveridge  
**Cc:** John Twitchell  
**Subject:** RE: Directions to Old Hickory Power Plant

Thanks Jerry. I'll see you on Friday.

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

---

**From:** Jerry Purvis [mailto:jerry.purvis@ekpc.coop]  
**Sent:** Wednesday, August 15, 2007 2:57 PM  
**To:** Charles Leveridge; Amato, Robert A (PSC)  
**Cc:** John Twitchell  
**Subject:** FW: Directions to Old Hickory Power Plant

nts:

Attached are the directions and security requirements for the trip to COE, Nashville, TN. We shall meet the Lt. Colonel Lindstrom and Mike Wilson at Old Hickory Dam. All the info is in the word document. See you Friday.

If you need anything call me at 606-561-4138 or 606-271-2590.

Regards,

Jerry Purvis

Jerry Purvis | East Kentucky Power Cooperative | J.S.Cooper Power Station

**Maintenance Superintendent**

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

☎ 606.561.4138 📠 606.561.5697 ✉ [jerry.purvis@ekpc.coop](mailto:jerry.purvis@ekpc.coop)



-----Original Message-----

**From:** Wilson, Mike LRN [mailto:Mike.W.Wilson@usace.army.mil]

**Sent:** Wednesday, August 15, 2007 2:53 PM

**To:** Jerry Purvis

**Subject:** Fw: Directions to Old Hickory Power Plant

Jerry,

Attached you will find directions to Old Hickory Power Plant. We are on for 1000 CDT Friday. I am out of office today and have not yet determined what info is needed for security. Can you go ahead and send the names and DL number of those who will enter the plant. I may need SS numbers also. I will let you know if I do.

Mike Wilson

-----  
Sent from my BlackBerry Wireless Handheld

----- Original Message -----

From: Rivera, Delia G LRN

To: Wilson, Mike LRN

Cc: Mistakovich, David LRN

Sent: Wed Aug 15 13:35:41 2007

Subject: Directions to Old Hickory Power Plant

Mike,

Attached are the directions to the plant.

Dee

## Judy Riddell

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Wednesday, July 18, 2007 7:48 AM  
**To:** Charles Leveridge  
**Subject:** Re: Construction Weekly Report from Cooper Station

Thanks, I'll see you this morning.

----- Original Message -----

From: Charles Leveridge <charles.leveridge@ekpc.coop>  
To: Amato, Robert A (PSC)  
Cc: Barry Mayfield <barry.mayfield@ekpc.coop>; Susan Gill <susan.gill@ekpc.coop>  
Sent: Wed Jul 18 07:11:43 2007  
Subject: FW: Construction Weekly Report from Cooper Station

Latest construction report.

Charles Leveridge

Plant Manager

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

-----Original Message-----

From: Jerry Purvis  
Sent: Tuesday, July 17, 2007 7:34 PM  
To: Charles Leveridge; Craig Johnson; Chuck Woodall  
Cc: John Twitchell  
Subject: Construction Weekly Report from Cooper Station

Here is the latest construction report for the project.

Jerry P

Jerry Purvis 1/2 East Kentucky Power Cooperative | J.S.Cooper Power Station

Engineering & Maintenance Superintendent

9/20/2007

7130 Highway 1247 | Somerset, KY 42501

∩. Box 38 | Burnside, KY 42519

( 606.561.4138 7 606.561.5697 \* jerry.purvis@ ekpc.coop <<mailto:jerry.purvis@%20ekpc.coop>>

**Judy Riddell**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Tuesday, July 10, 2007 8:28 AM  
**To:** Charles Leveridge  
**Subject:** Cooper Operation

Charlie, Is Cooper performing at full capacity? I've noticed near peak usage this week.

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)



**Judy Riddell**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Tuesday, June 12, 2007 4:33 PM  
**To:** Charles Leveridge  
**Cc:** Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** RE: slight change

Thanks for your update and good luck.

Bob

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Tuesday, June 12, 2007 4:31 PM  
**To:** Amato, Robert A (PSC)  
**Cc:** Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** RE: slight change

Mr. Amato,

Your email is very timely. We completed the supplemental piping for Unit 2 a few days ago and have just finished getting the diesel pumps hooked up and started today. Unit 2 is currently generating over 200 MWatts. Unit 1 has been off due to a tube leak and has fires established and should be coming on line later today. The station will be near full load capability as long as condenser fouling and lake temperatures are good.

No other progress report has been put out yet but one will be forthcoming shortly. Baker is on site and excavation work has commenced.

I'll keep you posted. Thank you for your concern. These are challenging times.

Charles Leveridge

-----Original Message-----

**From:** Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
**Sent:** Tuesday, June 12, 2007 3:52 PM  
**To:** Charles Leveridge  
**Subject:** RE: slight change

Charley, have you completed the supplemental cooling water pipeline? Have you gotten the diesel pumps in yet? Have you sent out any more progress reports for the construction project?

Thanks,

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

P.S. I hope everything went alright for Jerry.

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Monday, June 04, 2007 3:31 PM  
**To:** Amato, Robert A (PSC)  
**Subject:** slight change

Mr. Amato,

The diesel pumps can deliver 3750 gpm as opposed to 2750 gpm.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

## Judy Riddell

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-----Original Message-----

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**To:** Charles Leveridge  
**Subject:** RE: slight change

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**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

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**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Monday, June 04, 2007 3:31 PM  
**To:** Amato, Robert A (PSC)  
**Subject:** slight change

Mr. Amato,

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Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

**Judy Riddell**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Monday, June 04, 2007 4:21 PM  
**To:** Charles Leveridge  
**Subject:** Re: slight change

Great! Thanks for the update.

Bob

----- Original Message -----  
From: Charles Leveridge <charles.leveridge@ekpc.coop>  
To: Amato, Robert A (PSC)  
Sent: Mon Jun 04 15:30:51 2007  
Subject: slight change

Mr. Amato,

The diesel pumps can deliver 3750 gpm as opposed to 2750 gpm.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

**Judy Riddell**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Wednesday, May 30, 2007 5:13 PM  
**To:** Charles Leveridge  
**Subject:** Re: construction meeting

Thanks. Friday around 1 PM would work for me.

Bob

----- Original Message -----

From: Charles Leveridge <charles.leveridge@ekpc.coop>  
To: Amato, Robert A (PSC)  
Sent: Wed May 30 13:40:59 2007  
Subject: RE: construction meeting

It would be my pleasure to show you around. What day and time would be preferable to you?

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent

oper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

-----Original Message-----

From: Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
Sent: Wednesday, May 30, 2007 11:49 AM  
To: Charles Leveridge  
Cc: Welch, Jim A (PSC)  
Subject: RE: construction meeting

Thanks Charles.

I will plan to attend on June 4. I would also like to visit the plant this Thursday afternoon or Friday to familiarize myself with the site. Please let me know if you or your staff could show me around for an hour or so on one of those days.

.anks,

Bob

9/20/2007

Robert A. Amato, PE

Deputy Executive Director

Kentucky Public Service Commission

502-564-3940

RobertA.Amato@ky.gov

---

From: Charles Leveridge [<mailto:charles.leveridge@ekpc.coop>]

Sent: Tuesday, May 29, 2007 3:58 PM

To: Amato, Robert A (PSC); Welch, Jim A (PSC); Norris, Brant A LRN

Subject: construction meeting

Gentlemen:

Cooper Station will be having a contractor coordination meeting June 4 at 9 AM. Should your schedule permit please feel free to attend.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent

Cooper Power Station

P.O. Box 38

Burnside, KY 42519

606-561-4138

**Judy Riddell**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Tuesday, May 29, 2007 8:34 AM  
**To:** Charles Leveridge  
**Subject:** RE: Cooper Station update

Charles, I left you a voice mail asking if the cooling tower construction contracts were successfully negotiated. Please respond to this email to advise.

Thanks,  
Bob

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Tuesday, May 22, 2007 3:06 PM  
**To:** Amato, Robert A (PSC)  
**Cc:** Welch, Jim A (PSC); Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** Cooper Station update

Good afternoon Mr. Amato,

Jerry informed me you called this morning. I apologize for not having gotten this information to you sooner. We will do better.

I have attached an example of a letter that was sent to Baker, Marley and Reynolds prepared by Mr. Larry Shell of Stanley Consultants. Two other attachments include our construction plan and weekly update.

If you have any questions please feel free to contact Jerry Purvis or me.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138



## Judy Riddell

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Wednesday, May 23, 2007 8:02 AM  
**To:** Charles Leveridge  
**Cc:** Welch, Jim A (PSC); Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** RE: Cooper Station update

Thank you. The updates and other information will be very helpful to us.

Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Tuesday, May 22, 2007 3:06 PM  
**To:** Amato, Robert A (PSC)  
**Cc:** Welch, Jim A (PSC); Craig Johnson; John Twitchell; Jerry Purvis  
**Subject:** Cooper Station update

Good afternoon Mr. Amato,

Jerry informed me you called this morning. I apologize for not having gotten this information to you sooner. We will do better.

I have attached an example of a letter that was sent to Baker, Marley and Reynolds prepared by Mr. Larry Shell of Stanley Consultants. Two other attachments include our construction plan and weekly update.

If you any questions please feel free to contact Jerry Purvis or me.

Charles Leveridge

Interim Plant Manager/Maintenance Superintendent  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

**Judy Riddell**

---

**From:** Amato, Robert A (PSC) [raamato@ky.gov]  
**Sent:** Monday, September 10, 2007 11:18 AM  
**To:** Charles Leveridge  
**Subject:** RE: 10,000 gpm pumps

thanks

---

**From:** Charles Leveridge [mailto:charles.leveridge@ekpc.coop]  
**Sent:** Monday, September 10, 2007 10:37 AM  
**To:** Amato, Robert A (PSC)  
**Subject:** RE: 10,000 gpm pumps

We are testing one phase of the supply cable feeding the unit sub that will source the first two pumps. The megger reading was not as good as the other two phases. We hope to test run later today.

Charles Leveridge

Plant Manager  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

6-561-4138

-----Original Message-----

**From:** Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
**Sent:** Monday, September 10, 2007 8:15 AM  
**To:** Jerry Purvis  
**Cc:** Charles Leveridge  
**Subject:** 10,000 gpm pumps

Jerry, let me know when the electric 10,000 gpm pumps go on-line.

Thanks,  
Bob

**Robert A. Amato, PE**  
Deputy Executive Director  
Kentucky Public Service Commission  
502-564-3940  
[RobertA.Amato@ky.gov](mailto:RobertA.Amato@ky.gov)

## John Twitchell

---

**From:** John Twitchell  
**Sent:** Tuesday, September 11, 2007 4:46 PM  
**To:** 'Amato, Robert A (PSC)'  
**Subject:** RE: Tomorrow

Here is a presentation I'll have available, except my version will have a couple of drawings of the plant. I tried to keep the file size down. See you tomorrow.

John R. Twitchell, PE  
Senior Vice President, G & T Operations  
East Kentucky Power Cooperative  
P. O. Box 707  
Winchester, KY 40392-0707  
859-745-9706 office  
859-595-3133 cell

-----Original Message-----

**From:** Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
**Sent:** Tuesday, September 11, 2007 4:32 PM  
**To:** John Twitchell  
**Cc:** Charles Leveridge; Jerry Purvis  
**Subject:** Tomorrow

John, I will not be able to make it to Cooper tomorrow morning. I will see you at Lure Lodge at the meeting. I would like to talk with you prior to the committee meeting. I should arrive at the Lure Lodge around 11:15. Call or email me when you get there so that we can talk. I will share my presentation with you and catch up on the project status.

Thanks,  
Bob

# LOW WATER MITIGATION PLAN COOPER POWER STATION



JOHN TWITCHELL, PE  
September 12, 2007

1



## Low Water Mitigation Plan

- Wolf Creek Dam Requires Repair
- COE Has Lowered Lake Cumberland to 680'
- COE Advised Lake Users to be Prepared for 650' at End of December, 2007
- Adverse Impacts to EKPC and Transmission Grid

2



## Low Water Mitigation Plan

- Recommendation (Approved by PSC)
  - ❖ Cooling Tower on Unit No. 2, Barge Mounted
  - ❖ Pumps on Unit No. 1
  - ❖ Supplemental Supply System for Summer of 2007
  
- Implementation
  - ❖ Install Supplemental System
  - ❖ Integrate into Unit No. 1 Pumps
  - ❖ Phase in Unit No. 2 Cooling Tower to Minimize Capital Expense



## Costs To Members

---

- ❖ Replacement of hydro power from Wolf Creek Dam
  - ❖ \$13.5 million annually
- ❖ Replacement of coal-fired power due to de-rating of Cooper units
  - ❖ \$1.8 million in June
  - ❖ \$570,000 in July
  - ❖ \$1.5 million in August
- ❖ Low water mitigation plan
  - ❖ Pumps, barges, associated equipment
  - ❖ \$14.7 million

7



## Future Costs To Members

---

- Low water mitigation plan, future (depends on Corps decision)
  - ❖ Cooling tower, additional equipment
  - ❖ \$9.3 million
- EKPC's share of \$309 million in dam repair costs
- Other unknown costs

8

**GOVERNOR'S OFFICE OF INTER-AGENCY  
SERVICES**

**LAKE CUMBERLAND REGION  
ENVIRONMENTAL AFFAIRS  
PUBLIC PROTECTION CABINET**

**From:** Eric Gregory  
**Sent:** Wednesday, June 20, 2007 10:59 PM  
**To:** Barry Mayfield  
**Subject:** FW: GOVERNOR FLETCHER NAMES ACTING COMMISSIONER OF THE GOVERNOR'S OFFICE FOR LOCAL DEVELOPMENT

-----Original Message-----

**From:** hildalegg@yahoo.com [mailto:hildalegg@yahoo.com]  
**Sent:** Wed 6/20/2007 7:56 PM  
**To:** Eric Gregory  
**Cc:**  
**Subject:** Re: GOVERNOR FLETCHER NAMES ACTING COMMISSIONER OF THE GOVERNOR'S OFFICE FOR LOCAL DEVELOPMENT

Met with her today  
Cooper on her radar  
Sent via BlackBerry from Cingular Wireless

-----Original Message-----

**From:** "Eric Gregory" <eric.gregory@ekpc.coop>  
**Date:** Tue, 5 Jun 2007 18:16:32  
**To:** "Barry Mayfield" <barry.mayfield@ekpc.coop>, "David Smart" <david.smart@ekpc.coop>, <hildalegg@yahoo.com>  
**Subject:** FW: GOVERNOR FLETCHER NAMES ACTING COMMISSIONER OF THE GOVERNOR'S OFFICE FOR LOCAL DEVELOPMENT

FYI - Here is the new acting commissioner at GOLD:

-----Original Message-----

**From:** Whitaker, Jodi M (GOV OFFICE) [mailto:JodiM.Whitaker@ky.gov]  
**Sent:** Tue 6/5/2007 4:01 PM  
**To:**  
**Cc:**  
**Subject:** GOVERNOR FLETCHER NAMES ACTING COMMISSIONER OF THE GOVERNOR'S OFFICE FOR LOCAL DEVELOPMENT

<clip\_image002.jpg>  
Commonwealth of Kentucky  
Governor Ernie Fletcher's Communications Office

For Immediate Release  
June 5, 2007  
Contact:  
Jodi Whitaker  
502-564-2611

Lanny Brannock  
800-346-5606

GOVERNOR FLETCHER NAMES ACTING COMMISSIONER OF THE GOVERNOR'S OFFICE FOR LOCAL



DEVELOPMENT

Colleen Chaney accepts new position effective immediately

FRANKFORT, Ky. – Governor Ernie Fletcher today announced the appointment of Colleen B. Chaney as acting commissioner of the Governor’s Office for Local Development (GOLD). Chaney most recently served as GOLD’s deputy commissioner and executive director of the Office of State Grants.

“Colleen has a wealth of experience working with local governments from her experience at GOLD and past work at the Kentucky League of Cities,” said Governor Fletcher. “I know the great work that GOLD does to improve our communities will continue under her capable leadership.”

As GOLD commissioner, Chaney works with a staff of more than 80 employees to strengthen local communities and improve the quality of life for citizens across the commonwealth. GOLD is responsible for the administration of approximately \$100 million in state funding to local governments, nonprofit organization and special districts for community development projects. GOLD also advises local governments on sound fiscal management practices, including matters of budget, personnel and operational efficiency.

“By working closely with local officials, the Governor’s Office for Local Development is having a positive impact on the lives of citizens across the commonwealth,” said Chaney. “I consider it a privilege to continue working toward Governor Fletcher’s mission of strengthening our local communities while maintaining fiscal accountability of taxpayer dollars.”

Prior to her tenure with GOLD, Chaney worked for the Kentucky League of Cities where she focused on communication and membership initiatives.

In 2003, Chaney was named a Lexington’s Rising Star award recipient. The award recognizes the work of young professionals in central Kentucky who are making a difference in their communities.

Chaney holds a bachelor’s degree in speech communications and political science from Indiana University.

###

Jodi Whitaker  
Press Secretary  
Governor Ernie Fletcher's Office  
(502) 564-2611, ext. 334  
(502) 229-5566 (cell)

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Friday, June 22, 2007 8:02 AM  
**To:** 'Higdon, Michael'; 'hilda.legg@ky.gov'; Charles Grizzle (grizzle@grizzleco.com)  
**Subject:** RE: Wolf Creek Dam and Woodley visit

Michael:

Ten o'clock works fine here.

Direct number is:

(859) 745-9446

Barry

-----Original Message-----

**From:** Higdon, Michael [mailto:Michael.Higdon@mail.house.gov]  
**Sent:** Thursday, June 21, 2007 5:01 PM  
**To:** 'hilda.legg@ky.gov'; Charles Grizzle (grizzle@grizzleco.com); Barry Mayfield  
**Subject:** Wolf Creek Dam and Woodley visit

Any way I can talk to all three of you at once on Wolf Creek Dam? Pretty much have the same info to share...

How about a conference call at 10AM?

I think I've got everyone's number, but give me it again for good measure...

Cooper Project Scope Budget - Burnside.txt

From: Eric Gregory  
Sent: Tuesday, June 26, 2007 1:33 PM  
To: Hilda Legg (E-mail)  
Cc: Barry Mayfield  
Subject: Cooper Project Scope Budget - Burnside

Hi Hilda - Here is the draft application. I'm getting ready to call Mayor Fourman & Mr. Thompson to let them know it's being faxed to their offices.

Thanks again for all your help -

Eric

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Thursday, June 28, 2007 8:41 AM  
**To:** 'michael.higdon@mail.house.gov'  
**Cc:** 'hildalegg@yahoo.com'; 'grizzle@grizzleco.com'  
**Subject:** Emailing: weekly update 062507.doc



weekly update  
062507.doc

Michael:

Attached is the latest Cooper update submitted to the Kentucky Public Service Commission. Thank you for your continuing attention to and concern for our issue and all the others stemming from the lowering of Lake Cumberland.

Please let me know if you need anything else.

Barry

The message is ready to be sent with the following file or link attachments:

weekly update 062507.doc

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.



## J.S. Cooper Station Low Water Mitigation Project

June 25, 2007

### Construction Report

**COE.** The COE issued the temporary easement. The COE granted permission for the access road and right of entry.

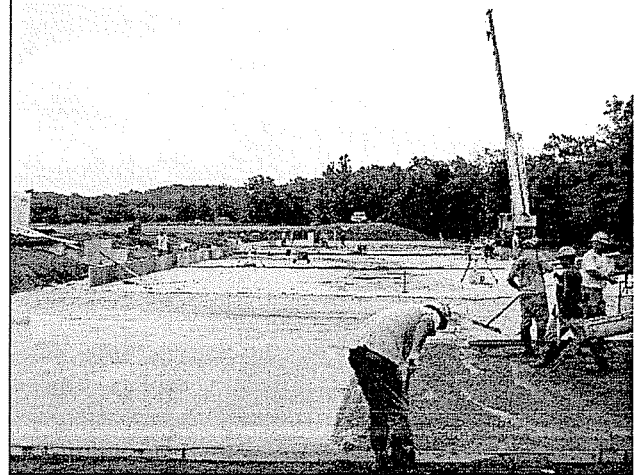
**FMSM.** Concrete testing scope of work is being executed starting June 25<sup>th</sup>. The concrete mixes have been received and FMSM will re-submit a testing procedure for the silica fume enhanced concrete mix. FMSM will make test cylinders for each 150 yards. The cylinder will be broken on 7-day and 28-day breaks to ensure quality. Bottom ash compaction is being tested as well.

**Stanley.** The engineer will be providing project status on June 29<sup>th</sup>. ITC's (Instruction to Contractor) for Reynolds will be discussed and provided for the excavation of the cooling tower. Flexi float barge arrangement for the electrically driven pumps has been accepted and waiting approval from Senior Mgt. Stanley will provide a cost breakout for Baker Concrete. The temporary piping has been issued. The BOP electrical is coming out for review. The structural steel design for the pumps is forthcoming. A design for the crane barge is underway.

**Reynolds.** The cooling tower basin excavation is being performed by Reynolds. Reynolds has completed the excavation through cell "F". Reynolds will present a price for the valve package and the cooling tower piping at the next meeting. Representatives from Reynolds met with the Plant Construction staff to discuss the tie-in to Unit 2 circulating water lines. Plant drawings were located on-site to show the yard utilities in the tie-in location. Stanley and EKPC will prepare the tie-in outage plan.

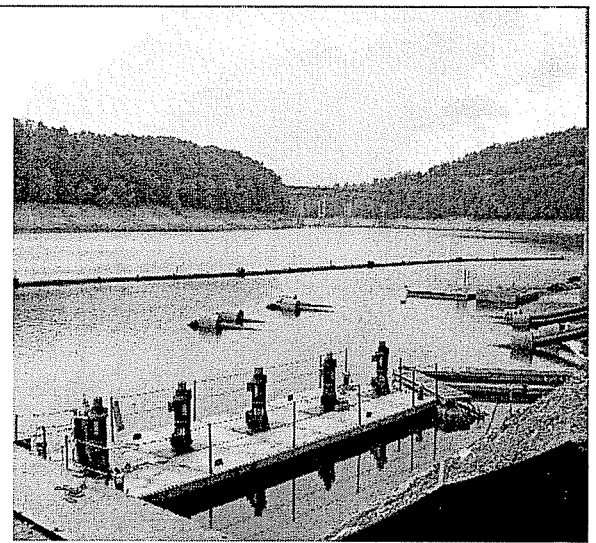
**Hall Contracting of KY.** Hall completed the new shoreline header and piping. Hall will be supplying the materials and labor needed to mount the pumps and switchgear on the Flexi float barges. A requisition has been entered for this work.

**Baker.** Baker is on-site pouring the mud mats over the supplied and compacted bottom ash. Baker began installing the rebar in cell "A" June 25<sup>th</sup>. Mud mats "A-D" are complete.



### This Week's Activities:

- ❖ Excavate cooling tower basin.
- ❖ Tie rebar in Cell "A".
- ❖ Place concrete in mud mats.
- ❖ Review for new design packages.
- ❖ Review Piping and valves pricing.
- ❖ Setup meeting for June 29<sup>th</sup>.
- ❖ Requisition barges and Installation Contractor.
- ❖ Prepare Bidder's List for BOP Contractor.
- ❖ Follow-up with Stanley on Building Code for Chemical Bldg.



**From:** Cope, Deanna R (Gov Office) [DeannaR.Cope@ky.gov]  
**Sent:** Monday, July 02, 2007 3:42 PM  
**To:** Eric Gregory  
**Cc:** Barry Mayfield  
**Subject:** RE: EKPC Cooper statistic  
Thank you so much Eric!

**Deanna Cope Brandstetter**  
Office of the Governor  
(502) 564-2611 ext. 328  
deannar.cope@ky.gov

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---

**From:** Eric Gregory [mailto:eric.gregory@ekpc.coop]  
**Sent:** Monday, July 02, 2007 3:40 PM  
**To:** Cope, Deanna R (Gov Office)  
**Cc:** Barry Mayfield  
**Subject:** EKPC Cooper statistic

Hi Deanna - Here you go - please call if we can be of help -

EKPC's John Sherman Cooper Power Station, located on the banks of Lake Cumberland near Somerset, features two coal-fired generating units that together produce 341 megawatts of electricity -- supplying enough power for about 215,025 Kentuckians.

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Tuesday, July 03, 2007 1:34 PM  
**To:** Barry Mayfield; Bob Marshall; John Twitchell; Charles Leveridge; Jerry Purvis; Eric Gregory; Nick Comer  
**Cc:** 'grizzle@grizzleco.com'; 'hildalegg@yahoo.com'  
**Subject:** RE: Emailing: Woodley Agenda.doc

To All:

Charlie has learned that Secretary Woodley will not arrive at Cooper until 10:30 a.m. He still plans to depart at noon to go to the Wolf Creek Dam. Except for the starting time, the agenda will remain the same since we have some flexibility built into the schedule.

Barry

-----Original Message-----

**From:** Barry Mayfield  
**Sent:** Tuesday, July 03, 2007 11:44 AM  
**To:** Bob Marshall; John Twitchell; Charles Leveridge; Jerry Purvis; Eric Gregory; Nick Comer  
**Cc:** 'grizzle@grizzleco.com'; 'hildalegg@yahoo.com'; Barry Mayfield  
**Subject:** Emailing: Woodley Agenda.doc

To All:

Attached is a draft of the agenda for Assistant Secretary Woodley's July 18 visit to the Cooper plant. The break room will be set up theater style to accommodate the most people. There is no indication yet as to how many others will be invited though we know some of our Congressional delegation intend to send staffers to attend. Jon Worthington, Administrator of the Southeastern Power Administration, plans to attend. Jerry and Nick are updating the powerpoint John used for his June board briefing. We're also taking Hilda's suggestion and including in that presentation a page identifying all the costs EKPC's members are shouldering so far. We'll circulate the powerpoint sometime next week. Any thoughts, suggestions or improvements are welcome.

Included in the Governor's call for a special session is funding for the Governor's Office for Local Development (GOLD) to assist with "Water, Sewer and Infrastructure projects needed because of the lowering of Lake Cumberland.."

Have a great Fourth of July.

Barry

The message is ready to be sent with the following file or link attachments:

Woodley Agenda.doc

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

## Itinerary

- 10:00 EDT ASA Woodley arrives at Somerset Airport  
Nashville District Office will pick up
- 10:30 Arrive Cooper Power Plant
- EKPC Program Presentation and Tour  
Welcome/Introductions - Bob Marshall  
Comments by Governor's Representative  
Update of the situation (powerpoint) followed by questions –  
John Twitchell  
Comments followed by questions: ASA Woodley  
Tour of In-Take Structures, barges and pumps - Charlie Leveridge
- 12:00 Lunch (Box lunch being provided by EKPC, depending upon time they  
can be eaten on site to on the road.
- Depart for Wolf Creek Dam  
Nashville District Office will transport ASA, all others in private vehicles.
- 12:30 CDT Arrive at Wolf Creek Power Plant
- Meet and Greet employees  
Briefing  
Construction Update- Barney Davis/David Hendricks (10 mins)  
Mitigation/Economic Impact-Mike Ensich (5 mins)  
Tour Gallery (Briefing on Customer-Funded Hydropower Upgrades  
Sammy Alley/Larry Craig - (20 mins)  
Project Tour/Holcomb's Landing - Davis/Hendrix (30 – 40 mins)
- 3:30 Depart to Somerset Airport
- 6:00 EDT Arrive Somerset Airport



**Barry Mayfield**

---

**From:** Barry Mayfield  
**Sent:** Friday, July 13, 2007 2:38 PM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** Application

Hilda:

Please call.

Thanks,

Barry

**Barry Mayfield**

---

**From:** Barry Mayfield  
**Sent:** Tuesday, July 10, 2007 9:03 AM  
**To:** 'Jon C. Worthington'  
**Subject:** RE: July 18th meeting in Burnside

Jon:

The only confirmation I have received is that Assistant Secretary Woodley will be visiting our Cooper Station at 10:30 a.m. that day and plans on leaving there for Wolf Creek Dam at noon. I believe that encouraging the Deputy Secretary of Energy is your call, but I'd be glad to share some thoughts if you want to talk later in the morning.

Barry

-----Original Message-----

**From:** Jon C. Worthington [mailto:Jon.Worthington@sepa.doe.gov]  
**Sent:** Monday, July 09, 2007 5:50 PM  
**To:** Barry Mayfield  
**Subject:** July 18th meeting in Burnside

Any more info about the Wolf Creek meeting on July 18th? I am planning on being there along with Leon and Herb Nadler. How much do you want me to push for the Deputy Secretary of Energy to attend?

Thanks, Jon

Jon C. Worthington

Administrator

Southeastern Power Administration

706-213-3805

**Barry Mayfield**

---

**From:** Barry Mayfield  
**Sent:** Friday, July 13, 2007 1:24 PM  
**To:** 'HildaLegg@yahoo.com'  
**Subject:** FW: July 18th meeting in Burnside

FYI

Barry

-----Original Message-----

**From:** Jon C. Worthington [mailto:Jon.Worthington@sepa.doe.gov]  
**Sent:** Monday, July 09, 2007 5:50 PM  
**To:** Barry Mayfield  
**Subject:** July 18th meeting in Burnside

Any more info about the Wolf Creek meeting on July 18th? I am planning on being there along with Leon and Herb Nadler. How much do you want me to push for the Deputy Secretary of Energy to attend?

Thanks, Jon

Jon C. Worthington

Administrator

Southeastern Power Administration

706-213-3805

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Monday, July 16, 2007 2:57 PM  
**To:** 'Legg, Hilda (EPPC OOS)'  
**Subject:** RE: ASA Woodley's Visit

Hilda:

There is no pad; it is a level field on EKPC property adjacent to the power plant. When you get a chance, please call.

Barry

-----Original Message-----

**From:** Legg, Hilda (EPPC OOS) [mailto:Hilda.Legg@ky.gov]  
**Sent:** Monday, July 16, 2007 2:39 PM  
**To:** Barry Mayfield  
**Subject:** RE: ASA Woodley's Visit

Barry: I need to know if there is a landing pad at Cooper that a state chopper could land or do we need to go to SOMerset airport? If there is a pad what are the coordinates? thanks Hilda

---

**From:** Barry Mayfield [mailto:barry.mayfield@ekpc.coop]  
**Sent:** Monday, July 16, 2007 11:54 AM  
**To:** Legg, Hilda (EPPC OOS)  
**Subject:** RE: ASA Woodley's Visit

Good Morning, Hilda. Updates to the attendees list and agenda:

Southeastern Power Administration:

Leon Jourolmon

East Kentucky Power Cooperative:

add Jerry Purvis, Angela Taulbee  
Representative from South Kentucky RECC is Steve Conover

from the draft itinerary, please omit tour of foundation work

Thanks for sending this out.

Have you heard from the Burnside Mayor?

Barry

-----Original Message-----

**From:** Legg, Hilda (EPPC OOS) [mailto:Hilda.Legg@ky.gov]  
**Sent:** Friday, July 13, 2007 2:09 PM  
**To:** McGlynn, Kathleen A Ms ASA(CW); Warren, Carol LRN; Barry Mayfield; Charles Grizzle; York,

Mark (EPPC OOS OCPO)

**Cc:** Duncan, Kathy (EPPC)

**Subject:** ASA Woodley's Visit

I have attempted to merge the various emails I have received this week into one which gives the general overview of ASA Woodley's visit. Kate, Carol and Barry- Please take a careful look and advise me of any incorrect names or spelling of names or other corrections,etc. I know there will be additional details but I thought this would give us a good start for Monday morning. Governor Fletcher regrets that he will not be able to attend. Let me know what else I can do to make this a good trip for Secy Woodley.

Hilda

Hilda Gay Legg  
Executive Director  
Governor's Office of Interagency Services  
Lake Cumberland Region  
Wolf Creek Dam Project  
Phone: 606/677-6125  
Fax: 606-677-1081  
Cell: 606/545-3090  
hilda.legg@ky.gov

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Tuesday, July 17, 2007 10:53 AM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** Emailing: Woodley Agenda.doc



Woodley  
Agenda.doc

Update Agenda. Thanks for all your help and your great spirit.

Barry

The message is ready to be sent with the following file or link attachments:

Woodley Agenda.doc

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

**A G E N D A**  
**Visit of Assistant Secretary of the Army**  
**John Paul Woodley, Jr.**  
**John Sherman Cooper Station**  
**July 18, 2007**

- |  |                             |
|--|-----------------------------|
| 10:30 a.m., Welcome and introductions                                      | Bob Marshall                |
| 10:35 a.m., Comments by Governor's Representative                          |                             |
| 10: 40 a.m., Update of the situation (powerpoint)<br>followed by questions | John Twitchell              |
| 10:55 a.m., Comments<br>followed by questions                              | Assistant Secretary Woodley |
| 11:05 a.m., Tour of in-take structures, barges<br>and pumps                | Charles Leveridge           |
| 11:45 a.m., lunch  |                             |
| Noon, Assistant Secretary Woodley departure                                |                             |

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Tuesday, July 17, 2007 11:13 AM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** Emailing: Corps visit presentation\_NO MAPS\_DRAFT.ppt



Corps visit  
resentation\_NO MA.

Hilda:

Attached is John's brief presentation for tomorrow. We will have copies available at Cooper for anyone who might want one.

Barry

The message is ready to be sent with the following file or link attachments:

Corps visit presentation\_NO MAPS\_DRAFT.ppt

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.



## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Thursday, July 19, 2007 10:23 AM  
**To:** 'raamato@ky.gov'  
**Subject:** Emailing: Corps visit presentation\_NO MAPS\_DRAFT.ppt



Corps visit  
resentation\_NO MA.

Bob:

Thank you for attending our briefing session yesterday and for the Commission's continued interest in the Cooper Station/Lake Cumberland issues. Attached is a copy of John's presentation. If you have any questions, please call.

Barry

The message is ready to be sent with the following file or link attachments:

Corps visit presentation\_NO MAPS\_DRAFT.ppt

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

## Barry Mayfield

---

**From:** Barry Mayfield  
**nt:** Friday, July 20, 2007 3:36 PM  
**o:** 'Jon.Worthington@sepa.doe.gov'  
**Subject:** Emailing: Corps visit presentation\_NO MAPS\_DRAFT.ppt



Corps visit  
resentation\_NO MA.

Jon:

Thank you again for traveling so far to visit our Cooper Station and the Wolf Creek Dam. I know its a long trip, and I hope you found the opportunity beneficial. Attached is John Twitchell's presentation.

Have a good weekend.

Barry

The message is ready to be sent with the following file or link attachments:

Corps visit presentation\_NO MAPS\_DRAFT.ppt

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Friday, July 20, 2007 9:01 AM  
**To:** John Twitchell  
**Subject:** FW: Emailing: Corps visit presentation\_NO MAPS\_DRAFT.ppt

FYI

Barry

-----Original Message-----

**From:** York, Mark (EPPC OOS OCPO) [mailto:Mark.York@ky.gov]  
**Sent:** Thursday, July 19, 2007 2:04 PM  
**To:** Barry Mayfield  
**Subject:** RE: Emailing: Corps visit presentation\_NO MAPS\_DRAFT.ppt

Thanks very much. We appreciate the opportunity for yesterday's visit and for the chance to see first-hand the work underway at the Cooper station. Thanks again.

-----Original Message-----

**From:** Barry Mayfield [mailto:barry.mayfield@ekpc.coop]  
**Sent:** Thursday, July 19, 2007 10:36 AM  
**To:** York, Mark (EPPC OOS OCPO)  
**Cc:** Legg, Hilda (EPPC OOS)  
**Subject:** Emailing: Corps visit presentation\_NO MAPS\_DRAFT.ppt

Mark:

Attached is a copy of John's presentation at the Cooper Station briefing yesterday. We appreciate your attendance and the concern of Governor Fletcher and his administration for the serious issues stemming from the lowering of Lake Cumberland.

Please call if you have any questions.

Barry

The message is ready to be sent with the following file or link attachments:

Corps visit presentation\_NO MAPS\_DRAFT.ppt

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.  
<<Corps visit presentation\_NO MAPS\_DRAFT.ppt>>

**LOW WATER  
MITIGATION PLAN  
FOR COOPER POWER  
STATION**

**JOHN TWITCHELL, PE**

**July 18, 2007**

## Low Water Mitigation Plan

- Wolf Creek Dam Requires Repair
- COE Has Lowered Lake Cumberland to 680'
- COE Advised Lake Users to be Prepared for 650' at End of December, 2007
- Adverse Impacts to EKPC and Transmission Grid

# Worst-Case Scenario

- Cooper Station shuts down
- Possible rotating blackouts
  - More than 250,000 people and hundreds of businesses in 9 counties
  - Would affect customers of other utilities
- \$71 million in annual replacement power costs to all EKPC members
- Public health and safety threatened
- Significant economic impact

# MAP1

# Low Water Mitigation Plan

- Recommendation (Approved by PSC)
  - ❖ Cooling Tower on Unit No. 2, Barge Mounted Pumps on Unit No. 1
  - ❖ Supplemental Supply System for Summer of 2007
  
- Implementation
  - ❖ Install Supplemental System
  - ❖ Integrate into Unit No. 1 Pumps
  - ❖ Phase in Unit No. 2 Cooling Tower to Minimize Capital Expense



# Costs To Members

- Replacement of hydro power from Wolf Creek Dam
  - ❖ \$13.5 million annually
- Replacement of coal-fired power due to de-rating of Cooper units
  - ❖ \$1.8 million in June
  - ❖ Similar costs being incurred in July
- Low water mitigation plan
  - ❖ Pumps, barges, associated equipment
  - ❖ \$7.7 million

# Future Costs To Members

- Low water mitigation plan, future (depends on Corps decision)
  - ❖ Cooling tower, additional equipment
  - ❖ \$16.3 million
- EKPC's share of \$309 million in dam repair costs
- Other unknown costs

## Barry Mayfield

---

From: Barry Mayfield  
Sent: Tuesday, July 17, 2007 8:16 AM  
To: 'Hilda Legg'  
Subject: RE: Application

Hilda:

We had no e-mail for him and I personally faxed it to the number listed on the application and received a confirmation that it was received. That number is: 606 561-6604. We can bring a printed copy tomorrow.

Let's talk briefly about the invitees list.

Barry

-----Original Message-----

From: Hilda Legg [mailto:hildalegg@yahoo.com]  
Sent: Tuesday, July 17, 2007 8:08 AM  
To: Barry Mayfield  
Subject: RE: Application

Barry I talked to Mayor yesterday but he had not seen anything, I did not ask about an email, guess I should have. Maybe we can pick up a copy for you guys on Wed.

Also, I have on my list to invite locally and have already done some, Mayor Fourman, Judge Bullock, Tourism Dir. Carolyn Mounce, Marina Assoc. Tony Loan,

We have the fed ofc reps, and local REcc, anyone else you can think of?

At this point, I think it will be Mark York, SEcy Hill's COS, and maybe General Clay Bailey from EMS, I am still hoping for Robbie. Will be in my office this morning, on road this afternoon, thanks, Hilda

Hilda Gay Legg  
Legg Strategies  
(606) 679-0049  
(703) 474 0784

-----Original Message-----

From: Barry Mayfield [mailto:barry.mayfield@ekpc.coop]  
Sent: Friday, July 13, 2007 3:31 PM  
To: HildaLegg@yahoo.com  
Subject: Application

Hilda:

I faxed the application to Mayor Fourman and asked him to call if he wanted an electronic copy. All we had was the fax number. As always, we appreciate all your help.

Barry

Barry Mayfield  
Director, External Affairs  
East Kentucky Power Cooperative  
1775 Lexington Road  
Winchester, Ky. 40391  
Office: (859) 745-9446  
Fax: (859) 737-6078

Cell: (859) 229-4072  
Frankfort: (502) 223-7030  
Frankfort fax: (502) 223-7031  
[www.ekpc.coop](http://www.ekpc.coop)

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Thursday, July 19, 2007 10:07 AM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** FW: Construction Weekly Report from Cooper Station

Hilda:

Attached is our weekly construction update which as you can see below is copied to the PSC. Thanks again for all your patience, persistence and pizzazz in making yesterday's visit such a success.

Aloha!

Barry

-----Original Message-----

**From:** Charles Leveridge  
**Sent:** Wednesday, July 18, 2007 7:12 AM  
**To:** P. E. Robert A. Amato (raamato@ky.gov)  
**Cc:** Barry Mayfield; Susan Gill  
**Subject:** FW: Construction Weekly Report from Cooper Station

Latest construction report.

Charles Leveridge

Plant Manager  
Cooper Power Station  
P.O. Box 38  
Burnside, KY 42519

606-561-4138

-----Original Message-----

**From:** Jerry Purvis  
**Sent:** Tuesday, July 17, 2007 7:34 PM  
**To:** Charles Leveridge; Craig Johnson; Chuck Woodall  
**Cc:** John Twitchell  
**Subject:** Construction Weekly Report from Cooper Station

Here is the latest construction report for the project.

Jerry P

Jerry Purvis | East Kentucky Power Cooperative | J.S.Cooper Power Station

**Engineering & Maintenance Superintendent**

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

9/19/2007



## J.S. Cooper Station Low Water Mitigation Project

July 13, 2007

### Construction Report

**COE.** The COE has requested that EKPC submit a drawing illustrating the possible sites for a permanent cooling tower intake. The legal descriptions are being prepared by Palmer Engineering. EKPC Legal will review these documents and provide them to the COE.

**FMSM.** The concrete pours are being tested by FMSM labs. The 7-day breaks have been acceptable.

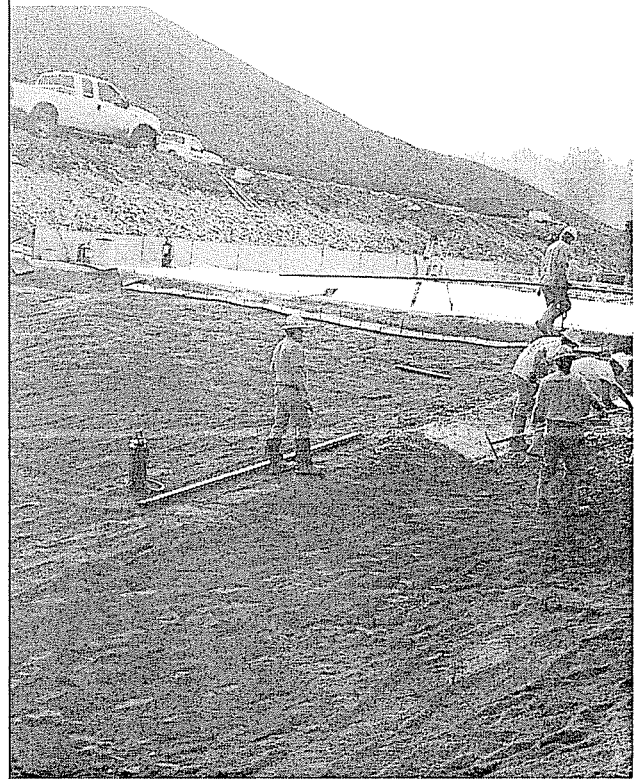
**Stanley.** The engineer prepared the contract documentation for the concrete piping that will tie Unit 2 to the cooling tower. The temporary barge electrical package has been reviewed and released to Power-Tel, A Division of Hall Contracting for pricing. The cooling tower electrical package will come out July 20<sup>th</sup> for review. This package will be submitted to contractors for bid.

**Reynolds.** The cooling tower basin excavation is complete. The concrete piping and fittings have been ordered. Reynolds provided the breakout information to Stanley and EKPC.

**Hall Contracting of KY.** Hall configured the pump barges. The bridge steel for the pumps has been designed and purchased. The steel for the switchgear has been designed and ordered as well. Hall completed the work necessary to tie Unit 1 and Unit 2 together from the diesel and supplemental pumps. This enables cooler water to be pumped into each respective wet well.

**Baker.** Baker has completed the mud mats, bottom ash placement and compaction. Baker has completed the rebar and slabs in cells A-D. They are working toward having the walls complete for 5 cells by August 9<sup>th</sup>.

**Power-Tel.** The project manager visited the site to review the electrical package with the Stanley design engineer. An estimate will be prepared based on material availability and labor for the temporary pump barge arrangement.



#### This Week's Activities:

- ❖ Excavation is complete.
- ❖ Tie rebar in Wall Cell "A" and "C".
- ❖ Place concrete in slabs "B" and "D".
- ❖ Review for new electrical design packages.
- ❖ Order valve packages and concrete piping.
- ❖ Setup next meeting time.
- ❖ Purchase order for Crane barge.
- ❖ Prepare Bidder's List for BOP Contractor.
- ❖ Stanley to complete the design for the Chemical Building per KY Code.

## Wolf Creek Lake Cumberland Level

# 680.53

**Barry Mayfield**

---

**From:** Barry Mayfield  
**Sent:** Wednesday, July 25, 2007 4:02 PM  
**To:** Jerry Purvis  
**Subject:** RE: EKPC Cooper Power Plant Water Intake

Thanks, Jerry.

Barry

-----Original Message-----

**From:** Jerry Purvis  
**Sent:** Wednesday, July 25, 2007 4:00 PM  
**To:** 'Reggie.Chaney@ky.gov'  
**Cc:** Charles Leveridge; Barry Mayfield; Eric Gregory  
**Subject:** EKPC Cooper Power Plant Water Intake

Reggie:

I appreciate the phone call. Here are the answers to your 4 questions.

1. 215,025 Kentuckians are served by the Cooper Plant
2. In order to meet the cooling water demands for Cooper Station, we are utilizing 4 pumps on floating barges to supply Unit 1 and building a cooling tower for Unit 2. This is the hybrid plan in the PSC order. This plan ensures the operation of Cooper Station and maintains the integrity of the transmission system in South Central Kentucky.
3. A study was conducted by Stanley Consultants in March of 2007. Six scenarios came out of the study with engineering estimates completed. This plan was chosen because it was most available, cost effective, and expedient plan to construct in 7 months. The Board of EKPC and the PSC approved it. The PSC order is attached.
4. This plan will allow us to operate to elevation 650 feet.

Jerry P

Jerry Purvis | East Kentucky Power Cooperative | J.S.Cooper Power Station

**Engineering & Maintenance Superintendent**

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

☎ 606.561.4138 📠 606.561.5697 ✉ [jerry\\_purvis@ekpc.coop](mailto:jerry_purvis@ekpc.coop)



-----Original Message-----

**From:** Chaney, Reggie (GOLD) [<mailto:Reggie.Chaney@ky.gov>]  
**Sent:** Wednesday, July 25, 2007 10:52 AM

**To:** Jerry Purvis  
**Cc:** Kiser, Gene (GOLD)  
**Subject:** Power Plant Water Intake

Jerry:

I appreciate the conversation that we had on the phone a few minutes ago. The following are questions that we will need the answers to for Grant purposes:

1. Number of residents and businesses or what ever served.
2. Engineer's Assessment (Description of what is being planned to do)
3. Cost Effectiveness
4. Elevation that this will allow operation to.

Thanks in advance for your help. Send information to [reggie.chaney@ky.gov](mailto:reggie.chaney@ky.gov)

Reginald Chaney P.E.  
Staff Engineer  
Governor's Office for Local Development  
Office of State Grants  
807 Monticello Street, Suite 10  
Somerset, Kentucky 42501  
(606) 677-6097  
Mobile (502) 229-5773  
Fax (606) 677-1081



## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Friday, July 27, 2007 11:13 AM  
**To:** 'Legg, Hilda (EPPC OOS)'  
**Subject:** RE: Wolf Creek Press release

Thanks, Hilda.

Barry

-----Original Message-----

**From:** Legg, Hilda (EPPC OOS) [mailto:Hilda.Legg@ky.gov]  
**Sent:** Friday, July 27, 2007 11:12 AM  
**To:** Barry Mayfield  
**Subject:** Fw: Wolf Creek Press release

Fyi

----- Original Message -----

**From:** Wilson, Mike LRN <Mike.W.Wilson@usace.army.mil>  
**To:** Ward, George (Commerce); Legg, Hilda (EPPC OOS); Gilligan, Chris (Commerce)  
**Sent:** Fri Jul 27 08:53:09 2007  
**Subject:** Wolf Creek Press release

Hilda, George and Chris,

Attached and embedded in this email is the draft press release for our decision to maintain a El. 680 pool. We would like to send the release out by 1100 CDT if possible. Please let me know if you have comments or suggestions.

Mike Wilson

U.S. Army Corps of Engineers to continue elevation 680 at Lake Cumberland

NASHVILLE, TENN. (July 27, 2007) - The U.S. Army Corps of Engineers, Nashville District, has announced plans to continue to hold the level of Lake Cumberland at elevation 680 unless project conditions worsen.

The 680 level was implemented in January and has reduced hydrostatic pressure on the dam and decreased seepage, therefore lowering the risks to people and property. The reduction to 680 has impacted the project purposes of Hydropower, Water Supply, Water Quality, Recreation and Navigation, but public health and safety remain the highest priority of the Corps of Engineers.

At elevation 680, Wolf Creek Dam is stable and improving. The project has responded to this lake level with improved project conditions that include: improved critical indicators, slightly reduced piezometers readings, and fewer wet spots downstream. Expedited grouting is continuing in the critical areas and should be complete by September.

Operating Lake Cumberland at 680 feet during the construction of the Major Rehabilitation will continue to reduce risk and allow other project purposes to continue, albeit with severe impacts.

-more-

The Corps is working to establish criteria and a decision process for the future pool elevations of Lake Cumberland. This is expected to be complete by mid-September and stakeholders and the public will be informed.

The Corps moved up this decision from the late Fall 07 timeframe, in order to provide stakeholders more time to make decisions about next year's recreation season and other business interests. The Corps was able to make this

decision early based on the improving conditions at the dam, but Wolf Creek Dam continues to be a high risk dam with interim risk reduction measures in place and an expedited grouting program ongoing.

In February, the Corps requested that the 11 municipal and private water supply users extend their water supply intakes to elevation 650 as a contingency planning measure. The Corps believes this recommendation is still an appropriate measure for water supply users to take. If a distress indicator was observed at Wolf Creek Dam, then the Corps would have the ability to lower the lake level without affecting the water supply for residents and for public safety use around Lake Cumberland.

The Corps has an aggressive Dam Safety Program that includes constant monitoring of all of the dams in the Cumberland River System. The Corps, in cooperation with state and local agencies, maintains emergency notification plans to be used in the event of a failure. The Corps will keep the public informed of the conditions of at Wolf Creek Dam and the progress of rehabilitation work throughout the project with news releases and postings on the website:

<http://www.lrn.usace.army.mil/WolfCreek/index.htm> <<http://www.lrn.usace.army.mil/WolfCreek/index.htm>>  
<<07-37.doc>>

## Barry Mayfield

---

**From:** Barry Mayfield  
**ent:** Friday, July 27, 2007 3:47 PM  
**ro:** 'Amato, Robert A (PSC)'  
**Subject:** RE: Wolf Creek - News Release - U.S. Army Corps of Engineers to continue elevation 680 at Lake Cumberland

Glad to help.

Barry

-----Original Message-----

**From:** Amato, Robert A (PSC) [mailto:raamato@ky.gov]  
**Sent:** Friday, July 27, 2007 3:43 PM  
**To:** Barry Mayfield  
**Subject:** RE: Wolf Creek - News Release - U.S. Army Corps of Engineers to continue elevation 680 at Lake Cumberland

I received the Governor's press release. Thanks for sending this one to me.

Bob

-----Original Message-----

**From:** Barry Mayfield [mailto:barry.mayfield@ekpc.coop]  
**Sent:** Friday, July 27, 2007 3:38 PM  
**To:** Amato, Robert A (PSC)  
**Subject:** FW: Wolf Creek - News Release - U.S. Army Corps of Engineers to continue elevation 680 at Lake Cumberland

Bob:

Have you received a copy of the Governor's response?

Barry



**US Army Corps  
Of Engineers®**  
Nashville District  
P.O. Box 1070  
Nashville, TN 37202-1070

# News Release

07-37	Bill Peoples <a href="mailto:bill.peoples@us.army.mil">bill.peoples@us.army.mil</a>
Release No.	Contact:
IMMEDIATE	(615) 736-7161
For Release: July 27, 2007	Phone:

## **U.S. Army Corps of Engineers to continue elevation 680 at Lake Cumberland**

**NASHVILLE, TENN. (July 27, 2007)** - The U.S. Army Corps of Engineers, Nashville District, has announced plans to continue to hold the level of Lake Cumberland at elevation 680 unless project conditions worsen.

At elevation 680, Wolf Creek Dam is stable and improving. The 680 level was implemented in January and has reduced hydrostatic pressure on the dam and decreased seepage, therefore lowering the risks to people and property. The project has responded to this lake level with improved project conditions that include: improved critical indicators, slightly reduced piezometers readings, and fewer wet spots downstream. Expedited grouting is continuing in the critical areas and should be complete by September.

The Corps moved up this decision from the late Fall 07 timeframe, in order to provide stakeholders more time to make decisions about next year's recreation season and other business interests. The Corps was able to make this decision early based on the improving conditions at the dam, but Wolf Creek Dam continues to be a high risk dam with interim risk reduction measures in place and an expedited grouting program ongoing.

-more-

# **To Better Serve The Public**

*Wolf Creek remaining at 680 2-2-2*

The reduction to 680 has impacted the project purposes of Hydropower, Water Supply, Water Quality, Recreation and Navigation, but public health and safety remain the highest priority of the Corps of Engineers. Operating Lake Cumberland at 680 feet during the construction of the Major Rehabilitation will continue to reduce risk and allow other project purposes to continue, albeit with severe impacts.

The Corps is working to establish criteria and a decision process for the future pool elevations of Lake Cumberland. This is expected to be complete by mid-September and stakeholders and the public will be informed.

In February, the Corps requested that the 11 municipal and private water supply users extend their water supply intakes to elevation 650 as a contingency planning measure. The Corps believes this recommendation is still an appropriate measure for water supply users to take. If a distress indicator was observed at Wolf Creek Dam, then the Corps would have the ability to lower the lake level without affecting the water supply for residents and for public safety use around Lake Cumberland.

The Corps has an aggressive Dam Safety Program that includes constant monitoring of all of the dams in the Cumberland River System. The Corps, in cooperation with state and local agencies, maintains emergency notification plans to be used in the event of a failure. The Corps will keep the public informed of the conditions of at Wolf Creek Dam and the progress of rehabilitation work throughout the project with news releases and postings on the website: <http://www.lrn.usace.army.mil/WolfCreek/index.htm>

**Barry Mayfield**

---

**From:** Barry Mayfield  
**Sent:** Tuesday, August 07, 2007 10:38 AM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** FW: EKPC Cooper Power Plant Water Intake

FYI

Barry

-----Original Message-----

**From:** Jerry Purvis  
**Sent:** Tuesday, August 07, 2007 9:20 AM  
**To:** 'Chaney, Reggie (GOLD)'  
**Cc:** Barry Mayfield; Eric Gregory; Charles Leveridge  
**Subject:** RE: EKPC Cooper Power Plant Water Intake

Reggie:

I read your email yesterday and here is the response to your questions. I hope this helps. Email or call us anytime. We sincerely appreciate your help.

Jerry Purvis

Please read below. Thank you.

Jerry Since the announcement from the Corps of Engineers concerning the level of the lake what is the status of EKPC's Project at Cooper Power Plant?

Our application to GOLD focuses solely on construction and implementation of pumps and barges to address the emergency stemming from lake levels at 680 feet. Those pumps and barges are urgent and currently under construction, and are not impacted by the Corps' announcement. We have delayed construction of the cooling tower for 30 days due to the Corps' announcement, and are currently evaluating whether to move forward with its construction.

We agree with Gov. Fletcher's response to the Corps' announcement -- that it's important for these projects to continue, because the actual construction repair work for the Dam will not begin until next year. And, repairs could take up to seven years to complete, during which time the Corps could lower the lake again. If that happens, we must be prepared.

What elements are you still planning on doing and what elements have you removed?

We are continuing to construct and implement the pumps and barges to address the ongoing emergency at 680 feet. Even though the PSC's Order approved construction of the cooling tower, we did not include any expenditures or funding for it in our GOLD application for \$7.7 million. The cooling tower always has been in the second phase of modifications and may or may not be built, depending on actions or decisions by the Corps this fall regarding lake levels.

9/19/2007

Also, in your order from PSC it talks about Engineering and field services what has happen to those items in your application to us and what about the Cooling Tower it is not in our application?

Engineering is complete for the pumps and barges, and they are currently under construction. Engineering for the proposed cooling tower is nearly complete; we did not include any expenses for the cooling tower in our GOLD application since there is a possibility that it might not be built.

**Eric Gregory Governmental Affairs Manager, and Jerry Purvis, Cooper Station**

**East Kentucky Power Cooperative**

4775 Lexington Road

Winchester, Ky. 40391

Office: (859) 745-9453

Fax: (859) 737-6078

Cell: (859) 771-1050

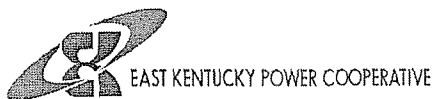
Jerry Purvis | East Kentucky Power Cooperative | J.S.Cooper Power Station

**Engineering & Maintenance Superintendent**

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

( 606.561.4138 📠 606.561.5697 ✉ [jerry.purvis@ekpc.coop](mailto:jerry.purvis@ekpc.coop)



-----Original Message-----

**From:** Chaney, Reggie (GOLD) [mailto:Reggie.Chaney@ky.gov]  
**Sent:** Monday, August 06, 2007 2:01 PM  
**To:** Jerry Purvis  
**Cc:** Kiser, Gene (GOLD)  
**Subject:** RE: EKPC Cooper Power Plant Water Intake

Jerry Since the announcement from the Corps of Engineers concerning the level of the lake what is the status of EKPC's Project at Cooper Power Plant?

What elements are you still planning on doing and what elements have you removed?  
Also, in your order from PSC it talks about Engineering and field services what has happen to those items in your application to us and what about the Cooling Tower it is not in our application?

---

**From:** Jerry Purvis [mailto:jerry.purvis@ekpc.coop]  
**Sent:** Wednesday, July 25, 2007 4:00 PM  
**To:** Chaney, Reggie (GOLD)  
**Cc:** Charles Leveridge; Barry Mayfield; eric.gregory@ekpc.coop  
**Subject:** EKPC Cooper Power Plant Water Intake

Reggie:

I appreciate the phone call. Here are the answers to your 4 questions.

1. 215,025 Kentuckians are served by the Cooper Plant
2. In order to meet the cooling water demands for Cooper Station, we are utilizing 4 pumps on floating barges to supply Unit 1 and building a cooling tower for Unit 2. This is the hybrid plan in the PSC order. This plan ensures the operation of Cooper Station and maintains the integrity of the transmission system in South Central Kentucky.
3. A study was conducted by Stanley Consultants in March of 2007. Six scenarios came out of the study with engineering estimates completed. This plan was chosen because it was most available, cost effective, and expedient plan to construct in 7 months. The Board of EKPC and the PSC approved it. The PSC order is attached.
4. This plan will allow us to operate to elevation 650 feet.

Jerry P

Jerry Purvis | East Kentucky Power Cooperative | J.S.Cooper Power Station

**Engineering & Maintenance Superintendent**

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

☎ 606.561.4138 📠 606.561.5697 ✉ [jerry.purvis@ekpc.coop](mailto:jerry.purvis@ekpc.coop)



EAST KENTUCKY POWER COOPERATIVE

-----Original Message-----

**From:** Chaney, Reggie (GOLD) [mailto:Reggie.Chaney@ky.gov]  
**Sent:** Wednesday, July 25, 2007 10:52 AM  
**To:** Jerry Purvis  
**Cc:** Kiser, Gene (GOLD)



**Subject:** Power Plant Water Intake

Jerry:

I appreciate the conversation that we had on the phone a few minutes ago. The following are questions that we will need the answers to for Grant purposes:

1. Number of residents and businesses or what ever served.
2. Engineer's Assessment (Description of what is being planned to do)
3. Cost Effectiveness
4. Elevation that this will allow operation to.

Thanks in advance for your help. Send information to [reggie.chaney@ky.gov](mailto:reggie.chaney@ky.gov)

Reginald Chaney P.E.  
Staff Engineer  
Governor's Office for Local Development  
Office of State Grants  
807 Monticello Street, Suite 10  
Somerset, Kentucky 42501  
(606) 677-6097  
Mobile (502) 229-5773  
Fax (606) 677-1081

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Tuesday, August 07, 2007 11:05 AM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** Emailing: WRDA Wolf Creek Dam.pdf



WRDA Wolf Creek  
Dam.pdf

FYI

Barry

The message is ready to be sent with the following file or link attachments:

WRDA Wolf Creek Dam.pdf

Note: To protect against computer viruses, e-mail programs may prevent sending or receiving certain types of file attachments. Check your e-mail security settings to determine how attachments are handled.

# HOUSE OF REPRESENTATIVES FILING COPY

HLC

110TH CONGRESS } HOUSE OF REPRESENTATIVES { REPORT  
2d Session } 110-\_\_\_\_\_

---

## WATER RESOURCES DEVELOPMENT ACT OF 2007

\_\_\_\_\_, 2007.—ORDERED TO BE PRINTED

Mr. OBERSTAR, from the committee of conference,  
submitted the following

### CONFERENCE REPORT

[To accompany H.R. 1495]

The committee of conference on the disagreeing votes of the two Houses on the amendment of the Senate to the bill (H.R. 1495), to provide for the conservation and development of water and related resources, to authorize the Secretary of the Army to construct various projects for improvements to rivers and harbors of the United States, and for other purposes, having met, after full and free conference, have agreed to recommend and do recommend to their respective Houses as follows:

That the House recede from its disagreement to the amendment of the Senate and agree to the same with an amendment as follows:

In lieu of the matter proposed to be inserted by the Senate amendment, insert the following:

Fiscal Year 2003, Congress appropriated \$3.5 million for the project. Yet, Manatee County has received only \$2.3 million in reimbursement from the Army Corps of Engineers and is still owed over \$1.7 million for work that was completed in 2002. Many local communities and other non-federal project sponsors that undertake federal projects put their financial security at stake and timely reimbursement by the Corps of Engineers is critical to their economic prosperity.

The Corps recently determined that the stability of Wolf Creek Dam is threatened by seepage under and around the dam, increasing the risk of catastrophic failure. The managers recognize that the Corps has cited an extreme concern for safety and lowered the level of Lake Cumberland dramatically to mitigate the risk of failure. The managers recognize that the Nashville District of the Corps has recommended that this project be classified as a dam safety project and therefore subject to reimbursement rates in accordance with the Dam Safety Act. Given the threat to safety as cited by the Corps and the recommendation by the Corps district office, the managers urge the administration to accept the recommendation of the Corps to classify this project as dam safety, and to finalize such a decision as soon as possible.

The managers have increasingly heard concerns from members of Congress regarding the backlog in the processing of permits under section 404 of the Clean Water Act. In particular, the Jacksonville District of the Corps of Engineers processes 1/8 of all the permits nationwide. The managers direct the Chief of Engineers to examine the permitting workload and consider alternatives for better distribution of the workload. The managers also direct the Chief of Engineers to work with States using current authorities to minimize the time required for the Corps to respond to permit applications.

## COMPLIANCE WITH HOUSE RULE XXI

Pursuant to clause 9 of rule XXI of the Rules of the House of Representatives, the Committee on Transportation and Infrastructure is required to include a list of congressional earmarks, limited tax benefits, or limited tariff benefits (as defined in clause 9(d), 9(e), or 9(f) of rule XXI of the Rules of the House of Representatives) in the Conference Report. The Committee on Transportation and Infrastructure requires Members of Congress to comply with all requirements of clause 9(d), 9(e), or 9(f) of rule XXI. The following table provides the list of such provisions included in the Conference Report:

[insert Rule XXI Table]

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Friday, August 17, 2007 11:01 AM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** FW: Construction Report from Cooper Station

FYI

Barry

-----Original Message-----

**From:** Jerry Purvis  
**Sent:** Thursday, August 16, 2007 11:57 AM  
**To:** Charles Leveridge; Mark Moneyhon; Mike Binkley  
**Cc:** 'raamato@ky.gov'; Barry Mayfield; Craig Johnson; John Twitchell  
**Subject:** Construction Report from Cooper Station

Gentlemen:

Here is the latest construction report. Let me know if you need any additional information.

Jerry Purvis

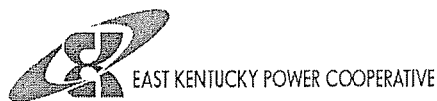
Jerry Purvis | East Kentucky Power Cooperative | J.S.Cooper Power Station

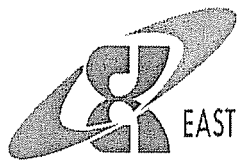
**Maintenance Superintendent**

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

☎ 606.561.4138 📠 606.561.5697 ✉ [jerry.purvis@ekpc.coop](mailto:jerry.purvis@ekpc.coop)





EAST KENTUCKY POWER COOPERATIVE

## J.S. Cooper Station Low Water Mitigation Project

August 16, 2007

### Construction Report

**Palmer Engineering.** EKPC Legal approved the easements and their descriptions. The COE, Nashville, received it by email today.

**FMSM.** The concrete pours are being tested by FMSM labs. The 7-day breaks have been acceptable.

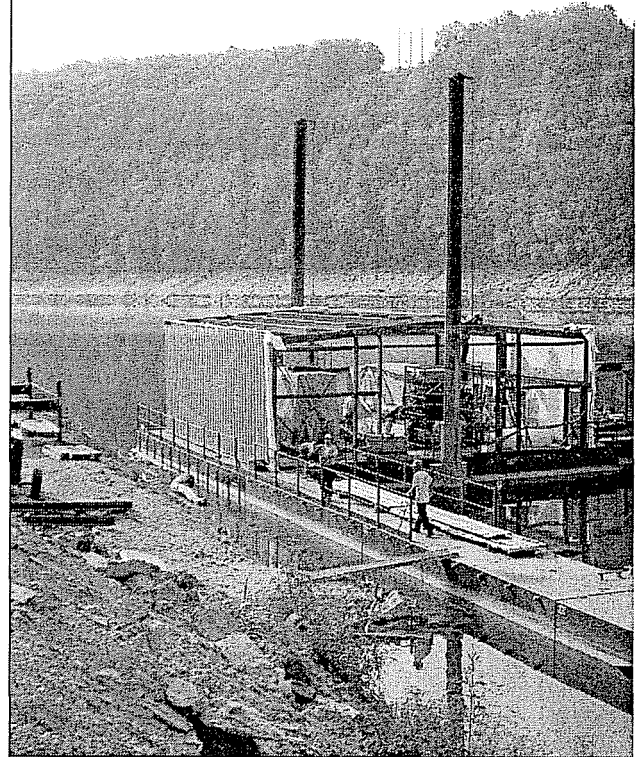
**Stanley.** The engineer prepared the letters for the contractors to establish the 30-day delay. Baker will complete the basin. Reynolds and SPX/Marley have been delayed in their work due to a statement from the COE. The press release said that the lake level will remain at 680 through 2008.

**Reynolds.** The concrete piping has been ordered from Price Brothers. The exploratory dig is on-hold as well as the valve package. The BOP contract is on hold. Reynolds is responsible for the cooling tower backfill and foundation drain when Baker is complete.

**Hall Contracting of KY.** Hall is in the process of erecting the building over the switchgear. The HDPE piping has been fabricated and is ready to be installed once the barge is in position.

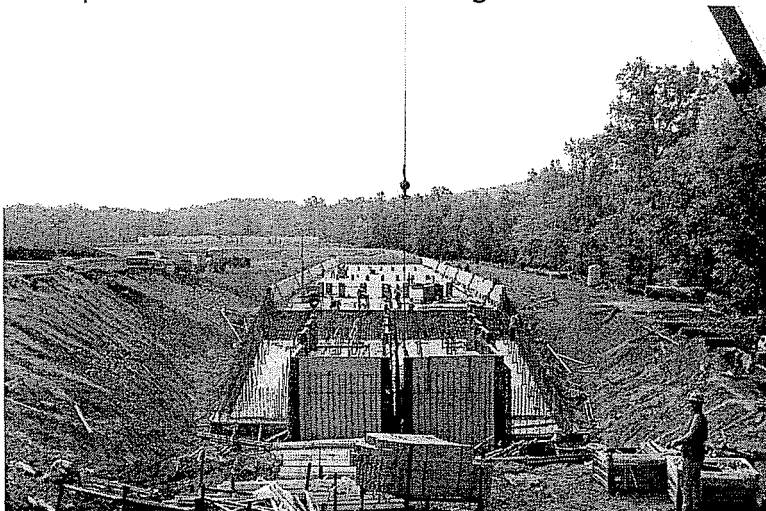
**Baker.** Baker has completed placing concrete in the last cell. They are installing the forms for the pump pit. They have moved to a non-overtime schedule due to the delay.

**Power-Tel.** The project manager and a large labor force are on-site running conduit, cable, and tray to pump barge. Rigid conduit is being placed on the barge for the pumps electrical supply. Conduits have been placed behind Unit 2 underground.



#### This Week's Activities:

- ❖ Cooling Tower Delay
- ❖ Meeting in Nashville, District COE Office. PSC attendance. August 17, 2007.
- ❖ Two week delay on materials shipment from SPX/Marley.
- ❖ Hall Contracting erection of building continuin Switchgear under roof by the weekend of the 19<sup>th</sup>.
- ❖ Power-Tel working on the conduit and cabling the pump barge platform.



Wolf Creek Lake  
Cumberland Level  
680.85

## Barry Mayfield

---

**From:** Barry Mayfield  
**Content:** Wednesday, August 29, 2007 7:44 AM  
**To:** John Twitchell; Jerry Purvis  
**Cc:** Eric Gregory  
**Subject:** FW: Draft letter to East KY Power Cooperative



East KY Power  
Coop - 27 Aug 07...

Did you all receive this yesterday?

Barry

Ms. Legg / Mr. Purvis,

Attached is the draft letter to Mr. John Twitchell of East Kentucky Power Cooperative sent on behalf of Mike Wilson.

Thank you,

Kathy Canaday

Secretary, PPPMD

3 Army Corps of Engineers, Nashville District

Phone: 615-736-2342

Fax: 615-736-2052

<<East KY Power Coop - 27 Aug 07.doc>>

# DRAFT

Planning, Programs and Project Delivery

Mr. John R. Twitchell, P.E.  
Senior Vice President  
East Kentucky Power Cooperative  
4775 Lexington Road  
Post Office Box 707  
Winchester, Kentucky 40392-0707

Dear Mr. Twitchell,

I want to thank you for traveling to Nashville on August 24, 2007, to discuss the future of Lake Cumberland pool elevations with the Nashville District Corps of Engineers. I am writing this letter to summarize our discussion and offer the Corps' assistance in answering any remaining questions Eastern Kentucky Power may have concerning the Lake Cumberland pool or the Wolf Creek project.

As we discussed, the Corps has modified our position on how we will manage Lake Cumberland in the future. There are two scenarios that might lead to a pool lower than elevation 680. First, our current position is that we will not lower the pool below elevation 680 unless we identify a distress indicator such as the sudden appearance of a sinkhole, sudden unexplained changes in piezometer readings, or muddy flows in the tailrace that indicates a failure is in progress. Second, it is always possible that a drought such as the one we are currently experiencing makes it impossible to maintain the elevation 680 pool because river inflow is less than combined evaporation and required downstream releases for water quality.

This current proposal is a change from our original plans that involved keeping the pool at the lowest elevation that would not induce other life safety risks to the area. Now, even if local water intakes are lowered, we intend to stay at a minimum elevation 680 unless a stress indicator dictates we must go lower or drought makes it impossible to hold the pool at elevation 680. Even though we intend to stay at a minimum elevation of 680, we still recommend water intake users lower their intakes to elevation 650 in the event emergency measures require the pool to be lowered.



# DRAFT

- 2 -

Please feel free to contact my office if you have additional questions. My main point of contact is Mr. Mike Wilson, my Deputy for Project Management. He can be reached at 615-736-2342. Again, thank you for taking the time to visit us at Old Hickory and I look forward to our future associations.

Sincerely,

Bernard R. Lindstrom  
Lieutenant Colonel  
Corps of Engineers  
District Engineer

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Tuesday, September 04, 2007 10:11 AM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** FW: Ag and Natural Resources Sept. Agenda

Hilda:

I hope you and Dane had a great weekend. You have a good story in today's Herald based on the media tour yesterday.

I don't think we've talked about this meeting next week and wanted to make sure you were in the loop. We'll talk later.

Barry

-----Original Message-----

**From:** Kinman, Carolyn (LRC) [mailto:carolyn.kinman@lrc.ky.gov]  
**Sent:** Tuesday, September 04, 2007 9:07 AM  
**To:** Barry Mayfield  
**Subject:** FW: Ag and Natural Resources Sept. Agenda

---

**From:** Murphy, Lindsey (LRC)  
**Sent:** Tuesday, September 04, 2007 9:03 AM  
**To:** LRC Agenda Recipients  
**Subject:** Ag and Natural Resources Sept. Agenda

**INTERIM JOINT COMMITTEE ON  
AGRICULTURE AND NATURAL RESOURCES**

**A g e n d a**

Meeting No. 3

<b>DATE:</b>	<b>Wednesday, September 12, 2007</b>
<b>TIME:</b>	<b>8:00 AM (CST)</b>
<b>PLACE:</b>	<b>Lure Lodge, Lake Cumberland State Park Near Jamestown, KY</b>

8:00 AM                      Committee Members assemble at Lure  
Lodge, Cumberland State Park, Jamestown, KY  
Convene meeting

8:00-8:30 AM              Briefing by Corps of Engineers

Welcome - LTC Bernard Lindstrom  
Construction Update - Barney Davis  
Mitigation/Economic Impact - Mike Ensich

8:30 AM                      Committee Members begin loading into vans

Briefing/comments on way to Wolf Creek Dam

8:45 AM                      Depart for Wolf Creek Dam

9:00 AM                      Arrive at Wolf Creek Dam

11:30 AM                    Depart to Lake Cumberland State Park (arrive and have lunch)

1:00 PM                      Reconvene Committee Meeting at Conference Center

## Barry Mayfield

---

**From:** Barry Mayfield  
**Int:** Thursday, September 13, 2007 9:50 AM  
**To:** 'Legg, Hilda (EPPC OOS)'  
**Subject:** RE: J. Twitchell presentation without graphics

Spoke with Coleen yesterday afternoon, and that's one of the things we'll discuss later.

-----Original Message-----

**From:** Legg, Hilda (EPPC OOS) [mailto:Hilda.Legg@ky.gov]  
**Sent:** Thursday, September 13, 2007 9:48 AM  
**To:** Barry Mayfield  
**Subject:** RE: J. Twitchell presentation without graphics

Will talk later today, thanks,  
Kathy is sending an email to you and KIA to try to set up mtg for  
Monday, I should have gotten this done before I left for TX, but.....  
Hilda

-----Original Message-----

**From:** Barry Mayfield [mailto:barry.mayfield@ekpc.coop]  
**Sent:** Thursday, September 13, 2007 9:44 AM  
**To:** Legg, Hilda (EPPC OOS)  
**Subject:** FW: J. Twitchell presentation without graphics

Hilda:

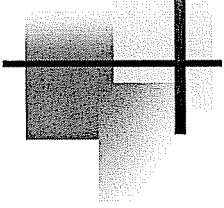
Welcome back home. Yesterday's Interim Joint Ag and Natural Resources  
meeting went very well. Couple of things to update you on when you have  
chance to call.

Attached is John Twitchell's presentation (without two graphics) printed  
and distributed to committee members. He did not actually give all of  
this because Bob Amato's presentation covered much of the same.

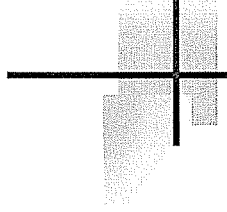
Barry

>  
>  
>  
> > <<JTwitchell presentation to Ag Committee\_NO PICS\_0913071.ppt>>

# LOW WATER MITIGATION PLAN COOPER POWER STATION

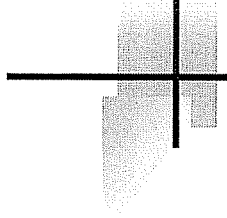


JOHN TWITCHELL, PE  
September 12, 2007



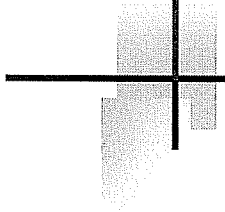
# Low Water Mitigation Plan

- Wolf Creek Dam Requires Repair
- COE Has Lowered Lake Cumberland to 680'
- COE Advised Lake Users to be Prepared for 650' at End of December, 2007
- Adverse Impacts to EKPC and Transmission Grid



# Worst-Case Scenario

- Cooper Station shuts down
- Possible rotating blackouts
  - More than 250,000 people and hundreds of businesses in 9 counties
  - Would affect customers of other utilities
- \$71 million in annual replacement power costs to all EKPC members
- Public health and safety threatened
- Significant economic impact



# Low Water Mitigation Plan

- Recommendation (Approved by PSC)
  - ❖ Cooling Tower on Unit No. 2, Barge Mounted Pumps on Unit No. 1
  - ❖ Supplemental Supply System for Summer of 2007
  
- Implementation
  - ❖ Install Supplemental System
  - ❖ Integrate into Unit No. 1 Pumps
  - ❖ Phase in Unit No. 2 Cooling Tower to Minimize Capital Expense





# Costs To Members

---

- ❖ Replacement of hydro power from Wolf Creek Dam
  - ❖ \$13.5 million annually
- ❖ Replacement of coal-fired power due to de-rating of Cooper units
  - ❖ \$1.8 million in June
  - ❖ \$570,000 in July
  - ❖ \$1.5 million in August
- ❖ Low water mitigation plan
  - ❖ Pumps, barges, associated equipment
  - ❖ \$14.7 million

# Future Costs To Members

---

- Low water mitigation plan, future (depends on Corps decision)
  - ❖ Cooling tower, additional equipment
  - ❖ \$9.3 million
- EKPC's share of \$309 million in dam repair costs
- Other unknown costs

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Friday, September 14, 2007 2:45 PM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** FW: Cooper Station Order

FYI

Barry

-----Original Message-----

**From:** Charles Lile  
**Sent:** Friday, September 14, 2007 2:37 PM  
**To:** David Smart; John Twitchell; Jerry Purvis; Barry Mayfield; Bob Marshall  
**Subject:** Cooper Station Order

Charles A. Lile  
EKPC Legal  
859 745-9380  
charles.lile@ekpc.coop



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df

## Barry Mayfield

---

**From:** Barry Mayfield  
**Sent:** Friday, September 14, 2007 2:45 PM  
**To:** 'Hilda.Legg@ky.gov'  
**Subject:** FW: Cooper Station Data Request

FYI

Barry

-----Original Message-----

**From:** Charles Lile  
**Sent:** Friday, September 14, 2007 2:38 PM  
**To:** David Smart; John Twitchell; Jerry Purvis; Barry Mayfield; Bob Marshall  
**Subject:** Cooper Station Data Request

Charles A. Lile  
EKPC Legal  
859 745-9380  
charles.lile@ekpc.coop



200700168\_14\_2.p  
df

## Barry Mayfield

---

**From:** Barry Mayfield  
**Content:** Monday, September 17, 2007 9:00 AM  
**Content:** 'Legg, Hilda (EPPC OOS)'  
**Subject:** RE: Expect coverage: PSC re-opens case on Cooper modifications

Just call my cell when you decide on a time. After 1 p.m., I'm flexible for the rest of the day.

-----Original Message-----

From: Legg, Hilda (EPPC OOS) [mailto:Hilda.Legg@ky.gov]  
Sent: Monday, September 17, 2007 8:46 AM  
To: Barry Mayfield  
Subject: RE: Expect coverage: PSC re-opens case on Cooper modifications

Yes, lets do. I am trying to work a couple of other mtgs in as well, but definitely we will do it

-----Original Message-----

From: Barry Mayfield [mailto:barry.mayfield@ekpc.coop]  
Sent: Monday, September 17, 2007 8:36 AM  
To: Legg, Hilda (EPPC OOS)  
Subject: FW: Expect coverage: PSC re-opens case on Cooper modifications  
Importance: High

Hilda,

I will be attending a meeting in Frankfort from 11 a.m. - 1 p.m. today. Even if we are not able to meet with KIA today, and if you're going to be in Frankfort, also, is it possible for us to meet there? And if so, what time best suits your schedule?

Barry

> -----Original Message-----

> From: Nick Comer  
> Sent: Saturday, September 15, 2007 10:00 AM  
> To: Nick Comer; John Twitchell; Barry Mayfield; David Smart; David Eames; Kevin Osbourn; Stacy Barker; Jim Lamb; Bob Marshall  
> Subject: RE: Expect coverage: PSC re-opens case on Cooper modifications  
>  
> Here is the article from today's Herald-Leader:  
>  
> PSC questions E. Kentucky Power plans  
> CHANGES AT PLANT BEING DELAYED  
> By Scott Sloan  
> SSLOAN@HERALD-LEADER.COM <mailto:SSLOAN@HERALD-LEADER.COM> The state  
> Public Service Commission yesterday questioned East Kentucky Power's  
> plans at a plant near Lake Cumberland after it learned the cooperative  
> intends to delay some of its changes.  
> The commission swiftly approved the plans for the Cooper Station plant  
> earlier this year to help the co-operative prepare for lower levels of  
> Lake Cumberland. The plant draws water from the lake for cooling while  
> it generates electricity.  
> The U.S. Army Corps of Engineers has lowered the lake level to 680  
> feet to ease pressure on Wolf Creek Dam, which has leaks.  
> The Cooper Station plant can still draw water from the lake at that  
> level, but could not if the level were to fall below 673 feet.  
> East Kentucky Power had told the commission it would spend \$24 million  
> to build seven barge-mounted water pumps at the site, as well as a  
> cooling tower.

> By installing the devices, it could take in water from the lake at a level of as low as 650 feet above sea level.

> The Corps announced in late July that it intends to keep the lake at 680 feet in 2008.

After the announcement, East Kentucky Power chose to hold off completion of the cooling tower.

> "We are still moving forward with the cooling tower. The only thing that we have stopped is the physical erection of the tower," CEO Bob Marshall told the Herald-Leader last week.

> He said the concrete base is still being built, and the time needed to install the tower would be up to three months.

> "The reason we put it on hold is we still have time," he said. "Obviously, if we don't have to erect that cooling tower, we don't want to."

> Marshall noted that the cooperative can run the plant in winter without any danger because water is typically cooler.

> "We actually don't have to physically have that tower erected until May," he said.

> But that delay has drawn questions from PSC Chairman Mark David Goss. > Given the commission's quick approval of the plans, Goss "expressed some concern ... or perhaps puzzlement at the fact that now the utility was seemingly not going to proceed with as much vigor to complete the project," said PSC spokesman Andrew Melnykovich.

> In reopening the case, the commission wrote that East Kentucky Power also intends to add another pump. The PSC set a hearing for Oct. 4 on the case.

> It has asked East Kentucky Power to answer a number of questions, including projections on how much replacement power would need to be purchased if the tower is not operational by May.

> Read a copy of the Public Service Commission's order about the Cooper Station plans.

>

-----Original Message-----

> From: Nick Comer

> Sent: Friday, September 14, 2007 4:56 PM

> To: John Twitchell; Barry Mayfield; David Smart; David Eames; Kevin Osbourn; Stacy Barker; Jim Lamb; Bob Marshall

> Subject: Expect coverage: PSC re-opens case on Cooper modifications

>

> I received a call from Scott Sloan, a reporter for the Herald-Leader, regarding this afternoon's PSC order re-opening the case on the Cooper modifications.

> I explained that EKPC is on track with its plans to protect Cooper Station from any disruptions related to the lowering of Lake Cumberland, and the PSC hearing will be an opportunity for EKPC to demonstrate to the commission that we are on track. It is a top priority for EKPC to ensure that Cooper Station remains operational. > I explained that EKPC will have sufficient facilities in place by the end of December to ensure the plant remains operational through the winter, even if the lake is lowered. In particular, the deployment of the eight barge-mounted pumps will provide the capacity to meet the plant's maximum winter water needs.

> This will allow EKPC to delay the erection of the cooling tower for several months. EKPC has constructed the concrete basin for the cooling tower, has the materials on site and has awarded the contract for the work.

> At this point, EKPC is evaluating when it will be necessary to erect the cooling tower.

> Sloan said he had been in touch with Paul Wesslund regarding an upcoming article in Kentucky Living with comments from Chairman Goss about the EKPC's plans for the cooling tower. Wesslund informed Sloan that the article would not include the chairman's comments, so Sloan got in touch with the PSC's media spokesman, who said Chairman Goss is "puzzled and concerned" that EKPC might be "backing away" from its plans

to construct the cooling tower.

> I reiterated that EKPC's top priority is ensuring that Cooper Station remains operational, and we are also balancing the cost to our members. EKPC has taken steps to ensure continued operations through the winter and has everything in place to proceed quickly with erecting the tower.

∴ the Corps changes its recommendations to water users, then EKPC would consult with the PSC on how to proceed. The Corps has told EKPC to be prepared by the end of the year for lake elevations as low as 650 feet and we are proceeding with those preparations.

> Nick

## Barry Mayfield

---

**From:** Barry Mayfield  
**Content:** Monday, September 17, 2007 9:32 PM  
**Content:** Thomas, Tim (KIA); Legg, Hilda (EPPC OOS)  
**Subject:** RE:

Tim:

Thank you for your careful and thorough consideration of our request. I appreciate your taking time to personally update me this afternoon.

Barry

-----Original Message-----

**From:** Thomas, Tim (KIA) [mailto:Tim.Thomas@ky.gov]  
**Sent:** Mon 9/17/2007 12:43 PM  
**To:** Legg, Hilda (EPPC OOS)  
**Cc:** Barry Mayfield  
**Subject:** RE:

2:15 will work. We are located with the GOLD offices, 1024 Capital Center Dr., 3rd Floor. This is just off of Versailles Road. (behind Jeff Sachs auto dealership)

-----Original Message-----

**From:** Legg, Hilda (EPPC OOS)  
**Sent:** Monday, September 17, 2007 10:01 AM  
**To:** Thomas, Tim (KIA)  
**Cc:** Barry Mayfield  
**Subject:** RE:

Lets shott for 2:15, will that work for both of you? At Tim's ofc, KIA

-----Original Message-----

**From:** Thomas, Tim (KIA)  
**Sent:** Monday, September 17, 2007 9:47 AM  
**To:** Legg, Hilda (EPPC OOS)  
**Subject:** Re:

Hilda. Start anytime before 4 will be fine. I do need to leave pretty close to 4:30 today due to a personal appointment.

Thanks  
Tim Thomas

----- Original Message -----

**From:** Legg, Hilda (EPPC OOS)  
**To:** Thomas, Tim (KIA)  
**Sent:** Mon Sep 17 09:04:56 2007  
**Subject:**

Tim: Just got off the phone with Colleen, I think since we have a tentative this afternoon with Barry Mayfield at EKPC we should go ahead and give him the bad news, What time between 2 and 4:30 works for you best? Thanks, Hilda

Hilda Gay Legg  
Executive Director  
Governor's Office of Interagency Services Lake Cumberland Region Wolf Creek Dam Project  
Phone: 606/677-6125



Fax: 606-677-1081  
Cell: 606/545-3090  
hilda.legg@ky.gov

**GOVERNOR'S OFFICE FOR LOCAL DEVELOPMENT**

The following briefing material was used in meetings with the Governor's Office for Local Development and local community leaders in April and May 2007.

*Memorandum  
for Local Development*

## **EKPC EXECUTIVE SUMMARY – WOLF CREEK DAM CRISIS**

### **EKPC BACKGROUND**

East Kentucky Power Cooperative, based in Winchester, is the Commonwealth's second largest provider of electricity and is recognized as a leader in clean-coal technology, renewable energy and environmental stewardship.

Through its network of 16 member cooperatives, EKPC serves more than 850,000 consumers and more than 30,000 commercial accounts across Kentucky. All member systems are not-for-profit, owned by their consumers, and strongly committed to local communities.

As of December 2006, EKPC and its member systems serve:

- 472,074 residential accounts, including homes, farms, barns, churches and other uses (totaling more than 850,000 electric consumers)
- 30,732 commercial and industrial accounts
- All or part of 87 Kentucky counties (see map, attachment 1)

EKPC provides power through coal-fired plants in Clark, Mason and Pulaski counties, along with gas peaking units in Clark County, hydroelectric power through the Wolf Creek, Laurel and Greenup dams, five landfill gas plants and more than 2,800 miles of transmission lines.

In addition, EKPC is in the middle of a \$2.1 billion campaign to build three new clean-coal units, two gas-fired peaking units, two scrubbers to significantly reduce emissions and accompanying transmission lines.

This ambitious plan, in order to meet strong rural growth, is being accomplished without any government incentives or state financial assistance.

The benefit for Kentucky, however, is substantial.

These additional facilities will bring more than \$44 million in state property taxes over the next 20 years, create hundreds of construction jobs, open the door for new coal markets and pump more than \$2.4 million in payroll taxes into local communities.

And, they will create homegrown electricity for Kentucky families and businesses.

### **WOLF CREEK CRISIS**

The looming crisis at Wolf Creek Dam has triggered some far-reaching and unexpected consequences at East Kentucky Power Cooperative's John Sherman Cooper Station in Pulaski County.

Cooper Station, located on the banks of Lake Cumberland near Somerset, features two coal-fired generating units that together produce 341 megawatts of electricity – supplying enough electricity for about 200,000 Kentucky residential consumers.

Cooper burns about 832,000 tons of coal each year; 83 percent of that coal comes from Kentucky. The plant also withdraws up to 155,000 gallons of water per minute from Lake Cumberland to produce steam for electricity, and to cool the equipment.

The emergency stems from Cooper's need to withdraw water from Lake Cumberland. Its intake facilities were not designed or built to handle lake levels below 673 feet. Normally, the lake is about 723 feet.

But the U.S. Army Corps of Engineers has lowered Lake Cumberland to 680 feet to perform critical repairs to Wolf Creek Dam. In February, the Corps warned all water users to prepare for a lake level of 650 feet by the end of the year (see letter, attachment 2).

If that happens – without any corrective action to modify the plant – Cooper Station will be forced to stop generating electricity.

The result could lead to blackouts in nine South-Central counties, affecting more than 250,000 people and hundreds of businesses no matter who supplies their power.

### **COMMUNITY IMPACTS**

If Cooper Station shuts down, the impact on public health and safety will be dramatic.

Much of the transmission system in the Cumberland region has been designed and built around Cooper Station. Without that electricity to stabilize the grid, the regional transmission system would be extremely vulnerable to overloads, blackouts and outages.

So far, nine counties have been identified as at-risk for significant impacts: Adair, Casey, Clay, Jackson, Laurel, McCreary, Pulaski, Russell and Wayne.

It's important to note that outages would not be limited to co-op customers in those areas.

Because of the interconnected grid, area customers who get their power from Kentucky Utilities (KU) and the Tennessee Valley Authority (TVA) also would be affected.

What would this mean for Kentucky homes and businesses in those areas?

**Critical services such as hospitals, fire stations and water treatment facilities could be suddenly left in the dark.**

- To avoid widespread damage, utilities would have to shut down power lines and substations – called “load shedding” – to avoid cascading blackouts and widespread damage to the grid.
- This could result in controlled, rotating blackouts in affected areas.
- Many emergency and early warning systems – radios, sirens – need electricity to function. Any loss of power could threaten public safety if the dam failed.

**Along with the threat of blackouts, consumers in three-fourths of Kentucky’s counties – many of whom are on fixed incomes – could see additional increases in their monthly electric bills due to the exorbitant cost of replacement power.**

- The current low lake levels might force EKPC to reduce generation at Cooper this summer because the water temperature could get too hot to use. If that happens, it will cost about \$8.5 million to replace that lost power. The average increase on a household bill would be \$2.10 a month from June through September (about \$8.40 for the summer).
- If Cooper Station is forced to shut down for the rest of the year, EKPC projects the cost of replacing power would be \$41 million for the remainder of 2007. The average increase on a household bill would be about \$5 a month through the end of the year (\$40 total for the remainder of the year).
- If Cooper Station were offline next year, the cost of replacement power would be \$71 million. The average increase on a household bill would be about \$5.85 a month (\$70 a year in 2008, and more for each year forward).
- **Costs would be spread among all EKPC electric consumers, not just those in the affected areas. In other words, more than 500,000 Kentucky homes, farms and businesses would see significantly higher bills.**
- EKPC customers *already are paying an estimated \$13.5 million more a year* to replace lost hydroelectric power from Wolf Creek Dam. That cheaper electricity was used in “peak” times – the hottest and coldest days of the year, usually when the power market prices are higher. The average annual increase on a household bill is \$1.15 a month (about \$13.80 a year), which will continue for years until repairs at Wolf Creek Dam are completed.
- Plus, when the estimated \$300 million repairs are completed at the Wolf Creek Dam, EKPC and others will be responsible for repaying the federal government for a portion of that total cost. Though it will be amortized over the life of the project, it will result in an increase in the price of hydropower.
- These added costs come at a time when energy prices are increasing across the board. EKPC is seeking its first base rate increase since 1983; consumer bills

have been steadily rising the past few years due to higher costs for fuel and environmental compliance (see attachment 3).

**The economic impact on businesses would be alarming since they use more electricity than households, and the region's ability to attract new jobs and industry would suffer.**

- Just like homeowners, companies would see higher electric bills, which would raise the cost of doing business and threaten operations.
- In the worst case, companies might be forced to lay off workers, scale back production, relocate outside the area or even shut their doors.
- With a 7-year timeframe to fix the dam, companies looking to locate in South-Central Kentucky might go elsewhere because of the threat of higher rates and unreliable electricity.
- EKPC's member cooperatives serve more than 600 commercial and industrial accounts in those nine counties that use at least 50 kW of electricity. This includes everything from small factories and large restaurants to shopping centers, big-box stores and major industries. All would face higher rates and reliability issues with electrical service.
- Since higher costs would be spread among **all** EKPC customers, more than 30,000 commercial accounts throughout the 87 counties would see increases in monthly bills. That includes everything from grocery stores and beauty shops to steel manufacturers, distillers, paper companies and corporate headquarters.
- For example: a large processing plant uses a significant amount of electricity each month. Under these scenarios, the impact on its average monthly electric bill would be tremendous.

SCENARIO	ESTIMATED MONTHLY INCREASE
Cooper backs off generation by half this summer	\$5,400 per month, June-September
Cooper shuts down for rest of 2007	\$13,000 per month, rest of the year
Cooper shuts down for all of 2008	\$15,000 per month

- In addition, this large processing plant already is paying an annual average increase of \$3,000 per month to replace the hydroelectric peaking power lost at Wolf Creek Dam. Again, these charges will be passed through the monthly fuel adjustment clause on customer bills as long as the Wolf Creek hydroelectric facility is not fully operating – which could be years.

**PREFERRED SOLUTION**

EKPC retained Stanley Consultants, the original designer of Cooper Station, to evaluate alternative methods of providing cooling water if the lake is lowered to 650 feet, as warned by the U.S. Army Corps of Engineers.

Stanley outlined six alternatives, and EKPC chose a “hybrid” solution that will protect Cooper at 650 feet; can be implemented in time to meet the Corps’ deadline of December 31, 2007; and would minimize costs while increasing flexibility (see attachment 4).

The preferred plan has been approved by EKPC’s Board of Directors and submitted to the Kentucky Public Service Commission for expedited consideration of a Certificate of Public Convenience and Necessity. The plan includes two phases:

- Phase I, for immediate action, integrates barge-mounted pumps into the existing water intake structures to supplement them for the rest of the year. This will allow full operation at Cooper. Preliminary work also will begin on a proposed cooling tower, a device that removes heat from the water and releases it into the air by evaporation (see attachment 5). Cost of Phase I is \$10 million.
- Phase II, to be implemented later this year, will include the construction of the cooling tower and additional barge-mounted pumps in preparation for lake levels of 650 feet. Cost of Phase II is \$14 million, for a total of \$24 million.

<b>PHASE I TASK</b>	<b>COST</b>
Engineering services to design plan	\$1,000,000
Purchase supplemental pumps for summer use	\$1,000,000
Cooling tower preliminary foundation work	\$100,000
Install supplemental pumps on barges for summer use	\$1,300,000
Construct cooling tower foundation	\$1,600,000
Purchase materials for cooling tower	\$5,000,000
<b>TOTAL</b>	<b>\$10,000,000</b>
<b>PHASE II TASK</b>	<b>COST</b>
Erect cooling tower	\$3,500,000
Tie cooling tower to condenser with 80-inch concrete pipe	\$2,600,000
Install all electrical equipment and controls	\$5,000,000
Purchase additional pumps (if lake is lowered to 650 feet)	\$1,500,000
Receive additional pumps	
Cooling tower commissioning - start-up and check-up	\$150,000
Install additional pumps and barges (if lake is lowered to 650 feet)	\$1,250,000
<b>TOTAL</b>	<b>\$14,000,000</b>



As described in the PSC filing, EKPC will continue to monitor the success of repair activities at Wolf Creek Dam and, in consultation with the Corps of Engineers, could revise installation of the proposed facilities if necessary.

Also in the filing, EKPC said it plans to seek long-term financing for the project through the Rural Utilities Service. EKPC also has been discussing financial assistance with state and federal officials.

EKPC continues to evaluate the best way to pay for the \$24 million in emergency construction with the least impact on its member-owners. At some point, EKPC will seek rate relief at the PSC, as discussed in the May 1 editions of the Somerset *Commonwealth Journal* and the *Lexington Herald-Leader* (see attachment 6).

Increases would vary depending on the time to recover the money. If EKPC seeks to recover the money in five years, an average homeowner bill would increase about 60 cents a month (about \$7.20 a year).

At seven years – the estimated time to repair the dam – the cost would be about 50 cents a month (\$6 a year). At 10 years, it would cost about 40 cents a month (\$4.80 a year).

Again, as discussed earlier, commercial and industrial users would see higher bills than homeowners because they use more electricity.

### CONCLUSION

The loss of Cooper Station would have a devastating effect on public health and safety, and would put Kentucky families and businesses at-risk for widespread power outages and increased electric bills.

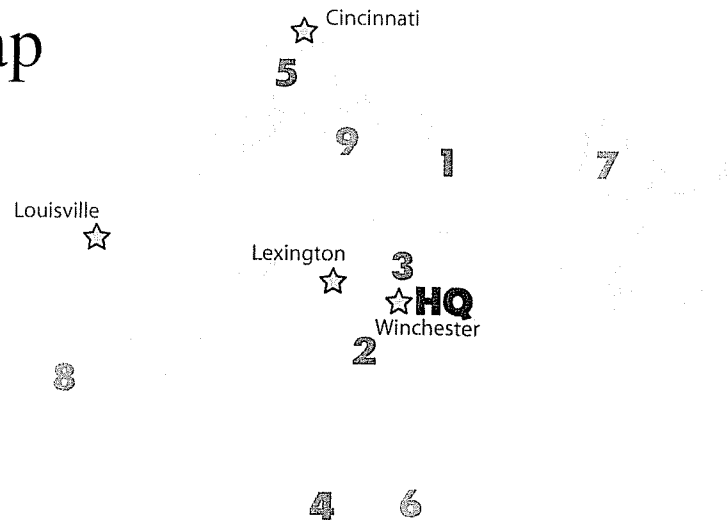
As a preventative measure, EKPC has developed a common-sense solution that will protect Cooper Station, meet the Corps of Engineers deadline for lower lake levels, and minimize the financial impact on electric consumers.

The action plan, if approved by the Public Service Commission, involves a significant capital investment of more than \$24 million and annual operating and maintenance costs of approximately \$2.4 million.

It will increase monthly electric bills across the board when EKPC seeks to recover those costs. As the Commonwealth's second largest provider of electricity, the impact would be felt among more than 500,000 Kentucky homes, farms and businesses.

EKPC continues to seek financial assistance from the state and federal government, which would help lessen the blow to Kentucky consumers who already are paying their share of this crisis.

# Power Generation Map



EKPC Service Territory

## EAST KENTUCKY POWER GENERATION

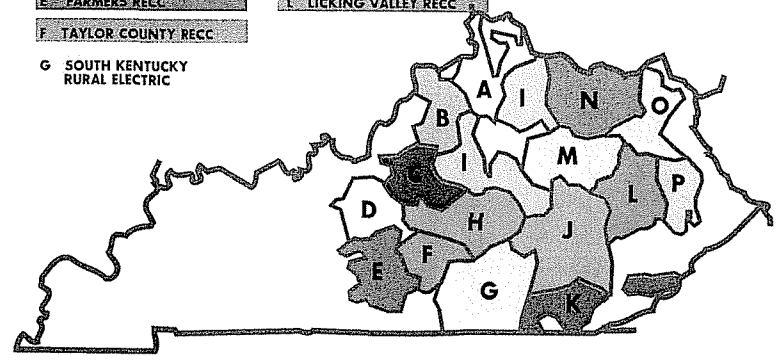

<b>1</b>	Spurlock	850 net MW	<b>5</b>	Bavarian	3.2 megawatts
<b>2</b>	Dale	196 net MW	<b>6</b>	Laurel Ridge	3.2 megawatts
<b>3</b>	Smith	Summer	<b>7</b>	Green Valley	2.4 megawatts
	Combustion	478 net MW	<b>8</b>	Pearl Hollow	2.4 megawatts
	Turbine	Winter	<b>9</b>	Pendleton	3.2 megawatts
	Units	646 net MW			
<b>4</b>	Cooper	341 net MW			


Southeastern  
Power Adm. (SEPA),  
hydro power 170 MW

shows system wide service area

# Member Distribution Systems

- A OWEN ELECTRIC
- B SHELBY ENERGY
- C SEARLE VALLEY ELECTRIC
- D NOLIN RECC
- E FARMERS RECC
- F TAYLOR COUNTY RECC
- G SOUTH KENTUCKY RURAL ELECTRIC
- H INTER-COUNTY ENERGY
- I BLUE GRASS ENERGY
- J JACKSON ENERGY
- K CUMBERLAND VALLEY
- L LICKING VALLEY RECC
- M CLARK ENERGY
- N FLEMING-MASON ENERGY
- O GRAYSON RECC
- P BIG SANDY RECC

**EAST KENTUCKY POWER COOPERATIVE**  
A Touchstone Energy Cooperative 



DEPARTMENT OF THE ARMY  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 1070  
NASHVILLE, TENNESSEE 37202-1070

FEB 03 2007

IN REPLY REFER TO

Engineering-Construction Division

Mr. Jerry Purvis  
East Kentucky Power Cooperative  
P.O. Box 38  
Burnside, KY 42519

Dear Mr. Purvis:

Our records show that the Eastern Kentucky Power Cooperative has a water supply intake on Lake Cumberland with the intake at an elevation of 670 feet National Geodetic Vertical datum of 1929 (NGVD 1929). This letter serves as formal notification that the U.S. Army Corps of Engineers, Nashville District, is modifying pool operations at Lake Cumberland in order to respond to seepage problems at Wolf Creek Dam. The Nashville District will target Lake Cumberland at elevation 680 feet NGVD29 for at least the remainder of this year, unless conditions in the dam change significantly.

We are taking emergency measures to reduce the risk of failure at Wolf Creek Dam. Public safety is the Corps' paramount concern. Seepage under the dam's foundation threatens the structural integrity of the project. Lowering the lake will reduce the pressure on the dam's foundation. We are currently placing grout in the most critical sections of the dam. Trained engineers and construction specialists will continually monitor the ongoing construction effort.

Based on conditions at the project, a possibility always exists that we may lower the pool even more. Because of this real possibility, you need to take necessary measures to allow for water intake with the lake at Elevation 650 feet NGVD29. We recommend that these measures be in place no later than 31 December 2007.

We do not anticipate any significant time delays in processing Section 10 or Section 404 permits for these extensions. We will use all appropriate means to expedite issuance of a permit. If possible, modification of the existing permit or use of Nationwide Permit #12, Utility Lines, may be one course of action. Please contact Mr. Craig Shoe, the Resource Manager for Lake Cumberland, at (606) 679-6337, as soon as practical to discuss particular issues.

We are cognizant of the effort that this requires and we hope that we will not have to be in a position to lower the pool any further; however, this is a real possibility. Please address any questions to the Project Manager, Mr. David Hendrix, at 615-736-7841.

Sincerely,



Steven J. Roemhildt, P.E.  
Lieutenant Colonel  
Corps of Engineers  
District Engineer

## **EKPC'S COSTS TO PRODUCE POWER ARE RISING WOLF CREEK REPAIRS WILL ADD TO THE BILL**

Higher costs for coal and natural gas. Additional equipment to meet stringent clean air requirements. New power plants and transmission facilities to serve our growing rural communities.

All these things, and more, are increasing costs for electric utilities across the country. East Kentucky Power Cooperative has seen its costs to produce power steadily rise the past few years – and these increased costs are often passed to our rural customers:

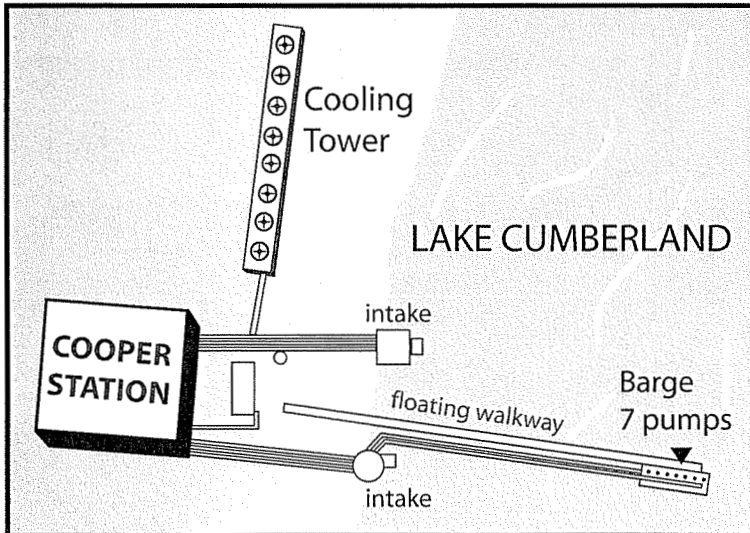
- In June 2005, EKPC became one of the last utilities in the Commonwealth to implement an “environmental surcharge” on customer bills that allows us to pass through certain costs to comply with tighter clean air requirements, upon approval by the state Public Service Commission. **It initially averaged about \$4.65 a month on an average household bill; today it's about \$5.40 per month.**
- Fuel costs (coal, natural gas, purchased power) have more than doubled over the last 10 years. These costs are listed on monthly customer bills through the “fuel adjustment clause.” **An average residential bill today is nearly \$15 more than in 1997 because of increased fuel costs.**
- In order to serve our growing number of customers reliably, EKPC is incurring additional debt to build **more than \$2 billion** in new clean-coal power plants, facilities for environmental compliance and electric transmission lines.
- EKPC also is seeking its first increase in base rates since 1983 – the amount charged for power to our 16 member systems. **The impact on customer bills will be about \$3 to \$5 a month**, if approved by the PSC later this fall.

### **The looming crisis at Wolf Creek Dam is only adding to our costs.**

Without financial help from state or federal government, the 500,000 Kentucky families and businesses served by EKPC through our 16 member systems will pay the full price to deal with this emergency.

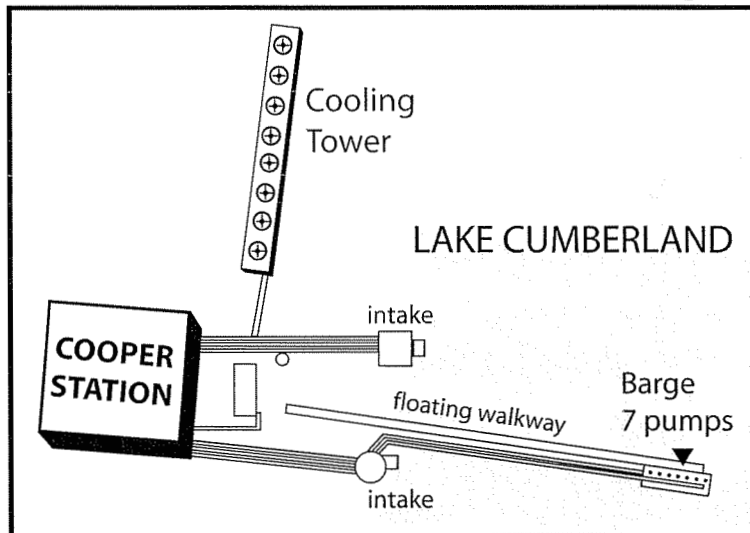
- Up to \$24 million in capital costs at Cooper Station to meet lower lake levels, which the Army Corps of Engineers has warned could happen by December 2007
- Another \$13.5 million a year *already being paid by our customers* to replace the cheap hydroelectric “peaking” power that was generated at Wolf Creek Dam
- At least \$50 million a year in high-priced market power to replace the lost coal-fired electricity if Cooper Station is forced to shut down or back off production

# KEEPING THE POWER ON



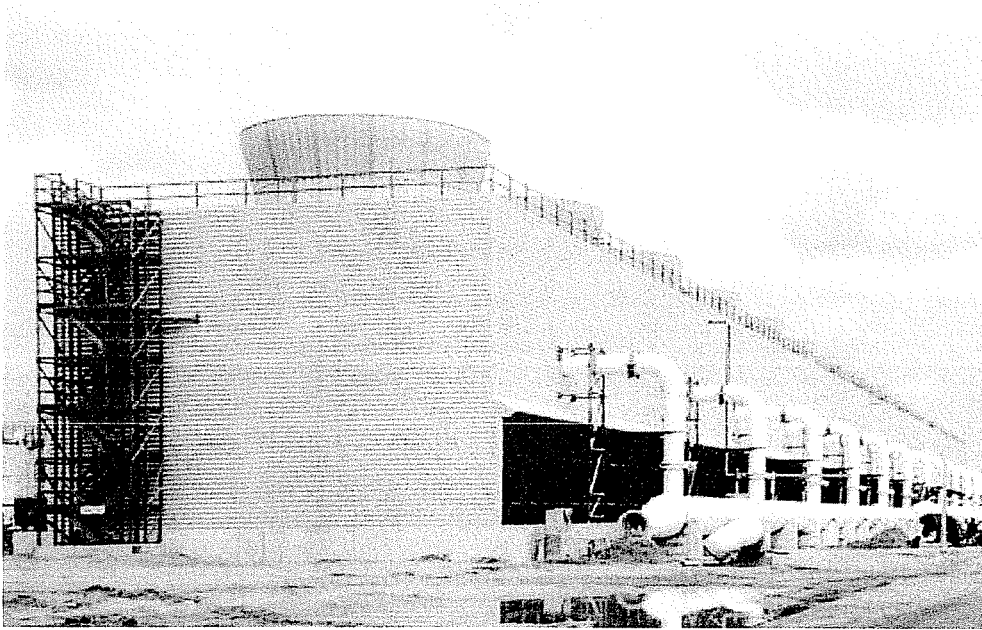
East Kentucky Power Cooperative is seeking state approval of a \$24 million plan to ensure that Cooper Station remains in operation despite lower Lake Cumberland levels. The plan includes construction of a cooling tower and deploying supplemental water pumps.

# KEEPING THE POWER ON



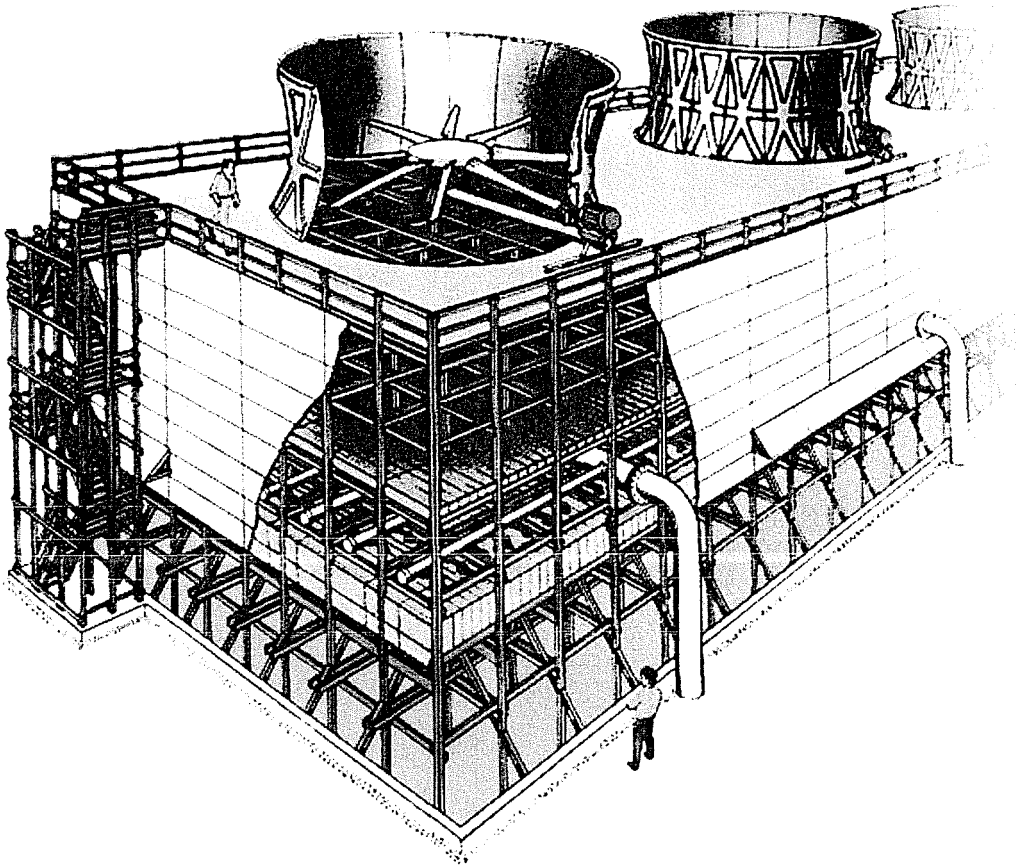
East Kentucky Power Cooperative is seeking state approval of a \$24 million plan to ensure that Cooper Station remains in operation despite lower Lake Cumberland levels. The plan includes construction of a cooling tower and deploying supplemental water pum

*/ Marley Class W400 Cooling Tower /*



**SPX Cooling Technologies**

Balcke | Hamon Dry Cooling | Marley



## */ Marley Class W400 Cooling Tower /*

**Wood Structure** Designed in accordance with the National Design Specification for Wood Construction (NDS).

**Counterflow Design** Allows maximum thermal performance capability per unit of plan area. Minimizes pump head requirements.

**FRP Casing** Inert, corrugated fiberglass casing provides a long lasting pleasing appearance.

**PVC Film Type Fill** Maximum thermal performance per cubic foot of fill. Corrugated construction provides years of reliable service. Immune to corrosion and decay.

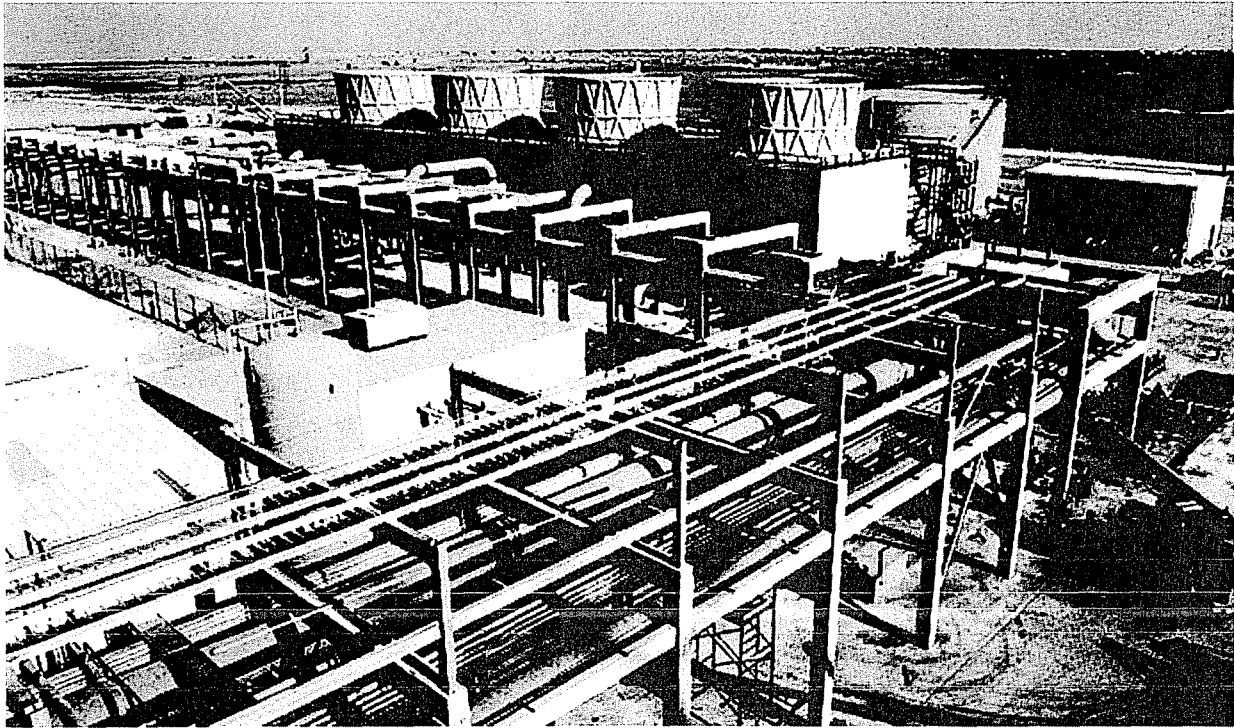
**Induced Draft** Locates fan and mechanical equipment in warm airstream to simplify winter operation. Minimizes the effects on performance by exhaust air recirculation.

**Factory Fabricated, Field Erected** Minimizes cost impact of jobsite labor. Assures accurate parts fabrication in conformance with design, and efficient erection according to a predictable schedule.

**Cellular** Permits maximum operator control under varying conditions of load and ambient weather. Variety of components and structural possibilities permits optimization to meet the required thermal performance conditions.

**Heavy Duty Construction** All wood is pressure treated after fabrication. All fabricated steel components are hot dip galvanized or stainless steel. Extensive use of inert plastics for structural and non structural components. Designed for heavy industrial use with long service life.





### */ The Marley Difference /*

Because we design and manufacture virtually all the components of the Class W400 cooling tower, you'll benefit from single source responsibility and reliability.

All components are designed and selected to be a part of an integrated system. For example, the spray pattern from the nozzles and the pressure drop through the drift eliminators both affect the fill's heat transfer capacity. We include that impact in our thermal analysis.

The drift eliminators must be effective at the air velocities where the fill is most efficient. We've carefully designed both components to work together efficiently.

How many other cooling tower companies can offer you this assurance? They may use one brand of nozzles with another brand of fill and a third brand of drift eliminators. When they all come together, the whole may be less than the sum of the parts.

Our total system design approach assures that all the parts work together to provide you the greatest total performance.

And because we design specifically for cooling tower applications, all of our components will provide many years of service with minimal maintenance.

### */ Design Flexibility /*

Class W400 cooling towers are available in numerous basic cell sizes. Length and width may vary in 6'-0" increments. Tower height, fill height and fill density are also variable.

Within each cell size, several aspects of the basic design can change. Variations in fan type, size, and applied horsepower; fan cylinder height and shape; drift eliminator type and density; and water distribution type, elevation, and operating pressure will all affect operating economy.

Therefore, the designer can choose from numerous possible component combinations for each cell size. Several options may result in economical selections capable of the thermal performance requirements, but only one will optimally satisfy the fan horsepower, pump head, plan area, and other evaluation parameters contained in the owner's specifications.

Our design engineers review each cooling tower application to assure that the components selected will work together as efficiently as possible. Computer optimization assures maximum cooling from a given tower cell size for each set of design performance conditions.

## / Additional Services /

SPX Cooling Technologies is dedicated to satisfying the needs of our customers—needs which begin far in advance of the actual purchase of a new Marley cooling tower, and vary over the operating lifetime of the project. Here is a partial listing of the additional services offered by SPX Cooling Technologies to help you do your job most effectively:

**Application/Sizing/Layout Services**—Sales Engineers are trained to help you choose the proper type and size of cooling tower, and will guide you in its appropriate location on site. They will also help you write the specifications for its purchase. As the only manufacturer who makes all types of cooling products, SPX Cooling Technologies can offer you a wide range of options to meet your requirements.

**Construction Service**—We can supply supervision only—or a complete, experienced crew to handle construction.

**Parts Service**—We maintain a stock of spare parts specific to your Marley tower

**Maintenance Service**—In addition to providing complete instructions and continuing guidance, we will provide as much “hands on” maintenance as you require, or will recommend a local service contractor for your consideration.

**Condition Inspection Service**—From time to time, for your peace of mind, our engineers can give your tower a thorough inspection to evaluate its current condition. This usually allows you to foresee and forestall problems before they become serious.

**Reconstruction Service**—Due to operating or atmospheric conditions, or age, sooner or later your tower will be in need of repairs above and beyond those categorized as normal maintenance. Our reconstruction service can return your tower to as new condition

**Performance Improvement Service**—Systems served by cooling towers grow in response to demand for the product produced by that system. Most customers find that they could produce more product if the cooling tower could deliver colder water. Fortunately, cooling tower technology advances with time, and we can apply this increased technology to upgrade your tower’s thermal performance.

**Tower Replacement Service**—Occasionally, customers will benefit from replacing an installed tower, rather than refurbishing it. SPX Cooling Technologies stands ready to assist you in that endeavor—and, in most cases, the replacement will require little or no change to your concrete basin or support structure.

**SPX Cooling Technologies**

Balcke | Hamon Dry Cooling | Marley

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/ 7401 W 129 Street // Overland Park, KS USA 66213 // +1 913 664 7400 // [www.spxcolling.com](http://www.spxcolling.com) /

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CL400-05

## **5-1-07 Cooper Plant has plan to stay operational COMMONWEALTH JOURNAL**

EKPC has sent plan to PSC for approval

By BILL MARDIS Editor Emeritus  
Commonwealth Journal

East Kentucky Power Cooperative (EKPC) is seeking Kentucky Public Service Commission approval of a plan to ensure continued operation of John Sherman Cooper Power Station in case Lake Cumberland is lowered below its current level.

Kevin Osbourn, spokesman for the Winchester-based electric wholesaler, said EKPC on Friday filed an application with the Public Service Commission for a Certificate of Public Convenience and Necessity. The request is for a tower and supplemental pumps to cool the two coal-fired electric generators at the Burnside power plant.

Approval of a Certificate of Need is required as the first step for EKPC to begin construction and to seek rate relief for the project at a later date, Osbourn explained.

Estimated cost of the plan is \$24 million. Osbourn said at this point EKPC doesn't know what size rate increase will be needed to pay for the emergency construction.

He called continued operation of Cooper Power Station " ... an emergency ... a public health and safety issue. We need plans to deal with the situation as it is," Osbourn declared.

The source of the problem is the critical situation at Wolf Creek Dam, described as highly likely to fail. The U.S. Army Corps of Engineers in January lowered the lake 43 feet below summer pool to ease pressure on the foundation of the dam. Last week, a panel of outside experts said the dam has a high likelihood of failure and has recommended that the lake be lowered another 30-40 feet.

The two intakes that pump 150,000 gallons of water a minute to cool the two generators at Cooper Station are at the 673-foot level, or about seven feet below the current level of the lake. The Corps has directed officials of Cooper Power Station and communities along the lake, including Somerset, to extend water intake mechanisms to the 650-foot level by the end of the year in case the lake has to be taken lower. The 650-foot level would be 30 feet lower than it is now.

Osbourn called Cooper Power Station "critical" to the electric supply in the region.

"It's critical not only to EKPC but other utilities in the region because of voltage support," said Osbourn. "You can't take away that much power without causing major problems for East Kentucky and others in the region."

The two generators at Cooper Power Station produce 341 megawatts of power, enough to supply 31 cities the size of Somerset. Unit No. 1 went on line in 1965 and Unit No. 2 in 1969. The plant also employs 72 people.

"If the water goes to 673 feet ... the current intake pumps at Cooper Power Station would be sucking air," said Osbourn.

"The work will initially be funded through general funds and we hope to obtain a loan through the federal Rural Utility Service," Osbourn said. "At some level, we will seek to repay the loan through an increase in rates, but the specifics of how that will work are not known at this point," he noted. EKPC is also seeking financial assistance through the state and federal sources.

Osbourn expressed confidence that with quick Public Service Commission approval, the cooling tower and supplemental water pumps will be in place by the end of the year.

As many as seven supplement pumps could be utilized on a floating barge to supply cooling water to generator Unit No. 1. The barge, 600 feet farther out in the lake, will be connected to the current Intake No. 1 with floating plastic pipe to accommodate a changing lake level, Osbourn said.

The proposed cooling tower would be 44 feet tall, 48 feet wide and 44 feet long. The tower would be atop a concrete base like a swimming pool and would use the basically the same water over and over again. The cooling water would be pumped to the top of the tower and cascade down on plastic trays. The tower would eliminate the need for the existing second intake system, Osbourn said.

The proposed cooling system, a hybrid of several options EKPC has been considering, would use considerably less water than the current 150,000 gallons a minute. The reduction would be realized because of the "closed loop" cooling tower using the same water.

"This will solve the problem and assure that the plant will continue to operate," said Osbourn. "We are confident we have a good plan."

East Kentucky Power Cooperative is the wholesale supplier of electricity to 500,000 Kentucky homes, farms and businesses in 89 counties. It serves 16 electrical cooperatives, including South Kentucky RECC.

## **5-1-07 Changes Sought for Power Plant**

### **HERALD LEADER**

IN CASE LEVEL OF LAKE CUMBERLAND DROPS BELOW 675 FEET

By Bill Estep, The Lexington Herald-Leader, Ky.

May 1--The operator of a large power plant on Lake Cumberland wants to make \$24 million in modifications to make sure the facility can still generate electricity if the level of the lake drops substantially.

The plan calls for adding barge-mounted water pumps and a cooling tower at Cooper Station, in Pulaski County. East Kentucky Power Cooperative, which operates the plant, filed an application for the project with the state Public Service Commission yesterday.

The U.S. Army Corps of Engineers plans to keep the lake level much lower than usual this summer -- 680 feet above sea level instead of 723 feet -- to ease pressure on Wolf Creek Dam, which is leaking. The corps is making emergency repairs and will decide later this year what level to keep the lake at in 2008.

Cooper Station draws water from the lake for cooling. If the lake stays at 680 feet, East Kentucky does not anticipate any problems generating power at Cooper, said spokesman Kevin Osbourn.

However, if the water drops below 675, the plant could not generate electricity, according to a consultant's report with the application submitted yesterday. That could lead to blackouts in several southern Kentucky counties.

The corps notified East Kentucky Power that it should modify intakes at Cooper Station to be able to draw in water at a lake level of 650 feet in case the corps has to drop the lake level below 680. The corps told the cooperative it should complete the work by the end of the year.

The plan for barge-mounted pumps to get water into the plant and a cooling tower would allow Cooper to generate electricity at a lake level of 650 feet.

East Kentucky asked the PSC to expedite its application for the project. With state approval, East Kentucky can finish the new water-supply and cooling system this year, Osbourn said.

Osbourn said East Kentucky is evaluating the best way to pay for the work with the least impact on customers. It will ultimately ask the PSC for permission to recover costs through a rate increase, Osbourn said.

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**SOUTHEASTERN POWER ADMINISTRATION  
(SEPA)**



Department of Energy  
Southeastern Power Administration  
Elberton, Georgia 30635-6711

February 28, 2007

FEDERAL EXPRESS

BARRY MAYFIELD  
GOVERNMENT AFFAIRS  
EAST KENTUCKY POWER COOP  
P. O. BOX 707  
WINCHESTER, KY 40392-0707

Dear Mr. Mayfield:

RE: Interim Operational and Marketing Changes effective February 25, 2007 for the Cumberland System of Projects

This correspondence is being sent to notify you of a very serious situation which is evolving in the Cumberland System that will fundamentally affect river basin operation and result in a dramatic impact on the availability of generation from the system of projects.

The United States Corps of Engineers ("Corps") Wolf Creek Project is experiencing critical difficulties with its foundation. Wolf Creek is the largest man-made reservoir in the eastern United States, encompassing over half of the usable storage in the Cumberland System, and provides regulating flow to four downstream projects. The project is currently experiencing a foundation seepage problem resulting from the Karst limestone characteristics of the foundation material.

The situation at Wolf Creek dam has been the subject of four major reviews by the Corps in the recent past. The Seepage Control Major Rehabilitation Evaluation Report, the Screening Portfolio Risk Assessment, the Expert Panel for Peer Review of Six Dams (Peer Review), and the Risk-Based Evaluation of Potential Operating Restrictions for Lake Cumberland and Center Hill Lake have all reviewed the project and provided information relating to risk. The most recent of these reviews, the Peer Review, was completed during December, 2006. This panel, which was composed of independent, outside experts in their respective fields, recommended immediate changes to operation at Wolf Creek and considered the risk of dam failure to be one of the highest in the country.

As a result of this recommendation and the previous studies which were conducted relating to the project's condition and the conclusions of a high risk of dam failure, on January 22, 2007, the Corps announced an emergency plan and actions that would be taken to reduce imminent risk to human life, health, property, and severe economic loss. The single biggest impact of the emergency plan requires the Wolf Creek project elevation be lowered and maintained at a constant elevation of 680 feet (MSL).

The implementation of this plan has significantly affected the availability of the water storage capability in the Cumberland System. Under normal conditions the project elevation is permitted to fluctuate between the seasonally varying project guide curve of elevation 723 feet (MSL) in the summer and 700

To:

Bob Marshall  
David Smart  
Sherman Goodaster  
John Twitchell  
Jim Lusk  
Gary Crawford  
David Eames  
Julie Tucker  
Jerry Purvis

*Gary Davidson*

F Y I

BARRY

feet (MSL) in the winter. Typically, project inflows are captured during springtime or high inflow events and are released at a later period or during the summer to augment flows in the river basin. This type of regulated river basin operation utilizing the system's water storage capability is critical to reliable hydropower production.

This change to the operation of the Wolf Creek project will severely impact the operation and generation of the entire Cumberland System. Utilization of the reservoir storage capability of Wolf Creek is critical to Cumberland System power production. The lack of available storage will significantly alter timing and availability of power production at Wolf Creek and the projects directly downstream on an hourly, daily, weekly and seasonal basis.

Further complicating this situation is the fact that the operating priorities of projects on the Cumberland River System are being reprioritized by the Corps in an attempt to preserve the remaining water available in storage in the system to ensure water supply, in-stream minimum flows, and water quality concerns can be satisfied. The truly unfortunate circumstances that have developed at the Wolf Creek project will essentially impact power production in the entire Cumberland System.

On a somewhat hopeful note, the Corps has instituted an accelerated grouting program for the project with the goal of having the grout work completed in one of the most critical sections of the dam on or about April 1, 2007, and a second critical area by fall of 2007. Based on the results of the grouting program and the analysis of project conditions, a revision to this new operating plan may be warranted. The project will be continuously monitored during this time period and if the situation changes or if other conditions develop, further actions may be necessary.

Unfortunately, in light of the circumstances with respect to the generating capability of the Cumberland System of projects, I must inform you that Southeastern Power Administration will be unable to fulfill all of the obligations as initially contemplated under the *Amended and Restated Agreement among the Southeastern Power Administration, the Tennessee Valley Authority, and the Tennessee Valley Public Power Association*, Contract No. 89-00-1501-1129, executed 9-15-97, and in accordance with the terms and conditions of the stated contract, notice is given that Southeastern hereby invokes the provisions of *Section 19, Uncontrollable Forces*, which reads as follows:

Section 14. Uncontrollable Forces.

Neither party hereto shall be considered to be in default in respect of any obligation hereunder, if prevented from fulfilling such obligation by reason of uncontrollable forces, including but not limited to failure of facilities, flood, earthquake, storm, lightning, fire, epidemic, war, riot, civil disturbance, labor disturbance, materials or equipment shortages, fuel curtailment or shortage, or restraint by court or public authority which by exercise of reasonable diligence and foresight could not have been avoided, but excluding drought. Either party rendered unable to fulfill any obligation by reason of an uncontrollable force shall remove such inability with all reasonable dispatch.

It is Southeastern's desire to maintain the current contractual arrangement among the parties, and to the maximum extent practicable, Southeastern will adhere to the provisions of said contract until such time that we are able to resume normal operations.

In the interim, I have instructed my staff to develop operating concepts for the Cumberland System of projects which could be used to distribute any remaining system benefits on a fair and equitable basis. To this end, effective for the declaration week beginning February 25, 2007, I have implemented an initial Interim Operating Plan (Interim Plan) for the Cumberland System of projects. This Interim Plan was discussed with Cumberland System customers at a meeting on February 7 and a Team Cumberland



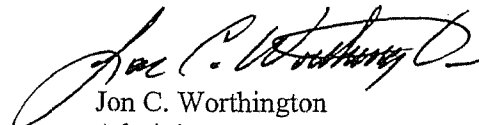
meeting on February 21. The Interim Plan represents a method that permits some level of hydropower benefits be provided to all of Southeastern's customers in the Cumberland System. The Interim Plan will provide customers the generation that is available from the system on a ratable basis as quantities are made available by the Nashville District Corps of Engineers. This plan does not represent a permanent reallocation of benefits, nor is it a change to the Cumberland Power Marketing Policy. Southeastern welcomes discussion, comments, or suggestions relating to the Interim Plan and will continue to monitor system operations under the Interim Plan to ensure desired objectives are being obtained. The Interim Plan will be adapted as necessary to meet changing situations and system conditions as well as to incorporate customer input wherever possible.

In conjunction with the Interim Plan, Southeastern will implement a modification to the Cumberland System rate structure. The revised rate structure will change from a capacity based rate to an energy charge. The TVA transmission charges will be recovered by direct assignment of the costs. Southeastern believes this revised structure will more appropriately represent a fair distribution of system costs based on the level of benefits a customer receives rather than the current capacity construct.

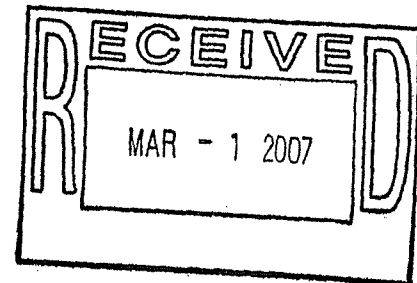
The impact this operational change will have on you, our customer, is not lost on Southeastern and we do not take this action lightly. Southeastern is committed to working with you towards optimizing benefits for the customers whenever possible from whatever power is made available by the Corps as the repairs at project progress toward returning Wolf Creek to its historic capabilities as a storage project. We appreciate your understanding of these difficult decisions and your continued cooperation in getting through this situation.

If you have questions or need further information, please contact me or my staff at your convenience.

Sincerely,

  
Jon C. Worthington  
Administrator

JCW/bbc



**PERMITS**

**KENTUCKY DEPARTMENT OF FISH & WILDLIFE**

**CORPS OF ENGINEERS**

**U.S. DEPARTMENT OF AGRICULTURE**

**KENTUCKY DIVISION FOR AIR QUALITY**



KENTUCKY COMMERCE CABINET  
KENTUCKY DEPARTMENT OF FISH & WILDLIFE RESOURCES

**Ernie Fletcher**  
Governor

#1 Sportsman's Lane  
Frankfort, Kentucky 40601  
Phone (502) 564-3400  
1-800-858-1549  
Fax (502) 564-0506  
fw.ky.gov

**George Ward**  
Secretary

**Dr. Jonathan W. Gassett**  
Commissioner

March 12, 2007

Charles Leveridge, Interim Plant Manager  
Eastern Kentucky Power Company  
Cooper Power Station  
P O Box 38  
Burnside, KY 42519

Copy

Mr. Leveridge:

Pursuant to Kentucky Revised Statute 235.280 and 301 Kentucky Administrative Regulation 6:040 the Kentucky Department of Fish and Wildlife Resources does, per your request dated February 16, 2007, hereby authorize the establishment of an 800 yard Idle Speed/ No Wake Zone around the water intake structure of the Cooper Power Station.

The method of marking this Idle Speed/No Wake Zone must be in conformity with 33 Code of Federal Regulation 1, subpart 66.10-5 to 66.10-45 governing the placement and characteristics of navigational and regulatory markers. Eastern Kentucky Power Company will be solely responsible for all expenses related to the establishment and maintenance of said zone. Additionally, as Lake Cumberland is considered a navigable waterway, Eastern Kentucky Power Company must, prior to establishment of this Idle Speed/ No Wake Zone, obtain a concurrent agreement with the Army Corps of Engineers.

If the circumstances surrounding the establishment of this regulatory zone should change, please notify this department immediately. Authorization for this zone may be terminated, with 30 days written notice, by the Kentucky Department of Fish and Wildlife Resources at any time deemed appropriate.

Sincerely,

Dr. Jonathan Gassett  
Commissioner

JWG/JRA/pd

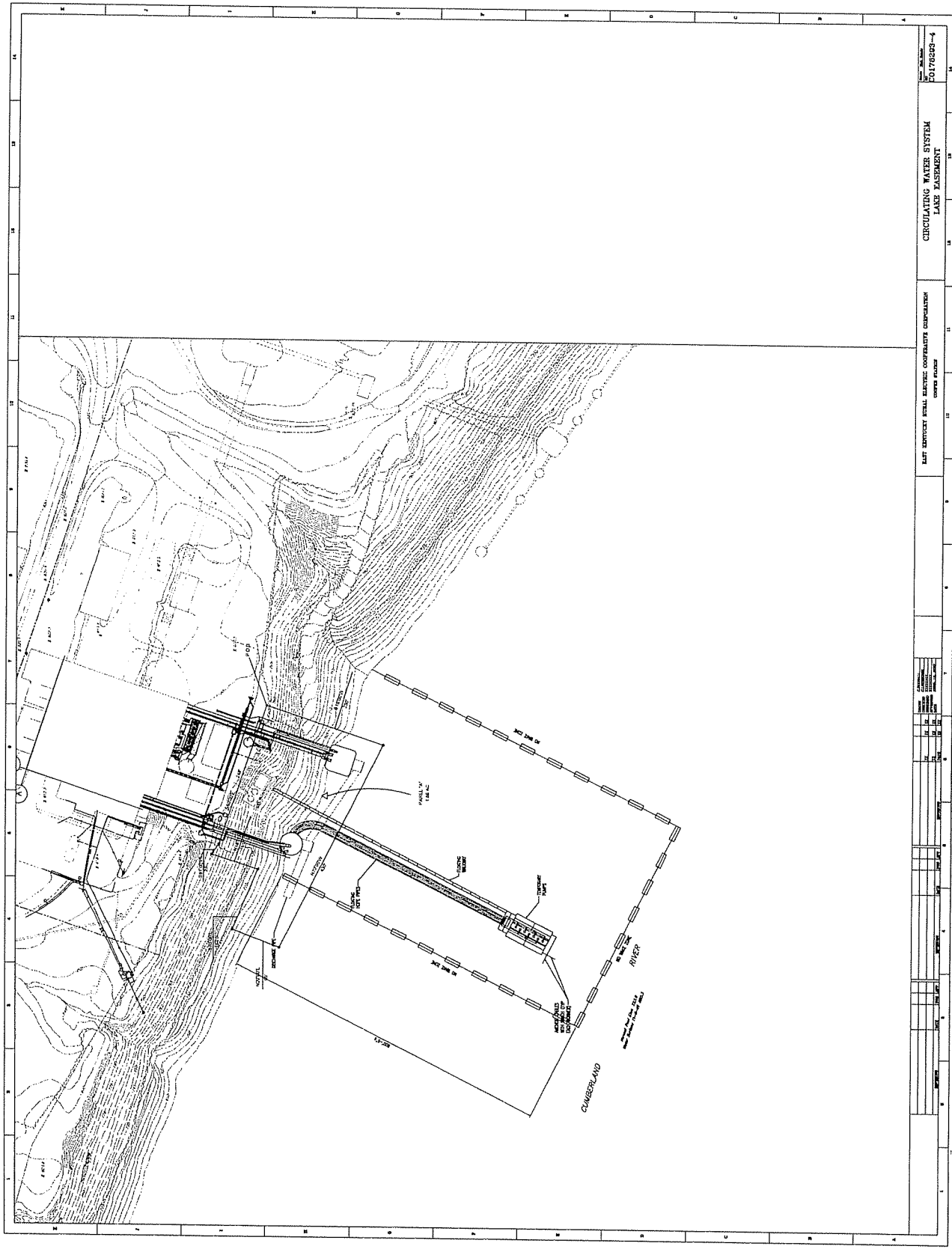
Plans for Extensions of Water Intakes 082807.txt  
From: Lachicotte, Kathryn A LRN [Kathryn.A.Lachicotte@usace.army.mil]  
Sent: Wednesday, August 29, 2007 1:25 PM  
To: Jerry Purvis  
Cc: Charles Leveridge; Franklin, Kimberly S LRN  
Subject: Plans for Extensions of Water Intakes

Mr. Leveridge & Mr. Purvis,

Can I get a full set of plans from you on the extensions of the intakes? We don't have anything on one of the structures and the plans that we have on the other is minimum. It doesn't show elevations or cross sections. Kim Franklin is processing the Regulatory Permit & she needs a full set of plans.

You may want to contact her to double check what she may need. Give us a call if you have any questions. My number is 615-736-7719 and Kim's number is 615-369-7511. Please let us know as soon as possible. I will be out the rest of this week after today, back in on Tuesday, 4 September.

Thanks again, Kathy



CIRCULATING WATER SYSTEM  
LANS EASEMENT

DATE: 10/15/10  
DRAWN BY: J. J. [unreadable]  
CHECKED BY: [unreadable]  
APPROVED BY: [unreadable]

LANS EASEMENT



EASEMENT DESCRIPTION

PARCEL A

PERMANENT EASEMENT  
FOR  
EAST KENTUCKY POWER COOPERATIVE, INC.  
AT  
JOHN SHERMAN COOPER POWER STATION  
Burnside, KY

A certain tract or parcel of land situated along Lake Cumberland in Pulaski County, Kentucky and being more particularly described as follows:

**POINT OF BEGINNING** at a US Army Corps of Engineers boundary corner Z-2643-2, corner to East Kentucky Power Cooperative, Inc., thence along the US Army Corps of Engineers boundary with East Kentucky Power Cooperative, Inc.;

South 60°25'11" East 350.00 feet to a point, thence leaving East Kentucky Power Cooperative, Inc. with US Army Corps of Engineers;

South 25°19'41" West 313.17 feet to a point, thence;

North 65°35'41" West 350.00 feet to a point, thence;

North 25°28'51" East 344.76 feet to the **POINT OF BEGINNING**.

Parcel A described above contains 114,976 square feet or 2.64± Acres and is a part the property conveyed to the United States of America, US Army Corps of Engineers for the Wolf Creek Dam project and Lake Cumberland.

EASEMENT DESCRIPTION

PARCEL B

TEMPORARY EASEMENT  
FOR  
EAST KENTUCKY POWER COOPERATIVE, INC.  
AT  
JOHN SHERMAN COOPER POWER STATION  
Burnside, KY

A certain tract or parcel of land situated along Lake Cumberland in Pulaski County, Kentucky and being more particularly described as follows:

Commencing at a US Army Corps of Engineers boundary corner Z-2643-2, corner to East Kentucky Power Cooperative, Inc., thence leaving East Kentucky Power Cooperative, Inc.;

South 25°28'51" West 344.76 feet to a point, thence;

South 65°35'41" East 599.22 feet to a point the **POINT OF BEGINNING**, thence;

South 65°35'41" East 697.01 feet to a point, thence;

South 52°34'25" East 108.71 feet to a point, thence;

South 26°15'16" West 628.24 feet to a point, thence;

North 63°44'44" West 803.29 feet to a point, thence;

North 26°15'16" East 626.80 feet to the **POINT OF BEGINNING**.

Parcel B described above contains 512,619 square feet or 11.77± Acres and is a part the property conveyed to the United States of America, US Army Corps of Engineers for the Wolf Creek Dam project and Lake Cumberland.



EASEMENT DESCRIPTION

PARCEL C

TEMPORARY EASEMENT  
FOR  
EAST KENTUCKY POWER COOPERATIVE, INC.  
AT  
JOHN SHERMAN COOPER POWER STATION  
Burnside, KY

A certain tract or parcel of land situated along Lake Cumberland in Pulaski County, Kentucky and being more particularly described as follows:

Commencing at a US Army Corps of Engineers boundary corner Z-2643-2, corner to East Kentucky Power Cooperative, Inc., thence with existing US Army Corps of Engineers and East Kentucky Power Cooperative, Inc. boundary;

South 60°25'11" East 350.00 feet to the **POINT OF BEGINNING**, thence continuing with US Army Corps of Engineers;

South 60°25'11" East 121.35 feet to corner Z-2643-3, thence,

South 63°21'36" East 461.99 feet to corner Z-2643-4, thence;

South 61°35'37" East 654.52 feet to corner Z-2645-1, thence;

South 47°01'10" East 654.73 feet to corner Z-2645-2, thence;

South 75°16'54" East 290.36 feet to corner Z-2645-3, thence;

South 47°48'10" East 164.57 feet to corner Z-2645-4, thence;

South 43°33'49" West 87.45 feet to corner Z-2645-5, thence;

South 51°31'49" East 453.64 feet to a point in the line of US Army Corps of Engineers, thence leaving East Kentucky Power Cooperative, Inc., along the easement;

South 37°25'35" West 238.48 feet to a point, thence;

North 52°34'25" West 1760.66 feet to a point, thence;

North 65°35'41" West 946.22 feet to a point, thence;

North 25°19'41" East 313.17 feet to the **POINT OF BEGINNING**.

EASEMENT DESCRIPTION

PARCEL D

PERMANENT EASEMENT  
FOR  
EAST KENTUCKY POWER COOPERATIVE, INC.  
AT  
JOHN SHERMAN COOPER POWER STATION  
Burnside, KY

A certain tract or parcel of land situated along Lake Cumberland in Pulaski County, Kentucky and being more particularly described as follows:

Commencing at a US Army Corps of Engineers boundary corner Z-2644-1, the **POINT OF BEGINNING**, corner to East Kentucky Power Cooperative, Inc., thence with existing US Army Corps of Engineers and East Kentucky Power Cooperative, Inc. boundary;

North 32°42'39" East 150.00 feet to a point, thence leaving East Kentucky Power Cooperative, Inc. with the easement;

South 45°35'09" East 425.30 feet to corner Z-2645-8, thence continuing with the easement;

South 53°16'36" West 345.74 feet to a point, thence;

North 52°34'25" West 515.35 feet to a point, thence;

North 37°25'35" East 238.48 feet to a point, corner to East Kentucky Power Cooperative, Inc., thence with existing US Army Corps of Engineers and East Kentucky Power Cooperative, Inc. boundary;

South 51°31'49" East 200.00 feet to the **POINT OF BEGINNING**.

Parcel D described above contains 179,125 square feet or 4.11± Acres and is a part the property conveyed to the United States of America, US Army Corps of Engineers for the Wolf Creek Dam project and Lake Cumberland.



May 10, 2007

Ranger Brant Norris  
Nashville District, Corps of Engineers  
865 Boat Dock Road  
Somerset, KY 42501-6016

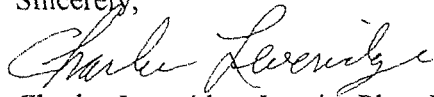
**Subject:** Rite of Entry Request

Dear Mr. Norris:

On May 9, 2007 Cooper Station staff completed test on Unit 2 circulating water system in an effort to determine our ability to deliver rated flow at the existing lake elevation. Due to the lower lake head we are unable to run both hydraulic turbine pumps and circulating water pumps. The reduced cooling water flow will result in reduced generation. EKPC has electric driven pumps ordered and awaiting delivery. In the interim EKPC request Rite of Entry to place diesel driven pumps on the Corps of Engineers property adjacent to Unit 2 intake structure.

Let us know if you need any additional information. Please feel free to call me at (606) 561-4138 extension 209.

Sincerely,



Charles Leveridge, Interim Plant Manager  
EKPC Cooper Power Station

Cc: J. Twitchell PE  
D. Smart

MEMORANDUM FOR CELRN-RE-O (Pendergrast)

SUBJECT: Immediate Right of Entry for the Installation of Four Diesel Driven Pumps and Flexifloat Barge with Five Supplemental Pumps, East Kentucky Power Cooperative, Cooper Power Plant, Tract No. Z-2643, Lake Cumberland

1. No plans have been submitted regarding the proposed leveling of this site. Since this is part of the remediation required due to the emergency lowering of Lake Cumberland, our office is willing to consider a waiver of any fill required but it must be shown that due effort has been taken to minimize any such fill. Therefore, I am unable to make a recommendation regarding the approval or disapproval of this application.
2. Please feel free to contact me at (615)-736-5948 if you have any questions regarding this matter.

Phyllis Kohl  
Flood Plain Management Services

East Kentucky Power Cooperative, Inc.  
J.S. Cooper Power Station  
Right of Entry Request/ Response to No.1.

SUBJECT: Immediate Right of Entry for the Installation of Four Diesel Driven Pumps and Flexifloat Barge with Five Supplemental Pumps, East Kentucky Power Cooperative, Cooper Power Plant, Tract No. Z-2643, Lake Cumberland

1. No plans have been submitted regarding the proposed leveling of this site. Since this is part of the remediation required due to the emergency lowering of Lake Cumberland, our office is willing to consider a waiver of any fill required but it must be shown that due effort has been taken to minimize any such fill. Therefore, I am unable to make a recommendation regarding the approval or disapproval of this application.

EKPC proposes to level an area measuring 16' x 50' utilizing 60 cu.yds. of crushed stone to provide a site for four diesel driven pumps. No additional fill will be required. The Kentucky Division of Water (KYDOW) and KY Dept. of Air Quality (DAQ) requires us to cover the earth with stone to minimize fugitive dust emissions and possible soil erosion. The site in question is depicted in the drawing adjacent to Unit 2 for the diesel driven pumps.

2. Please feel free to contact me at (615)-736-5948 if you have any questions regarding this matter.

Phyllis Kohl  
Flood Plain Management Services

RE COE Letter for EKPC 082807.txt  
From: Wilson, Mike LRN [Mike.W.Wilson@usace.army.mil]  
Sent: Monday, August 27, 2007 10:54 PM  
To: Jerry Purvis  
Subject: RE: COE Letter for EKPC

Jerry,

I am currently out of town at Congressman Roger's PRIDE event. I did talk to Hilda today and we are currently staffing a draft letter inside the office. I may be able to get it to you tomorrow. I will call when I am on the road around 1200 tomorrow.

Mike

-----Original Message-----

From: Jerry Purvis [mailto:jerry.purvis@ekpc.coop]  
Sent: Monday, August 27, 2007 12:25 PM  
To: Wilson, Mike LRN  
Cc: Charles Leveridge; Craig Johnson; Barry Mayfield  
Subject: COE Letter for EKPC

Mike:

Hope you had a great weekend. Appreciate all you do to help us. Did Hilda give you a ring about the letter? And when can we speak (conference call) to Bob Sneed about heading to 678 ELEV?

Just wanted to run a couple items past you. Appreciate your help.

Jerry Purvis

Jerry Purvis \* East Kentucky Power Cooperative | J.S.Cooper Power Station

Maintenance Superintendent

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

\* 606.561.4138 7 606.561.5697 \* jerry.purvis@ekpc.coop <mailto:jerry.purvis@ekpc.coop>

RE Fill Material or Displaced amount 082707.txt

From: Lachicotte, Kathryn A LRN [Kathryn.A.Lachicotte@usace.army.mil]  
Sent: Monday, August 27, 2007 2:58 PM  
To: Jerry Purvis  
Subject: RE: Fill Material or Displaced amount

Thanks Jerry, I forwarded your message on to our flood management section. Phyllis is not in today but she should be back tomorrow. If she needs anything else, I sure that she will get in touch with you. Thanks again, Kathy 615-736-7719

-----Original Message-----

From: Jerry Purvis [mailto:jerry.purvis@ekpc.coop]  
Sent: Monday, August 27, 2007 11:19 AM  
To: Lachicotte, Kathryn A LRN  
Cc: Norris, Brant A LRN; Charles Leveridge; Mark Moneyhon; Chuck Woodall  
Subject: RE: Fill Material or Displaced amount

Kathryn:

If we build the cooling tower make-up structure in Parcel A or Parcel D, only one would be built, we would displace 40 yards of rock/fill material. This material would be displaced because the piping would extend from the structure on our property to the lake, underground. This is based on a 36-inch line that would run from the structure underground into the lake at 630 ELEV.

If you have any further questions please feel free to call me at 606-561-4138.

Thank you for your help,

Jerry Purvis

Jerry Purvis \* East Kentucky Power Cooperative | J.S.Cooper Power Station  
Maintenance Superintendent

7130 Highway 1247 | Somerset, KY 42501

P.O. Box 38 | Burnside, KY 42519

\* 606.561.4138 7 606.561.5697 \* jerry.purvis@ekpc.coop

-----Original Message-----

From: Lachicotte, Kathryn A LRN [mailto:Kathryn.A.Lachicotte@usace.army.mil]  
Sent: Friday, August 24, 2007 4:49 PM  
To: Charles Leveridge; Jerry Purvis  
Cc: Kohl, Phyllis LRN  
Subject: Fill Material or Displaced amount

Charlie,

I never did hear back on the displaced amount or if there was any fill material. Please let me know as soon as you can if there is any displaced amount, etc.

Phyllis,



RE Fill Material or Displaced amount 082707.txt  
Would there be anything else that you might need from East Kentucky Power  
Cooperative (Cooper Station)?

Thanks, Kathy  
615-736-7719



DEPARTMENT OF THE ARMY  
NASHVILLE DISTRICT, CORPS OF ENGINEERS  
P. O. BOX 1070  
NASHVILLE, TENNESSEE 37202-1070

IN REPLY REFER TO

June 11, 2007

Real Estate Division

Mr. Charles Leveridge, Interim Plant Manager  
East Kentucky Power Cooperative, Cooper Power Station  
4775 Lexington Road  
PO Box 38  
Burnside, Kentucky 42501

Dear Mr. Leveridge:

This is in response to your recent request for a right-of-entry for the installation, operation, and maintenance of four diesel driven pumps and a Flexifloat barge with five supplemental pumps below elevation 723 within Lake Cumberland, under the jurisdiction of the Nashville District Corps of Engineers. The installation of the four diesel pumps and Flexifloat Barge with five pumps is due to the drawdown of Lake Cumberland in connection with the Wolf Creek Dam Safety Project, situated on Tract No. Z-2643, Pulaski County, Kentucky.

A right-of-entry is hereby granted to East Kentucky Power Cooperative to enter upon property under the jurisdiction of the Nashville District, Corps of Engineers for the installation, operation, and maintenance of the referenced pumps and barge on Tract No. Z-2643, Wolf Creek Dam – Lake Cumberland Project. The Right of Entry is granted subject to the following conditions:

a. The installation, operation, and maintenance of the four diesel pumps and Flexifloat barge with pumps will be in accordance with the plans submitted to the Lake Cumberland Resource Manager's Office and the Nashville District, Corps of Engineers for review and approval.

b. This right-of-entry is effective only insofar as to perform the installation of the four diesel pumps and Flexifloat barge with supplemental pumps located in Pulaski County, Kentucky. The grantee will comply with all applicable Federal laws and regulations, ordinances, and regulations of the state, county and municipality during the relocation work.

c. This right-of-entry covers only the federal government's interest in the property and all other authorizations are the responsibility of East Kentucky Power Cooperative.

RECEIVED JUN 19 2007


d. It is also agreed and understood that if any archeological materials are found during the installation of the four diesel pumps and Flexifloat barge, work in the immediate area of the find will cease and the Corps Project Planning Branch shall be contacted at 615-736-5027 to evaluate the find before additional work is conducted.

e. The grantee will protect all project boundary monuments and associated markers from any disturbance during the installation of the power line(s).

f. East Kentucky Power Cooperative must comply with all conditions as stated in the Nationwide Permit (NWP) No. 12, Utility Line Activities, dated June 7, 2007, File No. 200701047. If you fail to comply with any of the conditions, the authorization may be modified, suspended, or revoked.

g. East Kentucky Power Cooperative agrees to enter into an easement agreement with the Corps of Engineers, Nashville District, in accordance with the plans as submitted to the Lake Cumberland Resource Manager's Office, and as above referenced, upon completion of the easement authorization and approval process.

I have reviewed this document and accept the conditions stated herein.


By:   
CHARLES LEVERIDGE, Interim Plant Manager  
East Kentucky Power Cooperative  
Burnside, Kentucky

Date: 6/18/07

APPROVED AS TO FORM & LEGALITY

Please review, and if all term and conditions prove satisfactory, the letter should be signed by the appropriate official where indicated. The original signed right-of-entry will be returned to this office for our records. You may retain a copy for your records. Your continued cooperation is appreciated.

Sincerely,

  
PRISCILLA W. PAIGE  
Chief, Real Estate Division

Enclosures

# ENVIRONMENTAL AND PUBLIC PROTECTION CABINET

Ernie Fletcher  
Governor

Department for Environmental Protection  
Division for Air Quality  
803 Schenkel Lane  
Frankfort, Kentucky 40601-1403

Teresa J. Hill  
Secretary

April 11, 2007

East Kentucky Power Cooperative, Inc.  
ATTN: Mike Binkley  
4775 Lexington Road, PO Box 707  
Winchester, Kentucky 40392-0707

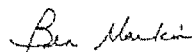
RE: Installation of new cooling tower system  
Permittee Name: East Kentucky Power Cooperative, Inc.  
Source ID: 21-199-00005  
Agency Interest #: 3808  
Activity ID: APE20070002  
Permit ID: V-05-082

Dear Mr. Binkley:

The Division received East Kentucky Powers Cooperative's application for the installation of the new cooling tower system. The Division has determined that these activities can be covered per KAR 52:020 Section 18, Off-Permit and Section 502(b)(10) Changes. Therefore, no permit revision is required at this time and you may proceed with the project as described by your permit application. Registration of the changes will be incorporated in the next renewal or revision of your Title V Permit.

This letter does not exempt your source from the regulatory requirements of any other federal, state, or local agency, which may have regulations that apply. You are reminded that if you intend to construct, reconstruct, or modify an air contaminant source in the future, you are required by regulation to apply for and, if required, be issued a permit, in accordance with 401 KAR 52:020 prior to the commencement of any construction. If you have any questions, please contact Prathap John at (502) 573-3382, extension 461.

Sincerely,



Ben Markin  
Combustion Section Supervisor  
Permit Review Branch

BAM/PDJ  
cc: Source File/Regional Office



United States Department of Agriculture  
Rural Development

Rural Business-Cooperative Service • Rural Housing Service • Rural Utilities Service  
Washington, DC 20250

Mr. Robert M. Marshall  
President/CEO  
East Kentucky Power Cooperative, Inc.  
P.O. Box 707  
Winchester, KY 40392-0707

JUL 16 2007

Dear Mr. Marshall:

The Rural Development Utilities Programs Engineering and Environmental Staff has completed its review of the project description for the proposed Cooper Unit II Cooling Tower and Associated Barges, Pumps, and Piping located at the Cooper Power Station in Pulaski County, Kentucky. The project, as proposed, meets the criteria for a categorical exclusion in accordance with 7 CFR 1794.21(b)(6) Environmental Policies and Procedures. An environmental report, assessment or environmental impact statement will not need to be prepared for this project.

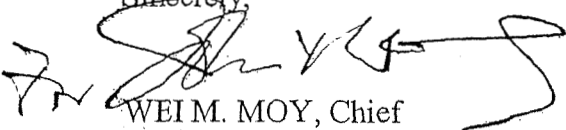
Please note, upon East Kentucky Power Cooperative's receipt of the February 9, 2007 letter from the U. S. Army Corp of Engineers detailing the planned drop in lake water level, our staff should have been notified prior to initiation of the proposed work (diesel pumps, access road, cut bank, and staging area) for appropriate classification in accordance with our regulations. Failure to receive environmental approval prior to initiation of construction could result in loss of RUS loan funds.

We require no further information regarding potential environmental impacts associated with the project provided it is constructed as described in the project description.

East Kentucky Power Cooperative Inc. is responsible for ensuring that any environmental commitments made in the project description are fulfilled in the construction of the proposed project.

Thank you for your assistance and cooperation in helping us fulfill our environmental review requirements.

Sincerely,

  
WEI M. MOY, Chief  
Power Supply Engineering Branch  
Power Supply Division

JUL 19 2007



**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**PSC CASE NO. 2007-00168**  
**INFORMATION REQUEST RESPONSE**

**ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED**  
**SEPTEMBER 17, 2007**  
**REQUEST 8**

**RESPONSIBLE PERSON: Jerry Purvis**  
**COMPANY: East Kentucky Power Cooperative, Inc.**

**Request 8.** In detail, describe the decision process in determining the current construction schedule. This description should include timelines, decision makers, the basis for any and all decisions in the timetable, and the information relied upon for each and every decision.

**Response 8.** The construction schedules (attached) reflect the timelines, timetables, long lead items and the order of construction.

Supplemental to this: With the assistance of EKPC's engineering consultant, Stanley Consultants (Stanley) EKPC selected the Hybrid plan as the basis for the decision to provide cooling water to J.S. Cooper Power Station. The Hybrid plan details are contained in the Certificate of Public Convenience and Necessity (CPCN) filing with the PSC.

EKPC and Stanley identified the long lead items, the equipment and contractors available from Spurlock 4 and the Smith Station Unit 1 cooling tower procurement and erection and developed the construction schedule. The RUS contracts were in place to commercially execute the work at Cooper Station by amending the Spurlock 4 and Smith 1 contracts.



Utilizing this coordinated plan, EKPC matched the milestones of construction and its decisions with the performance and schedule of the work at Wolf Creek Dam. EKPC began construction of the cooling tower for Unit 2. The first phase of construction for the cooling tower is the cooling tower basin, which is the tower's foundation. The bulk of the materials for the cooling tower have been delivered to Cooper Station. While the cooling tower work was being performed, the marine construction began.

The marine construction consisted of purchasing and installing four barge-mounted pumps and associated electrical switchgear. EKPC constructed the barge platform and installed four pumps to supply cooling water to Unit 1 and Unit 2.

EKPC has entered phase II of the Hybrid plan to purchase and install four additional barge-mounted pumps for Cooper Station. The four additional pumps will provide enough cooling water to Unit 1 and Unit 2 for the fall, winter and spring operation at full rating.

The operation of the plant can be maintained at lake levels below 673 feet by extending the water piping between the barges and the Cooper Station cooling system.

On August 2, EKPC made the decision to delay the erection of the cooling tower for 30 days. This 30-day window allowed EKPC to study the information received from the COE. A meeting occurred on August the 17th at the Old Hickory Dam with Corps of Engineers representatives LT. Colonel Bernard Lindstrom, U.S. Army District Commander, Mike Wilson, Deputy District Engineer for Project Management; and Mike Enschede, Chief Operations, to understand the intent of the press release and how it related to lake level and future construction at Wolf Creek. A draft letter was received from Lt. Colonel Lindstrom on August 24<sup>th</sup> outlining the discussion between EKPC and the USCAE. In an internal conference call on September 4th, EKPC CEO Bob Marshall was

informed of the relevant information as it related to Cooper Station, lake level and the developments at Wolf Creek. EKPC determined that it was prudent to commit to the addition of four additional barge mounted pumps as related to Phase II of the Hybrid plan. A total of eight barge-mounted pumps would supply enough cooling water to Cooper Station for the fall, winter and spring operation and allow additional time to review a decision to commit to the erection of the cooling tower.



**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**PSC CASE NO. 2007-00168**  
**INFORMATION REQUEST RESPONSE**

**ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 9**

**RESPONSIBLE PERSON: Jerry Purvis**  
**COMPANY: East Kentucky Power Cooperative, Inc.**

**Request 9.** Please provide a revised construction schedule including equipment and installation milestones. Please explain in detail any significant deviation from the original schedule.

**Response 9.** Attached are the Original and Revised Construction Schedules. For an explanation of the change, see AG Response 8.

**MAY 2008**  
Cooper Project Schedule-Completion By ~~December 19~~, 2007 Original Co

ID	Task Name	Duration	Start	Month				
				Apr	May	Jun	Jul	Aug
1	EKPC Board Decision To Proceed w/Hybrid Plan \$24M Total	1 day	Tue 4/10/07					
2	Engineering Services	179 days	Thu 4/26/07	[Task Bar]				
3	EKPC-Order Supplemental Pumps	1 day	Tue 4/24/07					
4	Establish Cooling Tower Location	1 day	Tue 4/10/07					
5	Site Survey	39 days	Mon 4/30/07		[Task Bar]			
6	Soil Boring (Cooling Tower Reciting)	5 days	Mon 4/30/07		[Task Bar]			
7	Begin Supplemental Pump / Barge Construction	21 days	Fri 6/1/07			[Task Bar]		
8	Cooling Tower Basin Design Drawings	10 days	Mon 4/30/07		[Task Bar]			
9	Baker Pricing Preparation-Cooling Tower Basin	6 days	Fri 5/11/07		[Task Bar]			
10	Negotiating Meeting-Baker	1 day	Thu 5/24/07				[Task Bar]	
11	Award Cooling Tower Basin	1 day	Fri 5/25/07				[Task Bar]	
12	Baker Material Procurement & Shop Drawing Submittal	30 days	Tue 5/29/07			[Task Bar]		
13	Baker Mobilization	6 days	Mon 6/4/07			[Task Bar]		
14	Basin Construction	50 days	Tue 6/12/07				[Task Bar]	
15	Letter To Marley	1 day	Tue 5/8/07					
16	Negotiating Meeting-Marley	1 day	Thu 5/24/07				[Task Bar]	
17	Award Cooling Tower	13 days	Fri 5/25/07			[Task Bar]		
18	Marley Cooling Tower Engineering	11 days	Tue 5/29/07			[Task Bar]		
19	Order & Delivery Cooling Tower Materials	54 days	Wed 6/13/07				[Task Bar]	
20	Marley Mobilize & Receive Materials	21 days	Fri 7/27/07					[Task Bar]
21	Cooling Tower Erection	87 days	Wed 1/2/08					[Task Bar]
22	Identify Useful Spurlock 4 Equipment	1 day	Fri 5/11/07					
23	Order Replacement Spurlock 4 Equipment	41 days	Fri 5/18/07			[Task Bar]		
24	Cooling Tower Balance Of Plant Piping Design	24 days	Mon 4/30/07		[Task Bar]			
25	BOP Detailed Elec/Mech/Structural Design	45 days	Mon 4/30/07		[Task Bar]			
26	Reynolds Pipe Pricing Preparation	32 days	Fri 6/1/07			[Task Bar]		
27	Negotiating Meeting-Reynolds piping Pkg.	21 days	Mon 6/18/07				[Task Bar]	
28	Award Balance Of Plant Piping Pkg.	12 days	Fri 6/29/07				[Task Bar]	
29	Reynolds-Installation Pkg. Pricing Preparation	13 days	Mon 7/2/07				[Task Bar]	
30	Negotiating Meeting Reynolds-Install Package	1 day	Mon 7/23/07				[Task Bar]	
31	Award BOP Electrical/Controls Pkg.	1 day	Fri 11/30/07					[Task Bar]
32	BOP-Procure Equip & Material/Shop Drawings	110 days	Fri 6/29/07					[Task Bar]
33	Order Pipe	30 days	Wed 6/20/07				[Task Bar]	
34	Reynolds Mobilize	5 days	Thu 12/27/07					[Task Bar]
35	Reynolds-Balance Of Plant Construction	96 days	Wed 1/2/08					[Task Bar]
36	Hytrans /Hall (Marine Contractor) Pricing Preparation	5 days	Thu 5/10/07		[Task Bar]			
37	Negotiating Meeting Hytrans/Hall -Construction Package	1 day	Fri 5/25/07				[Task Bar]	
38	Award Hall Contracting Pump/Barge Pkg.	1 day	Tue 5/29/07				[Task Bar]	

Project: Low Lake Construction Plan F  
Date: Thu 9/20/07

Task [Task Bar] Progress [Solid Bar]  
Split [Dotted Bar] Milestone [Diamond]

Summary  
Project Sumr

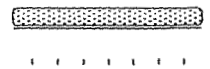
*MAY 2008*

Cooper Project Schedule-Completion By ~~December 19,~~ 2007 Original C

ID	Task Name	Duration	Start					
				Apr	May	Jun	Jul	Aug
39	Receive Barges	1 day	Mon 7/2/07					
40	Mount (4) Pumps and Switchgear on Barges	30 days	Mon 8/6/07					
41	Order Remaining 5 additional Barges and 4 Pumps	1 day	Fri 9/28/07					
42	Receive Barge Pumps	66 days	Mon 9/24/07					
43	Hall Mount additional 4 Pumps on Barges	7 days	Fri 12/21/07					
44	Hall Order Piping and Fittings	3 days	Fri 9/28/07					
45	Hall Receive Piping and Fittings	5 days	Tue 10/2/07					
46	Hall install additional piping into wet well Unit 1 & 2	65 days	Mon 10/1/07					
47	Cooling Tower Check Out & Start Up	20 days	Thu 5/1/08					
48	Unit 2 Tie In/Maintenance Outage	21 days	Thu 5/1/08					

Project: Low Lake Construction Plan F  
Date: Thu 9/20/07

Task  
Split



Progress  
Milestone







Summary  
Project Summ



Cooper Project Schedule-Completion By December 19, 2007 Original Cr

ID	Task Name	Duration	Start	Month		
				Apr	May	Jun
39	Receive Barges	1 day	Mon 7/2/07			
40	Mount (4) Pumps and Switchgear on Barges	30 days	Tue 7/3/07			
41	Order Remaining 5 additional Barges and 4 Pumps	1 day	Mon 9/10/07			
42	Receive Barge Pumps	56 days	Mon 10/1/07			
43	Hall Mount additional 4 Pumps on Barges	30 days	Mon 10/8/07			
44	Hall Order Piping and Fittings	3 days	Mon 9/10/07			
45	Hall Receive Piping and Fittings	5 days?	Mon 9/3/07			
46	Hall install additional piping into wet well Unit 1 & 2	35 days	Mon 10/8/07			
47	Cooling Tower Check Out & Start Up	11 days	Mon 12/3/07			
48	Unit 2 Tie In/Maintenance Outage	14 days	Sat 12/1/07			

Project: Low Lake Construction Plan F  
Date: Thu 9/20/07

Task		Progress		Summary
Split		Milestone		Project Summary





**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**PSC CASE NO. 2007-00168**  
**INFORMATION REQUEST RESPONSE**

**ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED**  
**SEPTEMBER 17, 2007**  
**REQUEST 10**

**RESPONSIBLE PERSON: Jerry Purvis**  
**COMPANY: East Kentucky Power Cooperative, Inc.**

**Request 10.** Please describe whether the proposed delay of the cooling tower installation and installation of an additional pump will have any effect on the permits obtained for the project.

**Response 10.** The proposed delay would have no effect on the permits.



EAST KENTUCKY POWER COOPERATIVE, INC.  
PSC CASE NO. 2007-00168  
INFORMATION REQUEST RESPONSE

ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 11

RESPONSIBLE PERSON: Jerry Purvis  
COMPANY: East Kentucky Power Cooperative, Inc.

**Request 11.** Please describe in detail the effects of the current drought conditions on the lake water levels and temperatures and their effects on the generation capacity of the plant.

**Response 11.** Due to the current drought conditions the COE has been unable to maintain the pool elevation of Lake Cumberland at the 680 level. With the lower lake level, the plant inlet water piping, at 673 feet, is seven feet below the surface, and the water drawn into the circulating water system is entering at surface water temperatures. The maximum water inlet temperature recorded this summer was 88 degrees F. Supplemental pumps, both diesel and electric, have delivered enough water volume to maintain generation at the Cooper Station. However; the high water temperatures have derated the plant during the summer. Plant derates began on June 20<sup>th</sup> and continue through September. From June 20<sup>th</sup> through June 31<sup>st</sup>, Cooper Station was derated an average of 30.7 MW each hour of operation. For the month of July, an average of 48.5 MW each hour of operation. For the month of August, an average of 78.3 MW each hour of operation and for the month of September, an average of 51.2 MW each hour of operation.



EAST KENTUCKY POWER COOPERATIVE, INC.  
PSC CASE NO. 2007-00168  
INFORMATION REQUEST RESPONSE

ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 12

RESPONSIBLE PERSON: Jerry Purvis  
COMPANY: East Kentucky Power Cooperative, Inc.

**Request 12.** Given the long lead times noted in the application for the pump, please state whether this pump is to be re-routed from another EKPC project and the effects upon the schedule to that project.

**Response 12.** The circulating water pumps are readily available from the Spurlock Station Unit 4 project. The circulating water pumps for Spurlock Station Unit 4 have been re-ordered so that no delays to that project will occur due to the re-routing of the pumps..



**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**PSC CASE NO. 2007-00168**  
**INFORMATION REQUEST RESPONSE**

**ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 13**

**RESPONSIBLE PERSON: Jerry Purvis**  
**COMPANY: East Kentucky Power Cooperative, Inc.**

**Request 13.** Please provide any information as to whether the U.S. Army Corp of Engineers has made a decision on lowering water levels in the lake at the end of the year. If water levels are to be lowered, please provide the anticipated date for such levels to be reached.

**Response 13.** The U.S. Army Corps of Engineers has submitted a draft letter to EKPC that states that unless there exists a trigger event that it will maintain the level of Lake Cumberland at 680 feet elevation. The USACE still maintains that should a trigger event occur that water users must make arrangements for lake elevation 650 feet. Attached are the Engineering Risk & Reliability Analysis prepared by the Corps of Engineers, and the news release and correspondence with EKPC concerning the decision not to further lower the lake level.





# News Release

**US Army Corps  
Of Engineers®**  
Nashville District  
P.O. Box 1070  
Nashville, TN 37202-1070

07-37

Release No.

**IMMEDIATE**

For Release: July 27, 2007

Bill Peoples [bill.peoples@us.army.mil](mailto:bill.peoples@us.army.mil)

Contact:

(615) 736-7161

Phone:

## **U.S. Army Corps of Engineers to continue elevation 680 at Lake Cumberland**

NASHVILLE, TENN. (July 27, 2007) - The U.S. Army Corps of Engineers, Nashville District, has announced plans to continue to hold the level of Lake Cumberland at elevation 680 unless project conditions worsen.

At elevation 680, Wolf Creek Dam is stable and improving. The 680 level was implemented in January and has reduced hydrostatic pressure on the dam and decreased seepage, therefore lowering the risks to people and property. The project has responded to this lake level with improved project conditions that include: improved critical indicators, slightly reduced piezometers readings, and fewer wet spots downstream. Expedited grouting is continuing in the critical areas and should be complete by September.

The Corps moved up this decision from the late Fall 07 timeframe, in order to provide stakeholders more time to make decisions about next year's recreation season and other business interests. The Corps was able to make this decision early based on the improving conditions at the dam, but Wolf Creek Dam continues to be a high risk dam with interim risk reduction measures in place and an expedited grouting program ongoing.

-more-

# **To Better Serve The Public**

The reduction to 680 has impacted the project purposes of Hydropower, Water Supply, Water Quality, Recreation and Navigation, but public health and safety remain the highest priority of the Corps of Engineers. Operating Lake Cumberland at 680 feet during the construction of the Major Rehabilitation will continue to reduce risk and allow other project purposes to continue, albeit with severe impacts.

The Corps is working to establish criteria and a decision process for the future pool elevations of Lake Cumberland. This is expected to be complete by mid-September and stakeholders and the public will be informed.

In February, the Corps requested that the 11 municipal and private water supply users extend their water supply intakes to elevation 650 as a contingency planning measure. The Corps believes this recommendation is still an appropriate measure for water supply users to take. If a distress indicator was observed at Wolf Creek Dam, then the Corps would have the ability to lower the lake level without affecting the water supply for residents and for public safety use around Lake Cumberland.

The Corps has an aggressive Dam Safety Program that includes constant monitoring of all of the dams in the Cumberland River System. The Corps, in cooperation with state and local agencies, maintains emergency notification plans to be used in the event of a failure. The Corps will keep the public informed of the conditions of at Wolf Creek Dam and the progress of rehabilitation work throughout the project with news releases and postings on the website: <http://www.lrn.usace.army.mil/WolfCreek/index.htm>

**From:** Canaday, Kathy J LRN [Kathy.J.Canaday@usace.army.mil]  
**Sent:** Tuesday, August 28, 2007 8:44 AM  
**To:** Hilda.Legg@ky.gov; Jerry Purvis  
**Cc:** Wilson, Mike LRN  
**Subject:** Draft letter to East KY Power Cooperative

Ms. Legg / Mr. Purvis,

Attached is the draft letter to Mr. John Twitchell of East Kentucky Power Cooperative sent on behalf of Mike Wilson.

Thank you,

Kathy Canaday

Secretary, PPPMD

US Army Corps of Engineers, Nashville District

Phone: 615-736-2342

Fax: 615-736-2052

<<East KY Power Coop - 27 Aug 07.doc>>

# DRAFT

Planning, Programs and Project Delivery

Mr. John R. Twitchell, P.E.  
Senior Vice President  
East Kentucky Power Cooperative  
4775 Lexington Road  
Post Office Box 707  
Winchester, Kentucky 40392-0707

Dear Mr. Twitchell,

I want to thank you for traveling to Nashville on August 24, 2007, to discuss the future of Lake Cumberland pool elevations with the Nashville District Corps of Engineers. I am writing this letter to summarize our discussion and offer the Corps' assistance in answering any remaining questions Eastern Kentucky Power may have concerning the Lake Cumberland pool or the Wolf Creek project.

As we discussed, the Corps has modified our position on how we will manage Lake Cumberland in the future. There are two scenarios that might lead to a pool lower than elevation 680. First, our current position is that we will not lower the pool below elevation 680 unless we identify a distress indicator such as the sudden appearance of a sinkhole, sudden unexplained changes in piezometer readings, or muddy flows in the tailrace that indicates a failure is in progress. Second, it is always possible that a drought such as the one we are currently experiencing makes it impossible to maintain the elevation 680 pool because river inflow is less than combined evaporation and required downstream releases for water quality.

This current proposal is a change from our original plans that involved keeping the pool at the lowest elevation that would not induce other life safety risks to the area. Now, even if local water intakes are lowered, we intend to stay at a minimum elevation 680 unless a stress indicator dictates we must go lower or drought makes it impossible to hold the pool at elevation 680. Even though we intend to stay at a minimum elevation of 680, we still recommend water intake users lower their intakes to elevation 650 in the event emergency measures require the pool to be lowered.

# DRAFT

- 2 -

Please feel free to contact my office if you have additional questions. My main point of contact is Mr. Mike Wilson, my Deputy for Project Management. He can be reached at 615-736-2342. Again, thank you for taking the time to visit us at Old Hickory and I look forward to our future associations.

Sincerely,

Bernard R. Lindstrom  
Lieutenant Colonel  
Corps of Engineers  
District Engineer



**US Army Corps  
of Engineers®**

For Immediate Release

April 24, 2007

# NEWS RELEASE

Release No. PA-07-11

CONTACT: Pete Pierce, 202-761-1809  
Walter.E.Pierce@hq02.usace.army.mil

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WASHINGTON--The U.S. Army Corps of Engineers (USACE) today released the *Wolf Creek Dam Consensus Report, Engineering Risk and Reliability Analysis*, an external independent peer review that validates the USACE high-risk classification of the dam and the interim risk reduction measures currently in effect.

On Jan. 22, USACE lowered the Wolf Creek Dam lake level to reduce the risk of dam failure during the ongoing, accelerated efforts to fix the project.

This is the first peer review report on a high-risk USACE dam, and it provides important input regarding current USACE efforts to investigate, monitor and modify Wolf Creek Dam.

Peer review is a critical component of both the USACE Dam Safety Program and USACE's 12 Actions for Change, released in August 2006. The 12 Actions emphasize the need to employ dynamic peer review of projects with potential of high consequences; employ risk-based concepts in construction; and effectively communicate risk with the public.

"Public safety is our number one priority," said Steve Stockton, U.S. Army Corps of Engineers deputy director of Civil Works. "The dynamic, independent review is integral to our 12 Actions for Change and provides additional depth to our assessment and analysis of hazards posed by our nation's aging flood and storm damage reduction infrastructure."

USACE in 2005 and 2006 performed an initial screening of more than 130 dam projects, which represent approximately 20 percent of the Corps' 610 dams. The screened dams were believed to be the highest risk among those USACE owns and operates. The risk-informed screening process considered performance and failure consequences, allowed USACE to prioritize its dams nationwide, and produced life risk and economic risk information. USACE's goal is to screen the remainder of its dams by the end of fiscal 2009.

As a result, USACE identified six dam projects that are critically near failure or have extremely high life and/or economic risk, and has made them a national priority for funding, studies, investigations and remedial work. USACE has implemented interim risk reduction measures, which include inspections, monitoring, pool restrictions, public awareness and additional instrumentation at each of the six.

The USACE dams identified as highest risk and highest priority are:

Wolf Creek Dam, located in Kentucky  
Center Hill Dam, located in Tennessee  
Martis Creek and Isabella Dams, both located in California  
Clearwater Dam, located in Missouri  
Herbert Hoover Dike, located in Florida

All dams determined to be of highest risk will undergo a dynamic peer review by an independent external panel to ensure USACE is taking the best approach to reduce risks to the public. USACE employs independent project reviews to provide additional insight to assist with its dam safety management and programming decisions.

USACE owns and operates 610 dams that serve a variety of purposes including navigation, flood control, water supply, irrigation, hydropower, recreation, environmental enhancement, and combinations of these purposes. USACE's primary objective in its Dam Safety Program is to maintain public safety by making sure its dams do not present unacceptable risks to the public.

The Dam Safety Program uses a risk-informed strategy to:

- prioritize dam safety studies, investigations and remedial fixes;
- prioritize program funding;
- manage and buy down risk with a cost-effective approach;
- use risk management in the routine aspects of the program;
- be situationally aware of the risks posed by USACE dams.

USACE asked an independent external panel of experts to review and assess these six dams and the panel's assessment of the remaining projects is ongoing. USACE will continue to actively work with state and local emergency managers to ensure emergency notification plans for communities affected are in place.

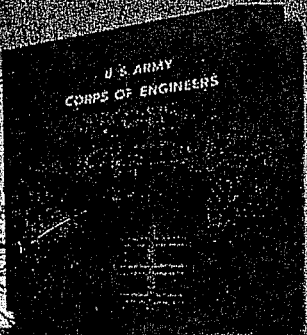
The *Wolf Creek Dam Consensus Report, Engineering Risk and Reliability Analysis*, can be found at <http://www.lrn.usace.army.mil/WolfCreek/>.

For Wolf Creek Dam project specific questions, please contact Bill Peoples at (615) 736-7834.

For questions about the *Wolf Creek Dam Consensus Report, Engineering Risk and Reliability Analysis*, please contact Keith Ferguson at (303) 237-6601.

-30-

*For additional information about the United States Army Corps of Engineers, please visit our Web site at [www.usace.army.mil](http://www.usace.army.mil).*



U.S. ARMY  
CORPS OF ENGINEERS

# Wolf Creek Dam Consensus Report Engineering Risk and Reliability Analysis

**April 11, 2007**

**Submitted to:**

**Mr. Eric C. Halpin, P.E.  
Special Assistant for Dam Safety  
HQUSACE, Attn: CECW-CE, 3L26  
441 G Street, NW  
Washington, DC 20314-1000**

**Submitted by:**

**DSAC Class I Dams  
Peer Review Panel**

**Jeff Bradley, P.E., D.WRE, PhD  
Donald Bruce, C.Eng., PhD  
Keith Ferguson, P.E., Vice Chair  
Steve Poulos, P.E., PhD, Chair  
James Talbot, P.E.  
John Vrymoed, P.E.**



Peer Review – Dam Safety Action Classification (DSAC) Group1

Wolf Creek Dam Consensus Report  
April 11, 2007

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The Wolf Creek (DSAC) Peer Review Team has completed its review in accordance with Contract requirements. All comments, responses, issues and concerns resulting from this Peer Review have been fully addressed.



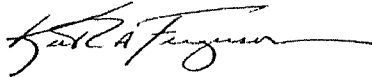
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Jeff Bradley, P.E., D.WRE, PhD



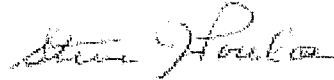
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Donald Bruce, C.Eng., PhD



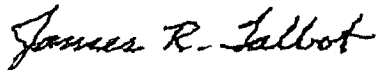
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Keith Ferguson, P.E., Vice Chair



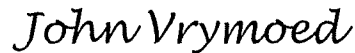
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Steve Poulos, P.E., PhD, Chair



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James Talbot, P.E.



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John Vrymoed, P.E.

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- Figure 1: Seepage Failure Mode Continuum
- Figure 2: Estimated Condition of Dam with Uncertainty Limits
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## Attachments

- Attachment A. References
- Attachment B. Summary of Data Source Opinions on Key Distress Indicators
- Attachment C. Site Visit Photos Referenced in Consensus Report
- Attachment D. Alternative Description of Events Leading to the Development of the Critical Embankment Foundation Seepage and Piping Failure Mode

## Executive Summary

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The DSAC (Dam Safety Action Classification) Peer Review Panel, (Panel) has found that the U.S. Army Corps of Engineers (Corps) Class 1 designation (Urgent and Compelling) of Wolf Creek Dam under the draft ETL 1110-2-XXXX “INTERIM RISK REDUCTION MEASURES FOR DAM SAFETY” is appropriate. There is compelling evidence that a piping failure mode has re-initiated, and is in an advanced “continuation” stage of development. At this stage of failure mode development, the Panel believes there is significant potential for failure of Wolf Creek Dam under the normal operating conditions. The time at which such a failure would occur is very difficult to predict. Therefore, it is essential to 1) take immediate short-term actions to avoid failure and to reduce risks to the public, and 2) to expedite investigations, design and construction of long-term repairs.

The conclusions and recommendations of the Panel are as follows:

1. **Lower Reservoir Level:** The reservoir water levels should immediately be lowered and maintained at a lower level until short-term corrective actions arrest further development of the failure mode and long-term corrective actions have been completed. The Panel believes that a target drawdown level of between 640 and 650 is needed to help avoid the development of a failure due to seepage through the embankment dam and its foundation. The Panel further recognizes that the selection of a target drawdown level must consider a number of factors, the most important of which is to prevent loss of life.
2. **Conduct Foundation Grouting Immediately:** The planned foundation grouting program is a critical short-term risk reduction program that must be completed as soon as possible under Monolith 37, under the embankment in the area immediately adjacent to Monolith 37, and in the area to the right of the point where the existing diaphragm wall was terminated.
3. **Improve Existing Instrumentation:** The entire investigation, piezometer and settlement instrumentation system and monitoring program for the dam, including the planned investigations and instrumentation to be installed as part of the grouting program should be independently reviewed as soon as possible. The system for measuring ongoing deformations of the dam crest and key areas along the downstream slope and the wrap-around section of the embankment is not considered adequate and needs to be substantially modified as soon as possible so that reliable deformation measurements can be obtained. Additional investigations and instrumentation are recommended in two “depression:” areas identified by the Panel including 1) a portion of the downstream wrap around section near the contact with the concrete dam, and 2) along the downstream slope near the end of the diaphragm wall to investigate the root cause of the depressions that have developed.
4. **Review Reservoir Restriction:** Once completed, the results of the supplemental investigation and grouting program, along with the supplemental instrumentation monitoring, should be independently reviewed to determine whether adjustments to the target reservoir drawdown level are appropriate.

## 1.0 Introduction

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### 1.1 Project Description

Wolf Creek Dam is a combination concrete gravity and earthfill structure located at mile 460.9 of the Cumberland River near Jamestown, Kentucky. The total length of the dam is 5,736 feet. The concrete section is 1,796 feet long, ties into the left abutment, and extends across the old river channel toward the right abutment. It has a maximum structural height of 258 feet (dam crest to base of concrete dam) and contains a gate control section, a powerhouse section, and non-overflow sections on both ends. US Highway 127 traverses the top of the dam. Normal storage in Lake Cumberland, created by the dam, is about four million acre-ft. Up to 6,089,000 acre-ft can be impounded at a maximum pool elevation of 760. It is the largest reservoir east of the Mississippi River, and the ninth largest in the United States.

The control section within the concrete gravity section contains a spillway with ten, 50-foot wide, by 37-foot high tainter gates and six 4-foot by 6-foot low level sluices. The top of the dam is at elevation 773, the crest of the spillway is at elevation 723, and the top of the tainter gates is at elevation 760. The invert of the low-level sluices is at elevation 562. Power can be generated when the pool elevation is at or above elevation 680. The powerhouse contains six turbines rated at 45,000 KW each (total 270 MW).

The earth embankment section of the dam extends 3,940 feet from the end of Monolith 37 of the concrete section across the valley to the right abutment. The earth section is a non-zoned compacted clay embankment with a maximum structural height of 215 feet.

A cutoff trench was constructed under the upstream shell of the dam by excavating to a depth of approximately 50 feet through existing alluvium and into the bedrock along a continuous Karst feature. The cutoff trench is known to contain numerous large voids along both the upstream and downstream sides that were created by solutioning of the limestone bedrock over millions of years. The cutoff trench was backfilled with compacted clay. No significant treatment of the voids upstream or downstream of the cutoff trench was performed during construction.

The dam and power plant were constructed between 1938 and 1952. Construction was stopped during World War II. Impounding of the reservoir began in December 1950. The project normally stores about four million acre-ft, with up to six million ac-ft at the maximum flood pool storage level. In 1967 and 1968, serious seepage problems developed in the foundation of the embankment section as evidenced by the development of sinkholes and

muddy flows in the tailrace. An emergency investigation and grouting program was completed shortly thereafter. The emergency grouting was not viewed as a long-term solution and a more permanent solution was sought. After convening a board of consultants in 1972 studying numerous alternatives, and then preparing a final design, the District completed construction of a concrete diaphragm wall between 1975 and 1979. During construction, due to cost concerns, the length and depth of the wall were reduced from the original design intent. Additional details of the seepage problems that developed and the remediation program that was completed are provided in Section 3.0.

## **1.2 References and Sources of Factual Data**

The Panel has reviewed summaries and technical interpretations contained in a variety of sources of information prepared by Corps personnel, their consultants, and appointed “Panels of Experts”. These sources of information are listed in Attachment A. The present Panel has relied on the accuracy of these summaries and technical interpretations and in particular the analysis of the distress indicators that have been identified, in formulating the opinions presented in this report. The Panel acknowledges that certain observations and information relating to the distress indicators is open to different interpretations, reflecting the accuracy and veracity of the data.

Therefore, the Panel has carefully considered the verbal and written opinions of all investigators who have been part of the ongoing investigations or who have previously reviewed and evaluated the condition of the dam. The Panel has prepared a summary of these opinions relative to key distress indicators, (presented in Attachment B) to support the historical basis of its opinions, conclusions and recommendations.

## **2.0 Site Visit (December 2006)**

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### **2.1 General**

Five members of the Panel (all except Dr. Poulos) visited the site with Mr. Jody Stanton of the District on December 11, and 12, 2006, to help develop opinions and recommendations, and preparation of this consensus report. A summary of the key findings related to our site visit is provided below. Illustrative photographs taken during the site visit and referenced in the text that follows are presented in Attachment C. Conclusions and recommendations that are based in part on the site visit are included in Section 8 – Conclusions and Recommendations.

### **2.2 Settlement of the Embankment Dam Crest**

The Panel observed a number of indications that the crest of the existing embankment dam may be actively settling in the area adjacent to Monolith 37. Photographs 5 through 8 illustrate a number of our observations in this area. The Panel also noted signs of possible crest settlement in the area just to the right of where the existing diaphragm cutoff wall was terminated (see Photographs 1 through 4). Settlement at these locations, if it is occurring, is a significant indicator with regard to the overall safety of the structure and the development of expert judgments of the progression of the piping and erosion failure mode.

The Panel believes that the current program of monitoring points, monitoring frequency, and the presentation of results have not been sufficient to accurately measure the total amount of settlement that may have occurred, the timeframe when the settlement occurred (pre 1967, 1967 to 1979, and 1979 to present), and changes in the rate of settlement. However, while there are challenges to interpreting and drawing conclusions from the existing information, the data for a number of the monuments, particularly in the area adjacent to Monolith 37, are significant with regard to the amount of settlement that has occurred and the rate of acceleration of settlement that may still be occurring. This is a recurrent theme of previous reports, as noted in Attachment B.

### **2.3 Movements of Monolith 37**

The Panel observed an opening (1/4 to 1/2 inch) along the upstream portion of the joint between Monoliths 36 and 37 (see Photograph 10) as well as evidence that the downstream portion of the same Monolith joints in compression (Photograph 9). These observations are consistent with the movement monitoring data for Monolith 37.

## 2.4 Settlements on Downstream Slope

The Panel observed a number of locations along the downstream face of the dam embankment where limited settlement may have occurred. The actual cause of the surface irregularities may be due to other surface disturbances that occurred as localized areas were shaped to provide access for drilling equipment, installation of surface drains, or during routine maintenance. However, it is noted by the Panel that two of these areas correspond with the location of known Karst features in the foundation of the dam and sufficient information does not exist to eliminate the possibility of ongoing settlement in the foundation associated with currently active foundation erosion processes. The two “depression” areas identified by the Panel include: 1) a mid to lower portion of the downstream wrap-around section near the contact with the concrete dam (see Photographs 11 and 12), and 2) along the downstream slope near the end of the existing diaphragm wall (Photograph 4). The Panel believes that at least these two areas should be further investigated with additional borings and instrumentation to determine the root cause of the slope irregularities.

## 2.5 Surface Erosion Features

A small erosion feature (approximately 3-feet in diameter) has developed in the wrap around section near the contact between the embankment materials and the concrete toe about 1/5 the distance up the slope above the powerhouse (see Photograph 13). There is also evidence of settlement near the base of this slope at the entrance of the groin drain to the groin drain energy dissipater structure. District and operations personnel have determined that the hole is due to concentrated surface drainage in this area entering a ubiquitous system of shallow vole holes and washing out material that has to be cleaned out at the catch basin below. They have excavated this in the past and have “firmly established” this to be the case. It also appears possible that the contact joint between the slab and dam is not completely sealed with a flexible caulking compound and water flowing in the drain is capable of eroding the embankment materials immediately below the joint. The behavior of this area should continue to be monitored to verify that more serious problems are not developing.

A line of wet areas was noted further up the slope of the embankment roughly aligned with the “depressed” area discussed above (Photographs 11 and 12). A picture of a typical wet area is shown in Photograph 14. District personnel have noted that this line of wet areas has been monitored for some time and appear to get worse during rainy periods and dry up during dry periods. They suspect that the cause is due to beam drainage problems and channeling of surface water through vole holes. The Panel notes that the location and alignment of these features are in an area that previously has not been explored or instrumented to any significant degree. The location and condition of these features should be mapped and further explorations and monitoring should be performed to determine if any significant changes are occurring.



## 2.6 Cable Tunnel Settlement

The Panel observed conditions along the exterior and interior of the cable tunnel. The Panel's observations suggest that the cable tunnel may have settled in an area approximately aligned with a notable Karst feature and previous sinkhole development. The settlement has lead to compression of a joint and extrusion of joint filler material that appeared to be at a location of maximum settlement and tension cracking of the tunnel at the extreme (outer) limits of the settlement where the cable tunnel would be subject to bending and the development of tensile stresses. In the year 2000, the District sealed the leaky joints and installed crack survey pins across some of the cracks and survey monuments along the floor of the cable tunnel. Monitoring of these items has indicated no significant movements in the tunnel since they were installed.

The Panel has not evaluated the settlement monitoring data that have been gathered by the District. However, based on our observations, we concur with the District's opinion that the settlement could be the results of 1) erosion and piping of foundation material, or 2) long-term consolidation. The cracking that would result from either of these mechanisms could be influenced by the location of a bedrock knob and the change from a rock to soil bearing profile along the base of the conduit.

The Panel also believes that the settlement attributable to foundation erosion could be the result of two different erosion mechanisms including 1) piping and erosion of soils adjacent and immediately under the conduit through cracks or the foundation drain system, or 2) a deeper, previously active erosion process along the Karst feature where sinkholes developed. The latter of these two mechanisms would indicate continuation and/or progression of foundation erosion threatening the integrity of the dam and a very serious dam safety concern.

The Panel recommends that monitoring of the cable tunnel should continue on a regular basis. Should any additional settlement or distress occur, the settlement should be evaluated and the root cause determined. The ability of the existing instrumentation monitoring program to determine the root cause associated with these potential mechanisms should be independently reviewed. If appropriate, the instrumentation system and monitoring program (including the frequency of readings) should be modified.

## 2.7 Drawdown Capacity

Information presented by operations personnel at the site suggest that the existing power generation facilities and sluiceways may have the ability to draw down the reservoir at a significantly higher rate (0.5 to 1 foot per day at a maximum reservoir water surface elevation of 723) than was previously represented to the Panel.

## **2.8 Rock Core Examination**

Rock cores were examined from one boring drilled in the right abutment and another boring drilled in the area immediately east of Monolith 37 of the concrete section of the dam. The rock cores were generally very competent with little sign of solutioning and infilling materials. The borings were located by District staff in areas between Karst features for the purpose of determining the unconfined compressive strength of the rock to help determine if hydromills were feasible and to provide these data to contractors (i.e. for future cut-off wall construction). The Panel anticipates that rock cores from boring from an area where a Karst feature was encountered would show substantially different characteristics.

## **2.9 Wet Areas**

Not all of the wet areas and locations of historical seepage were observed. The Panel understands that the wet areas develop during higher reservoir storage levels. The wet areas and locations of historical seepage that were observed had dried up considerably from what is typically noted when normal operating reservoir levels are around elevation 723 in the early summer. The reservoir level at the time of this site visit was about elevation 693 (approximately 30 feet lower than the maximum normal pool during summer but within the normal winter drawdown range).

It was reported that generally the wet areas do not have flowing water, but show wetness and some ponding. Areas of seepage along the riverbank downstream from the power switchyard have flowing water during low river levels, but are submerged during high river levels that may occur daily because of the power generation schedule. It is not known how much of the seepage on the riverbank is from recharge during high river levels, or leakage from the fish hatchery, as opposed to seepage through Karst features of the foundation. Generally, observable seepage rates were very low in the areas that were seen during the site visit. It is not known how much seepage may discharge further downstream in the river from the continuation of Karst features in the foundation.

## **2.10 Concrete Dam Gallery Inspection**

Panel members inspected the galleries in the concrete section of the dam. Very little movement has occurred on the joints between Monoliths of the dam and very little leakage is occurring at most of the joints.

The exception is at two joints near the powerhouse where copper waterstops apparently have broken loose to let substantial water leak through these two joints. Currently, the leakage from the broken waterstops is being pumped out of the gallery from a nearby sump without any detrimental effects to the dam. It was also noted that discharge from the foundation drains into the gallery is very minimal. The District has noted that the foundation drains in

the concrete section are monitored and maintained on a regular basis. Uplift pressures are being monitored by a series of uplift cells and these data, like the leakage from the foundation drains, have been consistent over many years. The drains were last cleaned in 2003.

## 3.0 History of Seepage Issues

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Uncontrolled seepage through the rock foundation has threatened the stability of the 3940-foot long earth embankment. The original design and construction techniques used at Wolf Creek Dam followed the standard of practice for dams on Karst foundation in the 1930s and 1940s. However, several aspects of the foundation design have subsequently contributed to the development of serious seepage and piping problems as has been the case for a number of dams on Karst foundations that were designed during the same period.

The dam's limestone foundation is riddled throughout with an interconnected system of open Karstic (voids) features caused by millions of years of solutioning. These features range in size from fractions of an inch to more than 40 feet in width and height. At the time the dam was constructed, these Karst features were filled or partially filled with residual soil. Under the pressure of the reservoir head, which typically ranges between 175 and 200 feet, piping from high gradients or internal erosion has been initiated through these Karst features, removing the infilling material.

In 1967 and 1968, the symptoms of internal erosion were observed under the downstream slope of the embankment. During this time, a sinkhole developed on the downstream right toe and two sinkholes developed on the random fill above the switchyard that extended from the embankment surface through 40 feet of alluvial and fill material to the top of rock. These sinkholes were preceded by wet areas and muddy flows in the tailrace. Additional wet areas and seepage were noted along the area downstream of the embankment. The total extent of damage that occurred in the dam and foundation prior to grouting and cutoff wall construction was not determined. Erosion and piping of the Karst infilling materials may have extended up to, and through the original core trench of the dam.

Responding to the near dam failure in 1968, the Corps embarked on an emergency exploration and grouting program from 1968 to 1970. Most of the 290,000 cubic feet of grout solids were placed in the heavily solutioned rock in the area where the embankment wraps around the end of the concrete Monoliths (near the end of Monolith 37).

Reportedly, "the grouting saved the dam". However, a "permanent" cutoff was desired. A deep concrete wall was installed between 1975 and 1979 in two contiguous sections. Another wall was located downstream between the switchyard and the tailrace to protect the switchyard foundation from the surging and erosion during power generation. The main wall was built from the crest of the embankment where it connects to the end of the concrete section of the dam and extends approximately two-thirds of the distance toward the right abutment. There is evidence that the main concrete wall installed from the crest of the dam

did not cutoff solution features under the end of the concrete section of the dam, did not extend far enough toward the right abutment, and most likely did not extend deep enough into the bedrock to intercept all major Karstic features. The length and depth of the wall (maximum 280 feet) were determined at the time by technological and economic constraints.

Following remediation, seepage and other indicators of potential piping problems have progressively worsened over the years. Initially, the piezometric levels downstream of the crest wall did not reduce as expected and some have gradually increased, indicating seepage pressures are increasing downstream of the wall. Downstream wet areas and seepage as evidenced by the number and size of wet areas have gradually returned to nearly the levels that existed before the emergency work was completed. Settlement of the crest of the embankment is arguably occurring near both ends of the existing main concrete wall, and is highest near the end of the concrete section at Monolith 37. Soft areas have been found in the lower reaches of the embankment during recent investigation drilling. Seepage on the river bank below the switchyard has increased causing some instability of the river bank.

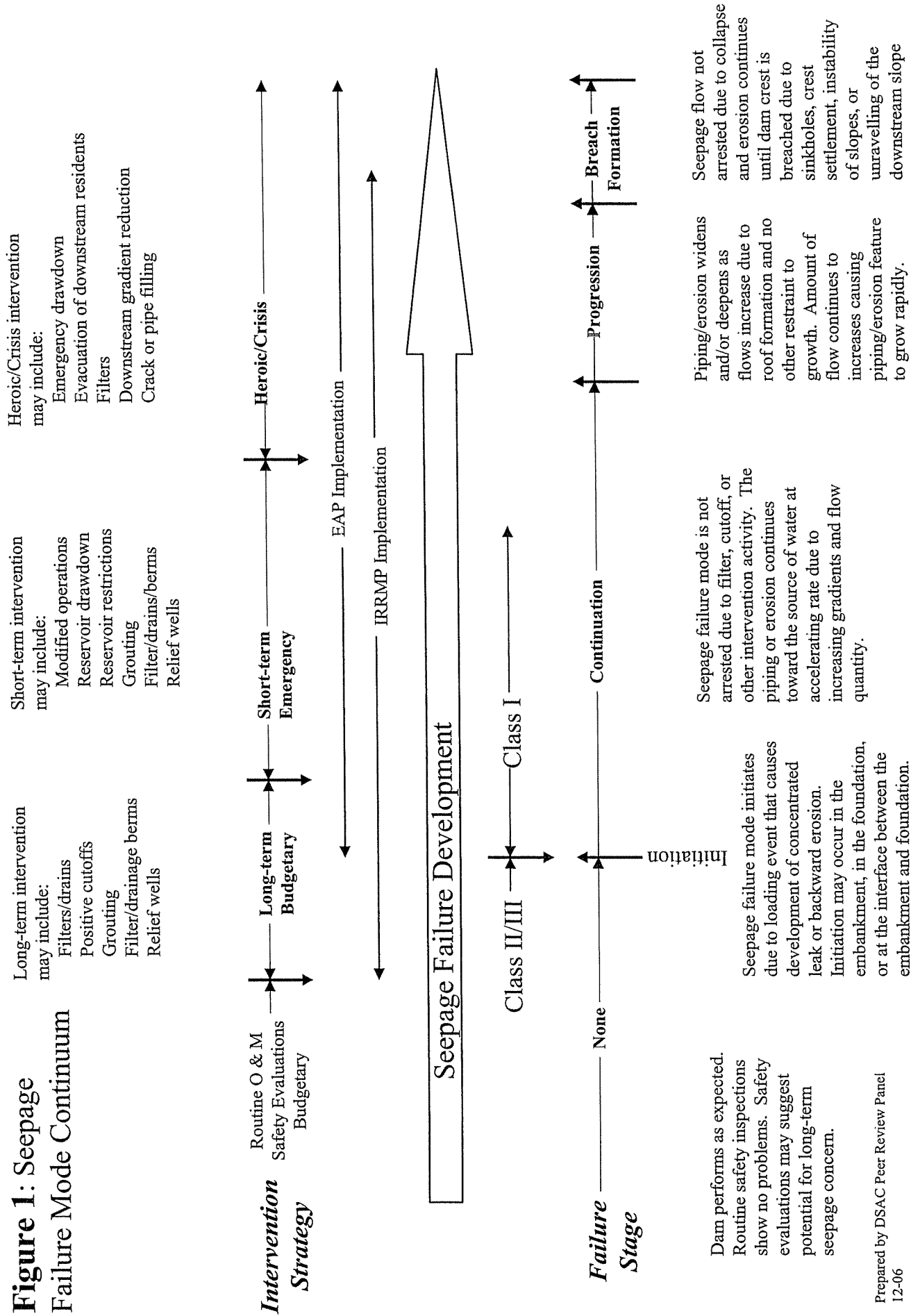
Major rehabilitation has been proposed to mitigate the worsening conditions that appear to be approaching those that existed before the previous emergency work was performed. It is noted that, due to different interpretations of these “indicators of failure”, there is not yet consensus between all parties involved (i.e. District, Headquarters and the Panel) as to the degree and extent of worsening seepage conditions since 1979, as noted in Section 1.2.

## 4.0 Graphic Depiction of Continuum of Failure Timeline

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The Panel has developed a graphical depiction of a seepage failure mode continuum and has presented this depiction in a separate memorandum (DSAC Peer Review Panel, December 14, 2006). The failure continuum summarizes four stages of failure development and three corresponding intervention strategy categories as seepage characteristics progress along the continuum. The continuum is illustrated on the Figure 1.

**Figure 1: Seepage Failure Mode Continuum**



## 5.0 Safety in Context of Failure Continuum

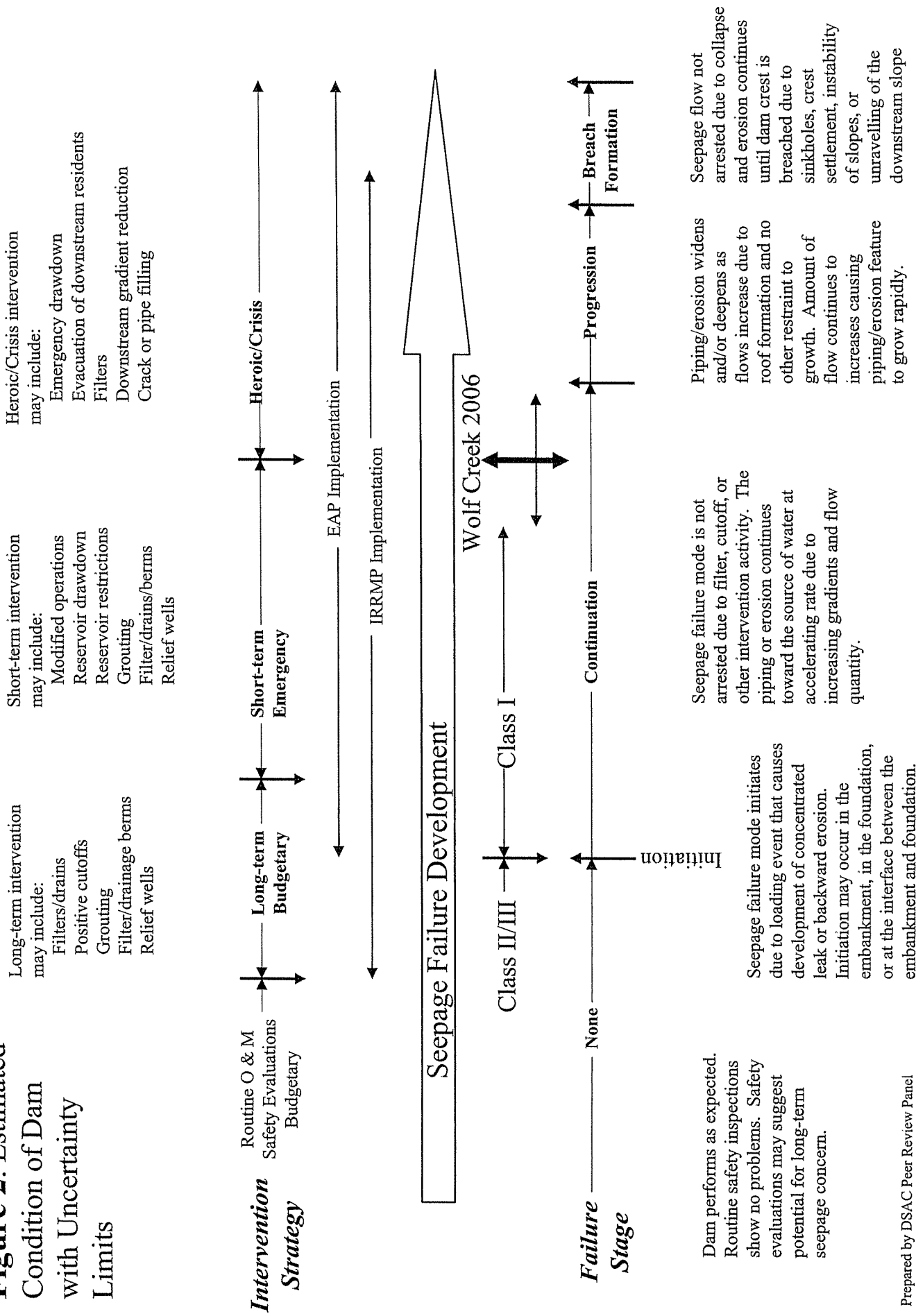
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The Panel believes that the current condition of the Wolf Creek embankment is as shown in the failure mode continuum diagram provided on Figure 2. The information on Figure 2 indicates that a seepage related failure mode has re-initiated and is in an advanced continuation stage. The confidence interval of the Panel's current assessment is also shown on Figure 2. Additional comments on the Panel's assessment are contained in a separate memorandum that has been prepared and submitted to the Corps (December 14, 2006).

To further clarify the timeline related to the development of a seepage/piping related failure, the Panel has also developed an illustrative histogram whereby the seepage failure stage at Wolf Creek Dam has been given a numerical score and plotted with time. This histogram is shown on Figure 3. A score of zero represents seepage failure initiation and the beginning of the continuation stage of failure development, while the scores of 100 and 140 represent the onset of the Progression and Breach failure stages, respectively. The changes in the failure stage points on the Histogram correspond to times of intervention (remediation) during the life of the project and the subsequent deterioration along the continuum that is occurring. The last data point represents completion of the recently initiated grouting program and construction of the planned new diaphragm wall. This data point is judged commensurate with a score of 20, after which the score is estimated to increase with time, at a rate that will be slower than the rate of deterioration that starts at the completion of the existing diaphragm wall in 1979.



**Figure 2: Estimated Condition of Dam with Uncertainty Limits**



# Wolf Creek Dam Histogram

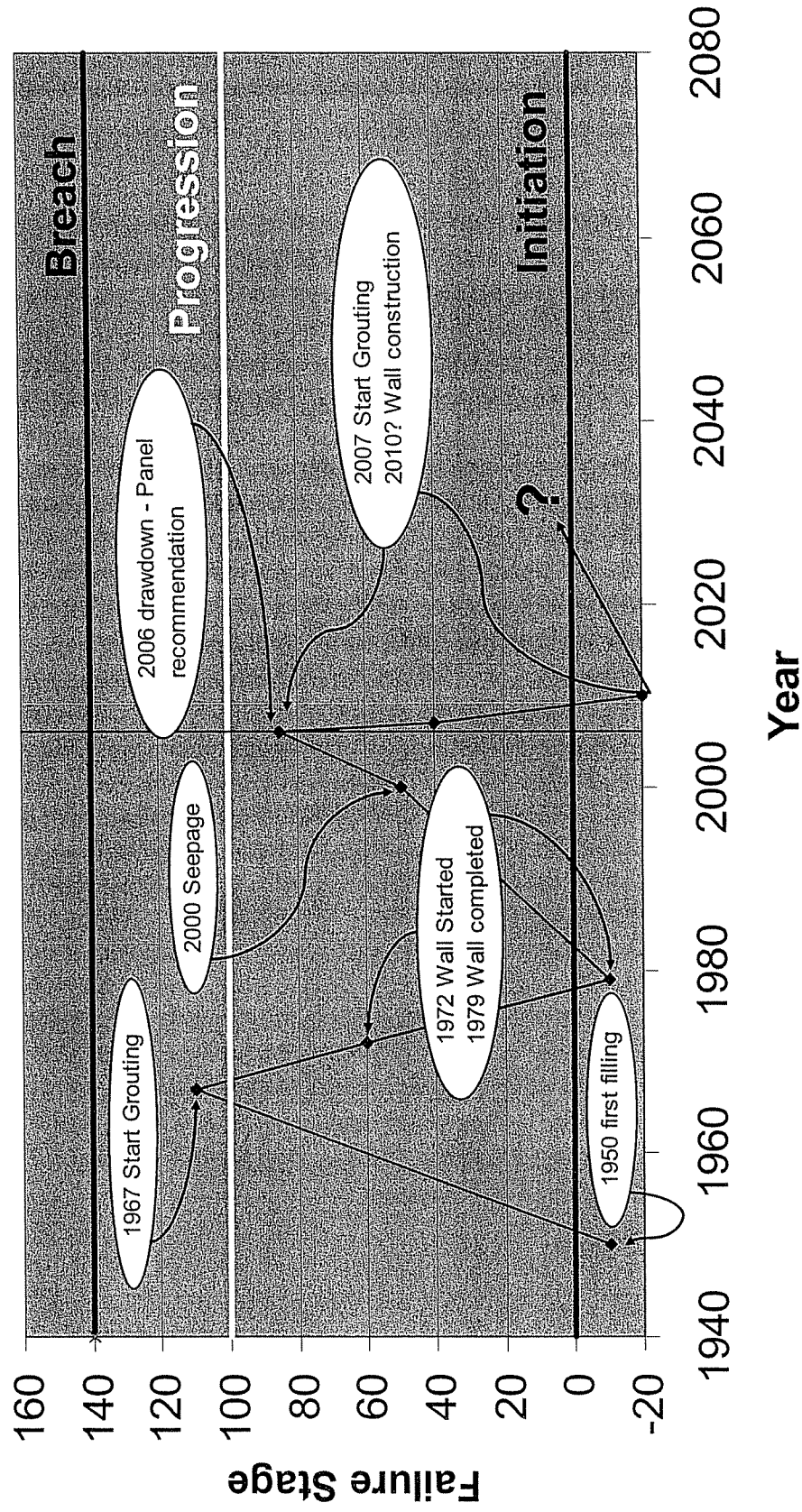


Figure 3: Timeline of Failure Stages

## 6.0 Dissenting Views

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Members of the Panel have been contractually provided a framework to express a dissenting view or views in the form of a “Non-concurrence” report. This report represents a “consensus opinion” of the entire Panel. There are no dissenting views by any member of the Panel. Variations in Panel member opinions are represented by the confidence band presented on Figure 2.

## 7.0 SPRA and Proposed Risk Reduction/Mitigation Measures

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### 7.1 Failure Modes

In support of the SPRA (Screening for Portfolio Risk Analysis) completed by the Corps, the Panel finds that all potential failure modes have been identified.

### 7.2 Failure Modes of Primary Concern

The Panel believes that the following potential failure modes are of primary concern:

- Embankment – Foundation Seepage and Piping
- Embankment – Stability
- Concrete Gravity Section – Foundation Seepage and Piping
- Embankment – Embankment Seepage and Piping

With regard to the first failure mode above (Embankment – Foundation Seepage and Piping), while there are a number of locations along the embankment where this failure mode may be developing, the locations of primary concern are 1) the embankment foundation immediately adjacent to Monolith 37, and 2) the embankment foundation just beyond the end of the existing main cutoff wall. The Panel judges the dam to be in a **critically near failure** condition related to this failure mode, requiring immediate corrective actions as discussed further below.

The Panel believes the Corps has presented good descriptions (e.g. the Major Rehabilitation Report (2005) and Panel briefing presentation (October 6, 2006)) of the events that would lead to the development of the failure mode of primary concern listed above. An expanded description for the Corps' consideration is provided in Attachment D to this report.

### 7.3 Proposed Risk Reduction Measures

The Panel has evaluated the proposed risk reduction measures by sorting them into three general categories; 1) immediate (heroic), 2) short-term, and 3) long-term.

### **7.3.1 Immediate Risk Reduction Measures**

The Corps is assessing immediate (pool drawdown and operating restriction) measures to intervene with the further development of the failure mode of primary concern. The Panel believes that it is critical that the Corps evaluate alternative means to lower the reservoir and to maintain the lowered level throughout the year. Following the initial briefing of the Panel, we recommended a drawdown to an elevation between 610 and 650 based on a simplified estimate of what may be necessary to arrest the foundation erosion process. Since then, the Panel has reviewed and evaluated additional information and performed a site visit. As a result, we have revised our recommended drawdown level to elevation 640 to 650. The Panel recognizes that there are many important considerations related to establishing a target reservoir restriction level including 1) potential impacts of dam failure at the drawdown level, and 2) the loss of flood control, hydropower, water supply, and recreation benefits.

The Panel recommends that flood routings for a range of possible failure breaches with and without an upstream flood, should be conducted to further support the decision regarding the drawdown elevation.

### **7.3.2 Short-term Risk Reduction Measures**

The Panel concurs with the proposed short-term risk reduction program of foundation grouting beginning in the area adjacent to and under Monolith 37. The Panel cannot over-emphasize the urgency of this action (combined with reservoir drawdown). Grouting should start immediately. The grouting should be done using the most up-to-date techniques to fill voids that have developed since the previous grouting work and cutoff seepage around the existing cutoff wall. Information should be collected during drilling operations for the grouting that will allow further evaluation of the foundation conditions and provide information for design of the new deep wall proposed for long-term risk reduction.

The Intelligrout (or equivalent) system is recommended for collecting information and producing the appropriate grouting results similar to other recent Corps' drilling and grouting projects, such as Patoka, Mississinewa and Clearwater, where the successful contractor was procured by a "Best Value" approach. Further, the proposed grouting program should be independently reviewed. We expect that an independent review would address the following:

- Grout hole orientation concepts and patterns (given the clay-filled vertical features in the rock).
- Need for "blow out" preventers in the gallery, while conducting drilling below reservoir levels.
- Definition of the rheological properties of the "stable grouts" appropriately specified.
- Definition of the computer-controlled system.

- Water pressure testing requirements (single and multipressure)
- Consideration of refusal criteria for the grouting of each stage.
- Definition of target residual permeabilities

The Panel has stated that, if the District elects to limit the target drawdown of the reservoir to a higher level because of other considerations, then the grouting program should be expanded as appropriate (including the limits of the grouting, spacing of grout holes etc.), accelerated and optimized, given our level of concern about the status of the structure on the continuum of failure. To maximize the ease of the grouting work, the reservoir should be drawn down as much as reasonably practicable during grouting operations. By starting the grouting operations immediately, and using appropriate technical resources for data gathering and evaluation, the Panel believes that District is taking appropriate steps with respect to both pushing ahead with this remedial work and potentially increasing its effectiveness. We believe that the "Panel of Experts" being convened by the District (separate from the DSAC Peer Review Panel) will find the quality of data produced by computer based systems to be especially valuable in their appraisal of progress as indeed has been experienced in the other projects listed above.

The Panel further recommends that the system of instrumentation (piezometers and settlement monuments) and the approach to monitoring should be critically and independently reviewed and altered as appropriate as soon as possible. Appropriate additional investigations and instrument installation should be performed prior to grouting so that a baseline of data is established against which the effects of grouting can be assessed.

### **7.3.3 Long-term Risk Reduction Measures**

#### **7.3.3.1 Alternatives Analysis**

The Panel has reviewed information provided by the Nashville District on the Alternatives Analysis performed for the Wolf Creek Project – (Major Rehabilitation Evaluation, Briefing Document, dated July 2004). The report states that all conceivable plans for treating the foundation problems beneath the Wolf Creek earth embankment have been considered. It summarizes nine alternative plans. Cost estimates were developed for six of the plans that were considered feasible. Based on these studies, it was concluded that a composite cutoff wall was the best alternative for long-term risk reduction.

The Panel notes that the studies forming the basis of the Alternatives Analysis were conducted in 1972. The District has further indicated that these studies were updated for the 2005 Major Rehabilitation Report. The update was limited to escalating the costs to their current values for the replacement of the embankment option and that the costs for the other alternatives included MCACES level cost analyses.

The Panel recommends that a new Alternatives Analysis for the Wolf Creek Dam project be conducted. A new Alternative Analysis should, at a minimum, integrate the following:

- Consideration of long-term risk, over at least a 25 year period, by incorporating all or pertinent elements of the current risk assessment study
- Selection of the preferred alternative based on “best value,” also over a period of not less than 25 years, instead of present day least cost values
- Broaden the alternatives. At a minimum, consider 1) replacement of the existing embankment dam with an RCC Dam tied into the existing concrete structure, and 2) major rehabilitation of the existing embankment dam by removing and replacing the downstream portion of the embankment, alluvium, and weathered bedrock starting on the upstream slope of the existing embankment at approximately elevation 740. A number of the elements of this design would be similar to the rehabilitation concept that was developed and implemented by the Corps at Fern Ridge Dam in Oregon in 2004. For this alternative, provide a positive cutoff wall through the Leipers formation beginning at the prepared bedrock surface and grout the Cathey’s formations below the wall. Prepare and treat the exposed bedrock surface with particular emphasis on robust treatment of exposed Karst features with backfill concrete and placement of a concrete slab on the surface of the bedrock to isolate the embankment from the Karst. Replace the embankment incorporating a blanket and chimney drain in the cross-section
- Incorporate the Corps’ 3 R’s in the evaluation process and the selection of the preferred alternative
- Consideration of the Panel’s comments on the cutoff wall provided in Section 7.3.3.2 below

#### **7.3.3.2 Composite Cutoff Wall Alternatives**

The Panel generally believes that a composite cutoff wall (i.e. grouting plus concrete diaphragm) is a viable long-term risk reduction alternative. The following comments however, are offered for consideration in the Alternative Analysis for such a wall:

- The proposed wall is a single line-of-defense. The Panel recognizes the options for a second line-of-defense are very limited and potentially very expensive. If such a single line of defense system is adopted, it should be recognized that further treatment may be necessary in the future. As discussed further below, the Panel encourages the Corps to evaluate other alternatives for the existing embankment dam section that would provide a solution with multiple lines-of-defense for this particular site.
- Required depth of wall and related feasibility of construction is a major concern. The design objective for the depth of the wall and grouting below the wall must be fully addressed. There must be a high degree of confidence that the rock below the toe of

the wall has an acceptably low, uniform permeability either naturally or as a consequence of a well-conducted grouting program. The feasibility of wall construction techniques should be evaluated when the additional information from the grouting program is available.

- A full-scale test section should be conducted to confirm constructability and locally evaluate the performance of a new wall.
- Special attention must be paid during construction to the hydrogeological response of the entire dam/foundation system. The wall will be built with some sort of progressive “closure” system such as primary and secondary panels or piles. The early panels or piles may redirect and focus foundation flow in the Karst and trigger erosion in areas of concentrated flow that threaten the construction work or the safety of the dam.
- The integrity of the wall must be proved by appropriate verification methods following construction such as coring and testing of the wall. Localized remediation should be conducted as appropriate.
- Damage to the existing dam needs to be further evaluated. The condition and performance of the upstream and downstream shell portions of the embankment are vital to the long-term safety, reliability, and effectiveness of a cutoff wall system. The Corps should assess the condition of the upstream and downstream shells and verify that potential settlement or instability will not threaten the performance of a new cutoff wall system. Damaged portions of the embankment and embankment foundation may require remediation to provide the required support and long-term performance of the cutoff.
- A carefully designed and implemented instrumentation monitoring program will be required to confirm the safe long-term performance of the dam.
- A positive cutoff (W.F. George type) wall should be considered under the concrete dam section, again, depending on an evaluation of the drilling and grouting work currently contemplated in this area.

## **7.4 Risk-based Reservoir Pool/Operation Restrictions**

### ***7.4.1 Are the proposed risk-based reservoir pool/operation restrictions appropriate?***

At the time of the initial Panel briefing in early October, 2006 the Panel understood that the Corps had not proposed any substantial reservoir pool/operation restrictions. Operations had been modified in 2005 to take out the peaks in the early spring period and to hold the lake elevation as closely as possible to the operation band of the hydropower curve. Subsequently, the Corps has decided to drawdown the reservoir to elevation 680. As noted in Section 7.3.1 above, the Panel believes that it may be necessary to draw the reservoir down to elevation 640 to 650 in order to adequately reduce the seepage forces acting in the



foundation of the dam, arrest the development of the seepage and piping failure modes, and to minimize further damage to the dam and dam foundation until long-term corrective actions are completed.

#### ***7.4.2 Are there considerations related to the reservoir pool/operation restrictions that the Panel member would like to comment on further?***

As noted in Section 7.3 above, the Panel recognizes that the decision on the level of drawdown and the corresponding structural modifications required to maintain that drawdown is complex and involves a number of technical, flood control, water supply and other stakeholder considerations. The time required to achieve any significant drawdown may be substantial depending on inflow conditions. If it has not already been done, the current EAP (Emergency Action Plan) should be reviewed and updated as appropriate. Table top exercises should be performed to make sure that local emergency action personnel are fully trained on the elements of the plan and its implementation should it become necessary. The public should be periodically informed of the status of the EAP and any changes that are occurring. In this regard, it is clear that the District is engaged in an effective relationship with local new media.

### **7.5 Time for Response**

#### ***7.5.1 Service Life Without Intervening Actions***

The Panel has concluded that the effective service life of the embankment dam under normal operating conditions (i.e. lake levels above elevation 680) has ended. Without intervention, the Panel estimates that there is a very high likelihood of breach formation and loss of reservoir through the embankment section and its foundation within the next 5 years. This is substantially less than the time that will be required to complete the planning, design, and construction of short- and long-term corrective actions if full pool operations continue.

#### ***7.5.2 Recommended Timeframe to Implement Actions***

The Panel concurs with the proposed upgraded foundation grouting program and recommends that this program be implemented with utmost urgency.

The timeframe required to complete the design and construction of the preferred alternative for the embankment section should be minimized to the greatest extent possible. The reason for this degree of care is that no one can predict when this dam might progress to failure. Furthermore, a careful monitoring program should be established to improve the ability to judge if the failure condition is worsening.

In addition, the Panel believes there are important feasibility issues that will impact the long-term reliability of the proposed wall. As noted in Section 7.3.3.1, we believe that it would be

prudent to revisit the previous alternatives analysis that was performed for the project to determine whether or not a rehabilitation concept that provides additional lines-of-defense would be a “best value” investment.

The Panel also believes there may be significant safety issues associated with the existing concrete gravity dam section and that a possible seepage and piping failure of its foundation is a significant short- and long-term risk to the structure. The deterioration of the gravity section foundation requires additional evaluations and alternatives to the proposed foundation grouting program should be considered by the Corps as noted in Section 7.3.3, above.

## **7.6 Distress Indicators/Triggering Events**

The Panel believes there are five indicators that suggest that a piping/erosion failure mode has re-initiated, is well into the continuation phase and may be very close to entering the progression phase of the seepage/piping failure mode continuum as described in Section 5. These indicators are complementary and consistent in terms of the conclusions that may be logically drawn relative to the current stage of failure development. They include:

- Increasing seepage
- Settlement of the crest and downstream slope of the dam
- Soft areas found in multiple borings in and under the dam.
- Rising piezometer levels downstream of the cutoff wall previously installed
- Seepage instability of the river bank

The Panel believes that the Corps has identified a number of the most significant distress indicators/triggering events associated with the failure mode of primary concern. In addition, 1) longitudinal cracking or slide development in the upstream or downstream slopes of the dam, and 2) development of whirlpools in the reservoir should be considered significant indicator/triggering events. The Panel offers the following additional comments for the Corps' consideration:

- If water that is aggressive to calcium carbonate exists in the reservoir, solutioning of the bedrock upstream and under the original core trench as well as in the vicinity of the existing cutoff wall may be contributing to the development of foundation seepage and changes in instrumentation reading at certain locations. The Panel's experience suggests that the potential for solutioning of the bedrock at this site is very low. However, while it is certainly a secondary consideration, the Panel recommends that the Corps further evaluate this issue and include it as appropriate in the instrumentation monitoring and remediation evaluation process.
- If possible, seepage monitoring should include some measures of seepage water quality including turbidity. Seepage monitoring should be done at least bi-monthly.

During each time of measurement, the water flow rate and turbidity must be measured on an hourly basis for approximately 48 hours in succession in order to observe any intermittent piping that may be occurring.

- It is likely that the identified indicators/triggers will continue to be observed and to a greater degree until short- and long-term risk reduction measures are implemented. The Corps should determine what changes in the indicators would warrant implementation of the next warning/action levels of the EAP. This would include changes in key instrumentation readings.
- In addition, the Corps should develop a list of the most significant distress indicators/triggering events associated with the concrete section, particularly in the areas of Monolith 37 and other locations where there are known and suspected foundation Karst defects.

## **7.7 Questions Asked of the Panel**

### ***7.7.1 Is the proposed remediation with a cutoff wall appropriate?***

An updated Alternatives Analysis will determine if a cutoff wall is the appropriate remediation alternative. Absent this analysis, the Panel believes that the proposed cutoff installation will be essential. However, there is significant design, dam safety, constructability, and schedule issues and concerns related to the proposed composite cutoff wall system as discussed in Section 7.3.3 above, that remain to be resolved.

The Panel further notes that the short-term grouting program proposed by the Corps will provide an excellent opportunity to gather additional information related to the existing wall performance and condition, as well as general foundation deterioration that has occurred. The Panel encourages the Corps to take maximum advantage of this opportunity and to make the grouting program information available at the earliest possible time for peer review.

### ***7.7.2 Residual risk in final product due to existing embankment and foundation damage?***

The Panel believes that the depth design objective for the proposed composite cutoff wall system has not been fully established. Further, current technology for constructing deep walls in rock may not allow for deep enough construction to eliminate the risks associated with Karst in the Leipers and Cathy's formations. If the cutoff is not constructed deep enough, a relatively short term improvement in the reliability of the dam will be achieved, and it will only be a matter of time before seepage problems re-develop. This is exactly what happened in the 1975-1979 remediation phase. At this time, a total depth of around 300 feet is judged to be the practical maximum for the type of wall that can be built in these conditions (assuming that the rock is too hard for hydromill excavation to greater depths).

The Panel also notes that a reduction in the pressures in the existing dam and foundation downstream of the short-term grouting or long-term cutoff wall construction could accelerate the collapse of any existing open Karst features leading to further damage to the dam and the development of slope stability issues. As noted above (Section 7.3.3), it is critical to assess the damage that has occurred to the embankment and foundation both upstream and downstream of a proposed cutoff wall system and determine the need for embankment and foundation remediation to improve the long-term reliability of the dam.

**7.7.3 Reliability of cutoff wall? Corps does not have a set position on this like the USBR  $1 \times 10^{-4}$ .**

The Corps has not established a position on the required reliability of dams, such as the USBR position of a  $1 \times 10^{-4}$  annualized probability of failure. The Panel does not have sufficient information to develop an estimate of the annualized probability of failure (reliability) for the proposed risk reduction alternative. The Panel does, however, offer the following comments with regard to reliability:

- In general, the reliability will be improved by installing the composite cutoff wall to greater depths than proposed.
- It may only be possible to achieve the desired reliability by replacing the existing embankment section with one of the two alternatives mentioned in Section 7.3.3.1 or other alternatives which incorporate foundation excavation, preparation, and construction of a positive cutoff wall. The elevation to which such a cutoff wall can be constructed would be lower for the two alternatives mentioned in Section 7.3.3.1 than can be achieved through the existing embankment and thereby provide for the desired reliability

**7.7.4 Is an embankment dam ever appropriate in this environment?**

The Panel generally believes that the design of this embankment dam and others of similar design is not appropriate for the foundation conditions that exist at this site. Those conditions include:

- A well-developed Karstic foundation material extending to depths that were not fully penetrated by a positive cutoff wall
- The presence of overburden under the upstream and downstream slopes of the embankment
- Failure to effectively treat Karst features under the central, and upstream and downstream zones of the dam in order to protect overburden and embankment materials from collapse or erosion processes in these features

If extensive treatments are employed to prevent the erosion of embankment materials and the formation of sinkholes in the embankment dam, it may be possible to improve the reliability of an embankment dam on a Karstic foundation. These treatments may involve concrete filling of voids under the embankment and a substantial layer of dental concrete to protect the embankment from erosion at the foundation contact. A durable cut off through the underlying Karst features is essential.

#### ***7.7.5 Feasibility of replacing/reinforcing embankment with an RCC dam?***

The Panel recommends that the Corps evaluate an alternative RCC (roller compacted concrete) dam at this site for comparison to the proposed risk reduction alternative of the composite cutoff wall in the Alternatives Analysis. While there are very significant considerations related to the excavation and preparation of a suitable foundation for an RCC alternative, it would offer a significant increase in reliability and safety. Additional comments with regard to an RCC replacement dam alternative include:

- Foundation excavation objective will be a significant consideration and will likely require a positive cutoff of the Leipers formation. Significant over-excavation and treatment of existing Karst and damaged foundation areas should be anticipated.
- Significant reservoir drawdown will be required with corresponding loss of reservoir benefits. In addition, a large cofferdam may be required to complete the transition from the existing concrete section to the new RCC section, depending on the extent of the drawdown.

#### ***7.7.6 Are risk-based costs an appropriate means of assessing the best remediation option?***

Incorporation of risk-based costs in an Alternatives Analysis is appropriate and desirable for assessing the best remediation option. Present day costs and short term impacts should be a secondary consideration to providing public health and safety and restoring the long-term function of this valuable resource. It is a safe assumption that the value of benefits this project provides such as flood protection, recreation, and power generation will increase in time.

The Panel notes that consideration of risk-based costs in the decision making process can be very informative. Our experience suggests that such considerations may reinforce the desirability of a more costly solution that provides significantly higher long-term reliability in this challenging geologic environment. Our experience further indicates that it is critical to remain objective in the evaluation of alternatives and to avoid the introduction of any bias due to external and/or special interest pressures.

## 8.0 Conclusions and Recommendations

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The Panel has found that the Corp's Class 1 designation (Urgent and Compelling) of Wolf Creek Dam under the draft ETL 1110-2-XXXX "INTERIM RISK REDUCTION MEASURES FOR DAM SAFETY" is appropriate. There is compelling evidence that a piping failure mode has re-initiated, and is in an advanced "continuation" stage of development.

The Panel believes there is significant potential for failure of Wolf Creek Dam under normal operating conditions. The time at which such a failure would occur is very difficult to predict. Therefore, it is essential to 1) take immediate short-term actions to avoid failure and to reduce risks to the public, and 2) to expedite funding, investigations, design and construction of long-term repairs.

Other conclusions and recommendations of the Panel are as follows:

- **Lower Reservoir Level:** The reservoir water levels should immediately be lowered and maintained at a lower level until short-term corrective actions arrest further development of the failure mode and long-term corrective actions have been completed. Based on information that has been provided to the Panel including instrument readings and estimates of seepage gradients in critical locations, the potential erodibility of Karst infilling and previous grout materials, and the characteristics of the diaphragm wall, we believe that a target drawdown level of between 640 and 650 is needed to help avoid the development of a failure due to seepage through the embankment dam and its foundation. This is the failure mode that is most critical for this dam. The Panel further recognizes that the selection of a target drawdown level must consider a number of factors, the most important of which is loss of life. The loss of benefits to upstream users of the water in the reservoir, loss of generating ability, and the loss of property values both upstream and downstream also should be considered.
- **Start Foundation Grouting Immediately:** The planned foundation grouting program is a critical short-term risk reduction program that must be completed as soon as possible. If the Corps determines that a target drawdown level of 640 to 650 is not practical, and that a higher target storage level of about 680 is appropriate, the Panel recommends that the foundation grouting program be completed by May 30, 2007 under Monolith 37, under the embankment in the area immediately adjacent to Monolith 37, and in the area to the right of the point where the existing diaphragm wall was terminated. The Intelligrout (or equivalent) system is recommended for collecting information and producing the appropriate grouting results similar to other

recent Corps drilling and grouting projects, such as Patoka, Mississinewa and Clearwater, where the successful contractor was procured by a "Best Value" approach.

- **Provide Flood Routing and Consequences Evaluation:** The Panel requests the opportunity to review the results of the downstream flood routing and consequence evaluation as soon as available in order to finalize recommendations related to a target reservoir drawdown level.
- **Improve Instrumentation:** The entire investigation, piezometer and settlement instrumentation system and monitoring program for the dam, including the planned investigations and instrumentation to be installed as part of the grouting program should be independently reviewed as soon as possible. The review should be structured to provide the District with recommendations for new instrument types and locations and/or to confirm that the locations where the existing or planned explorations, instruments, and monitoring program are adequate.
- **Improve Measurement:** The system for measuring ongoing deformations of the dam crest and key areas along the downstream slope and the wrap-around section of the embankment is not considered adequate and needs to be substantially modified as soon as possible so that reliable deformation measurements can be obtained. The Panel believes that information on the thickness and construction of pavement overlays in the crest areas in question may provide additional insight into the rate and magnitude of settlement that has occurred and should be further evaluated. The Panel notes that settlement may occur in more concentrated locations than the 100-foot spacing of the crest monuments can adequately detect. A closer spacing of monuments (25 feet) and more frequent monitoring will be important considerations, particularly in the first 200 feet beyond the end of the concrete section of the dam and in the area near the end of the existing concrete diaphragm wall.
- **Additional Investigation and Instrumentation:** Additional investigations and instrumentation are recommended in two "depression:" areas identified by the Panel including 1) a portion of the downstream wrap around section near the contact with the concrete dam, and 2) along the downstream slope near the end of the diaphragm wall to investigate the root cause of the depressions that have developed. Borings, piezometers, and surface settlement monuments should be considered at these locations.
- **Review Reservoir Restriction:** Once completed, the results of the supplemental investigation and grouting program, along with the supplemental instrumentation monitoring, should be independently reviewed to determine whether adjustments to the target reservoir drawdown level are appropriate.

Wolf Creek Dam Consensus Report  
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# Attachment A

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## References



## References

1. US Army Corps of Engineers, Seepage Control, Major Rehabilitation Evaluation Final Report, Nashville District, July 11, 2005.
2. US Army Corps of Engineers, Wolf Creek Dam Seepage Problems, Proposed Repair, Risk Reduction; Presentation to DSCA Review Panel by Tommy Haskins, Pittsburgh, Pennsylvania, October 9-13, 2006.
3. US Army Corps of Engineers, Class I Dam SPRA Summary, Wolf Creek Dam; Presentation to DSAC Review Panel by Dr. Jeff Schaefer, Pittsburgh, Pennsylvania, October 9-13, 2006.
4. AMEC, Seepage Analyses, Wolf Creek Dam; Submitted to the U.S. Army Corps of Engineers, Nashville District, December 8, 2004.
5. AMEC, Wolf Creek Dam Seepage Analysis and 3-D Modeling; Presentation to the Association of State Dam Safety Officials, Boston, MA, September 11, 2006.
6. Board of Consultants, Wolf Creek Dam Major Rehabilitation Evaluation Study Independent Technical Review; presented to the U.S. Army Corps of Engineers Nashville District Geotechnical Branch, September 3, 2004.
7. DSAC Peer Review Panel, Draft Comments/Questions related to ETL 1110-2-XXXX, INTERIM RISK REDUCTION MEASURES FOR DAM SAFETY, September 19, 2006, version 1, December 14, 2006.
8. DSAC Class I Dam Peer Review Panel, Confidential Draft Summary Memorandum, Evaluation of DSAC Classifications for Wolf Creek, Center Hill, Clearwater, Isabella, Martis Creek Dams and Herbert Hoover Dikes, December 14, 2006.
9. Miscellaneous information provided by the Corps during two Risk Assessment Workshops held at the Nashville District Office in December 2006 and January, 2007. Information included plots of settlement and water level data and interpretations from instrumentation monitoring, additional cross-section and profile data, and information on the diaphragm wall design and construction.

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## **Attachment B**

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### **Summary of Data Source Opinions on Key Distress Indicators**

## Attachment B

### Summary of Data Source Opinions on Key Distress Indicators

This attachment contains Tables B-1 through B-5. Each table contains quotes or descriptions of distress at Wolf Creek Dam from a key reference evaluated by the Panel in arriving at the conclusions and recommendations in this Consensus Report.

**TABLE B-1**  
**“BOC REVIEW OF MAJOR REHABILITATION REPORT”**  
**SEPTEMBER 3, 2004**

Indicator 1 – (Increasing Seepage):

PAGE	QUOTE/CONCLUSION
2	“...recent data indicate on-going deterioration of seepage conditions.”
3	“There are large saturated areas (wet spots) present in various levels downstream.”
7	“However, over the last three years seepage has increased...” “...a) seepage appears to be occurring at or near locations of seepage noted before the emergency grouting program...”
7	“The Board concludes that there is significant evidence that seepage observations are inconsistent with a dam that meets present design criteria.”
7	“...wet areas have reappeared.” “...b) numerous wet areas are observed in low spots downstream of the toe of the dam...” “...d) at least one wet area has been observed on the slope of the dam just upstream of the switchyard, near the location of one of the 1967-68 sinkholes. These wet areas reportedly present even during dry periods and, therefore, appear to be independent of rainfall and likely related to reservoir seepage.”
11	“Increases in the number and magnitude of wet areas in the downstream area of the right side of the wall since construction of the diaphragm wall could be a result of changes in paths of seepage.”

Indicator 2 – Sinkholes

No references.

Indicator 3 – Settlement/Cracks

No references.

Indicator 4 – Soft Areas/Zones

PAGE	QUOTE/CONCLUSION
8	<p>“<u>Soft Zones</u>. During the District’s exploration programs conducted in 2002-2003, soft zones were encountered in the embankment in two borings. Although this is consistent with drilling results obtained during emergency drilling and grouting operations in 1968, the possibility exists that seepage is occurring at depth and is in fact creating soft zones.”</p>

Indicator 5 – Rising Piezometers

PAGE	QUOTE/CONCLUSION
3	<p>“Piezometric levels are elevated in three instrumentation cross sections along the embankment alignment.”</p>
7	<p>“...c) increases in piezometer readings have been observed at some locations...”</p>
7-8	<p>“<u>Piezometers</u>. It appears there are credible, inexplicably high piezometer readings at several locations downstream of the crest. Also, wet spots similar to those present before the sinkholes appeared in 1967 and 1968 have reappeared along with these higher piezometer readings. There are a large number of piezometers in this dam but the section of the dam between the right end of the diaphragm wall and the right abutment has minimal piezometer coverage. Also, there have been some problems with hardware, including problems with an automated data collection system that produced considerable suspect information. However, the District believes there is some reliable information included in that period of record.</p> <p>Some downstream piezometer readings have increased. According to District records, some piezometers in the area within 400 feet of the embankment-concrete tie in, and downstream of the diaphragm wall, have risen as much as 10 feet since 1984. Furthermore, there appears to be a substantial area of higher than expected readings in the vicinity of the wraparound embankment at the concrete section. While there have been higher than normal pools for approximately the last three years, it appears that these readings are in excess of expected readings.</p> <p>The Board concludes that the appearance of wet areas on and downstream of the embankment, combined with the increasing trend in piezometer readings, is consistent with degradation of the dam’s seepage barriers.”</p>
10	<p>“Piezometers indicate that full reservoir head is present in the embankment immediately upstream of the diaphragm wall.”</p>

PAGE	QUOTE/CONCLUSION
12	“The increased piezometer readings indicate that pore pressures are increasing, at least in localized areas. In the absence of evidence to the contrary, it is reasonable to assume that such pore pressure increases are present over a sufficient area to reduce the sliding stability of the embankment or the overburden that remained under the embankment.”
15	“Some of the piezometer information presented at the onsite meeting shows two-year straight line plots (1987-88) that are probably errors in data plots. According to the District, that time period does not represent missing data and the District will recover and plot this data. Also there were problems with the automated data collection system between 1989 and 1996 but the District believes some usable data are available from that period.”
15	“Even without knowing the source of the increase, it can still be concluded that there are reliable higher readings downstream.”
16	“There is substantial evidence that there is increasing seepage and uplift, but the path of the seepage and the effects on the foundation are not understood.

Indicator 6 – Seepage-Induced Instability of River Bank

No references.

Indicator 7 – General and Miscellaneous

PAGE	QUOTE/CONCLUSION
2	“1. The Board concurs with the District’s conclusion that monitoring and performance data indicate that the effectiveness of the existing seepage barriers at the dam are deteriorating (sic).”
2	Major rehab is supported: longevity of dam is less than 50 years and “could be much shorter.”
3	“Although there is surveillance of the project facilities, increased reports of abnormalities from Operations Division personnel began a series of comprehensive reviews.”
3	“The instrumentation data have been under scrutiny and it has been concluded that the instruments are reliable tools for on-going assessment and that the recorded readings are not attributable to instrument error.”

PAGE	QUOTE/CONCLUSION
7	<p>“There are also unsettling observations downstream of the switchyard in the vicinity of the fish hatchery and in the recreation area, including: a) seepage and bank instability along the outlet channel near the hatchery, b) unexplained flooding and then draining of a septic field near the hatchery, c) holes developing in the ground surface in the recreation area, and d) vertical flow from the base of power poles. Some of the water contributing to these observations may be from leaking piping or ponds at or near the fish hatchery, but this has not been confirmed except for leakage from a potable water line that has been repaired.”</p>
8	<p>“It is the Board’s opinion that all of the data collected since installation of the embankment diaphragm wall indicate that foundation conditions are deteriorating. In addition, a closer look at the concrete gravity section and the foundation preparation for that section indicate the possibility of seepage. The embankment wraparound section tie-in to the concrete section remains the area of greatest concern. It is impossible to predict the time frame for an occurrence of a major problem with any degree of accuracy. Such a problem could occur within five to ten years or sooner with high pools. Certainly, the Board would not predict a life of an additional 50 years for the structure without occurrence of significant problems. Although close monitoring of conditions is important and should be continued, the Board believes that, based on a) the known karstic conditions, b) the history of the structure including the remedial treatments, and c) evaluation of monitoring data, a proactive rather than reactive approach should be taken.</p> <p><b>Because of the substantial consequences of failure, it is not prudent to be optimistic about observed conditions indicating potential problems with Wolf Creek Dam’s foundation or embankment.”</b></p>
9	<p>“<u>Has not Performed as Expected.</u> A review of data to-date indicates that the implemented remedial measures have not resulted in a permanent and positive solution. Piezometer readings downstream of the diaphragm wall never reached the low levels anticipated, and it appears that these piezometer levels are now increasing in some locations, including in the vicinity of the wraparound section, i.e., near the contact of the embankment and concrete gravity sections. Wet area numbers downstream of the embankment have increased, and, in the last two years, the wet areas have appeared to increase with pool level increases. Although soft zones in the embankment were encountered during the 1968-1970 grouting program, the recently encountered soft zones raise the possibility of on-going seepage at depth.”</p>

PAGE	QUOTE/CONCLUSION
12	“In the vicinity of the left end of the diaphragm wall, increased piezometer readings, artesian flow from WA-38, and the appearance of wet spots and ponded seepage, indicate the potential to exceed the critical gradient at isolated locations near the toe of the embankment. This could be particularly true during any future flood-storage pools.”
17	“The District reports that their investigations do not show any significant saturation of the downstream shell. On the other hand, they conclude, and the Board concurs, that the thin blanket drain is not effective in controlling seepage within the embankment, that there are soft zones at or near rock, and that piezometer readings are increasing (at least in some locations).”



**TABLE B-2**  
**AMEC REPORT**  
**2004**

Indicator 1 – Increasing Seepage

No References

Indicator 2 – Sinkholes

<b>PAGE</b>	<b>QUOTE/CONCLUSION</b>
1-2	“recent sinkhole .. several years ago, approx. 80 feet in diameter, location by fishhatchery. Site visit, Dec 11, 2006 location at base of Monolith ~ 30 – unknown cause

Indicator 3 – Settlement/Cracks

No References

Indicator 4 – Soft Areas/Zones

<b>PAGE</b>	<b>QUOTE/CONCLUSION</b>
4-4	-- soft zones predominate 6 – 12 feet vertically at Elevation 580 at the top of rock

Indicator 5 – Rising Piezometers

<b>PAGE</b>	<b>QUOTE/CONCLUSION</b>
3-4	“consistent increasing trend over the last 4 years.

Indicator 6 – Seepage-Induced Instability of River Bank

No References

Indicator 7 – General and Miscellaneous

PAGE	QUOTE/CONCLUSION
5-8	Correlation of data (geologic, grouting, diaphragm wall data, piezometric levels, seepage analysis, wet areas, temperature survey) ...”Within the switchyard area, wet areas and sinkholes appear to correlate with the large joint that passes below the end of the concrete portion of the dam. There is at least one PZ near the switchyard where the water temperature survey seems to indicate cold water, either from water passing beneath the dam or from tail water. Elevated PZ level near the concrete/soil juncture appear to correlate with the location of the a large bedrock joint excavated as part of the cut-off trench. There is some data to suggest that the diaphragm wall is not effectively controlling seepage in this area ....”

**TABLE B-3**  
**“SEEPAGE CONTROL:**  
**MAJOR REHABILITATION EVALUATION FINAL REPORT”**  
**JULY 11, 2005**

Indicator 1 – Increasing Seepage

PAGE	QUOTE/CONCLUSION
i	“Worsening, chronic seepage problems threaten the stability of Wolf Creek Dam.”
ii	“...seepage has (since) found new paths...as erosion of solution features continues at an ever-increasing rate.”
3-1	“Uncontrolled seepage through the rock foundation is threatening the stability of the...earth embankment.”
3-15	Extent of wet areas has “steadily increased” to over 4% of the downstream area in March 2004 “contrasted with 0.2% in 1968 when emergency grouting was performed.”
3-17	Temperature profiling of piezometers has confirmed seepage.
3-20	“Unless the seepage is controlled, it will ultimately result in dam failure...”

Indicator 2 – Sinkholes

PAGE	QUOTE/CONCLUSION
3-2	The 1967 and 1968 sinkholes were preceded by wet areas and muddy flows in the tailrace. “Similar erosion...could cause a catastrophic failure of the embankment and rapid loss of the pool.”
3-17	“In the parking lot...a small sink measuring 3 feet by 6 feet developed in 2003. It was situated over random rock fill and may be the result of the overburden filling the voids of the random fill. This area is closely monitored. No additional subsidence has been noted since the initial collapse.”

Indicator 3 – Settlement/Cracks

PAGE	QUOTE/CONCLUSION
3-13	“Another distress indicator” is the embankment subsidence measured near Sta 37+00. The settlement rate has <u>increased</u> since 1997.
4-4	In September 2004, small continuous cracks appeared on the road surface – Sta. 35+59 to 38+57 coinciding with the area of maximum embankment settlement.
3-15	A differential settlement of the cable tunnel of about 1 inch has been recorded: cause uncertain. Note Figure 3-10 indicates the tunnel to cross the 67-68 sinkhole axis.
4-3	This indicates that the leaking and cracking of the tunnel began in 1987.
6-7	“Subsidence of the surface of the dam may also reflect erosion at depth.”

Indicator 4 – Soft Areas/Zones

PAGE	QUOTE/CONCLUSION
3-13	In 2002 boring RS-348 (Sta 37+50), four feet downstream of the wall found 7 feet of very soft saturated material at the top of rock.
3-16	Half of the 12 borings encountered soft zones in the embankment. Two other borings over 100 feet downstream of the wall in the cone section also encountered soft material at the top of rock.

Indicator 5 – Rising Piezometers

PAGE	QUOTE/CONCLUSION
3-5	“The highest pressures experienced at the project downstream of the wall occur at the embankment/masonry interface. This is a critical area as it represents the shortest seepage paths from upstream to the downstream tailrace.”
3-12	Pressures have risen since the wall was installed. “While most of the piezometric levels have risen 3 to 4 feet since 1984, 2 piezometers in the cone section reflect a 13-foot rise.” Two embankment piezometers “have high levels and respond to headwater changes.” “Responsiveness in embankment piezometers means the clay embankment material has been fractured either by hydro-fracturing during the drilling and grouting operations or because of settlement.” These are near Sta 35+50 “...where subsequent investigations found soft wet material at depth in the embankment.” There are also 5 flowing piezometers (none in 1980). “Levels in two piezometers have risen from 60 percent to 70 percent of the effective headwater between 1984 and 2005.”

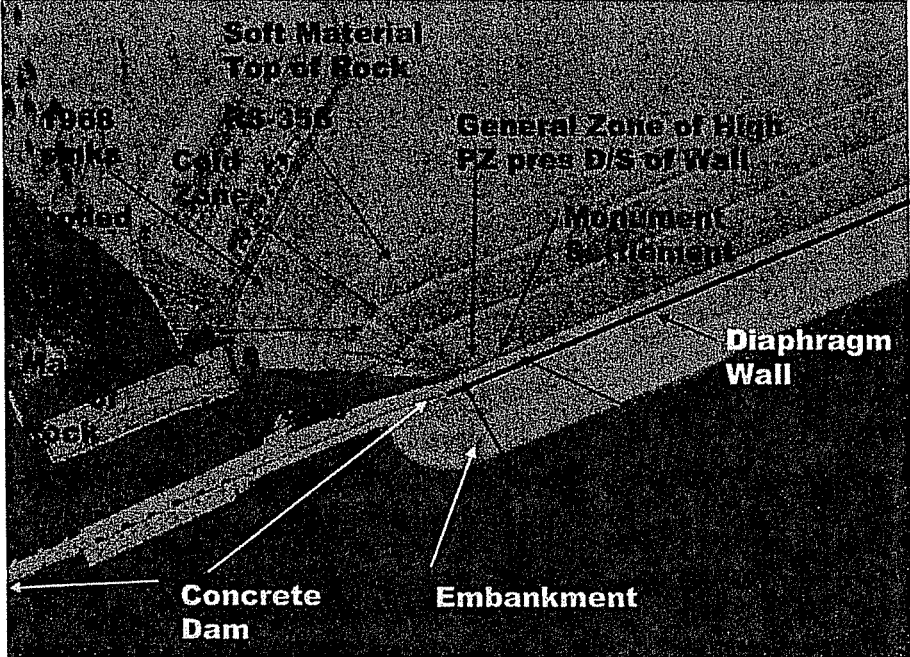
Indicator 6 – Seepage-Induced Instability of River Bank

PAGE	QUOTE/CONCLUSION
3-16	About 1,800 feet downstream of the dam, the bank has become unstable over a 300-foot length because of seepage. Seepage first noted in 2002

Indicator 7 – General and Miscellaneous

PAGE	QUOTE/CONCLUSION
(i)	“Key instrumentation readings, persistent and increasing wet areas, and investigative borings that encountered very soft, wet material at depth in the embankment all confirm solution features (still) exist that have not been cut off.”
(i)	The dam is judged to be in the “progression” stage, “...and without timely intervention will result in a breach of the embankment.”
(ii)	“...piping can rapidly progress with little or no warning to a point that precludes successful intervention.”
(ii)	“Failure would be catastrophic.” (Page 1 mentions 3 billion dollars and over 100 lives.)
(ii)	“Given the substantial consequences of complete loss or impaired operation of the dam, the history of problems, leaking foundation conditions and failure mechanisms at work, Nashville District has serious concerns about the reliability of the dam.”
(ii)	Construction of a new cut-off wall is judged “imperative” by Nashville District.
3-1	“The subsurface investigation and other indicators of distress confirm solution features still exist...and are progressively opening up as erosion of the filling occurs.” This erosion is felt to be occurring “at an ever-increasing rate.”
3-18	Refer to Figure 3-11.

PAGE	QUOTE/CONCLUSION																											
	<p>3.2.9 Comparison of 1968 and 2004 Distress Indicators.</p> <p>As shown on <b>Figure 3-11</b>, a contrast is drawn between the distress indicators from 1968 and 2004. Overall, the type of distress is more varied and extensive in 2004.</p> <div> <p style="text-align: center;"><b>Comparison of Distress Indicators 1968-2004 at Wolf Creek Project</b></p> <table border="1"> <thead> <tr> <th>Indicator</th> <th>1968</th> <th>2004</th> </tr> </thead> <tbody> <tr> <td>No. of Seals</td> <td>3</td> <td>1</td> </tr> <tr> <td>No. of Wet Areas</td> <td>6</td> <td>37</td> </tr> <tr> <td>% of Wet Areas D/S</td> <td>0.2</td> <td>4.2</td> </tr> <tr> <td>Seepage Instability of River Bank Zones, No. of Locations</td> <td>0</td> <td>2</td> </tr> <tr> <td>No. of Artesian PZ's</td> <td>0</td> <td>6</td> </tr> <tr> <td>Cracks per 100 Feet at Road Surface (100'-1) Sta. 35+11-39+00</td> <td>0</td> <td>4</td> </tr> <tr> <td>Embankment Settlement (0.1'-1) Max Settlement of Station 37+00</td> <td>0</td> <td>3</td> </tr> <tr> <td>PZ Head (10%+1) Highest Heads Between 35+11-40+00</td> <td>6</td> <td>7</td> </tr> </tbody> </table> <p style="text-align: center;">* Temperature measurements from PZs in 1968 and 2004 show anomalous cold areas downstream of dam exits</p> </div> <p style="text-align: center;">Figure 3-11 Comparison Between Distress Indicators in 1968 and 2004</p> <p>“Overall, the distress is more varied and extensive in 2004” (i.e., as compared to 1968).</p>	Indicator	1968	2004	No. of Seals	3	1	No. of Wet Areas	6	37	% of Wet Areas D/S	0.2	4.2	Seepage Instability of River Bank Zones, No. of Locations	0	2	No. of Artesian PZ's	0	6	Cracks per 100 Feet at Road Surface (100'-1) Sta. 35+11-39+00	0	4	Embankment Settlement (0.1'-1) Max Settlement of Station 37+00	0	3	PZ Head (10%+1) Highest Heads Between 35+11-40+00	6	7
Indicator	1968	2004																										
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PZ Head (10%+1) Highest Heads Between 35+11-40+00	6	7																										
3-19	Refer to Figure 3-12.																											

PAGE	QUOTE/CONCLUSION
	<p><i>3.2.10 Distress Indicators in the Wraparound or Cone Area.</i></p> <p><b>Figure 3-12</b> depicts the location of the collective distress indicators identified at the juncture between the earth embankment and the masonry dam where large solution features were encountered in the emergency / exploration program and wall installation between 1968 and 1979. This area is experiencing the most diverse and greatest density of distress indicators on the project.</p>  <p><b>Figure 3-12</b> Distress Indicators Station 35 to 40</p> <p>This emphasizes the critical nature of the cone area: “This area is experiencing the most diverse and greatest density of distress indicators on the project.” (Sta 35+40.)</p>
6-6	<p>“The wall terminates at Station 57+50. Seepage exit points on the ground surface downstream near this station are the most extensive on the project. These wet areas and high piezometric levels indicate seepage around the right end of the wall.”</p>

## TABLE B-4

### AMEC POWERPOINT PRESENTATION 2006

#### Indicator 1 – Increasing Seepage

SLIDE	QUOTE/CONCLUSION
10	“wet areas have redeveloped” post diaphragm wall construction. Photographs of areas slide # 35
22	“Seepage beneath Monolith 36 & 37 continues” post diaphragm wall construction.
55	“confirm .. what was buried in details” – “Karst joints and weathered zones in wraparound section and switchyard appear to contributing to continued seepage ...” “Worsening, chronic seepage problems threaten the stability of Wolf Creek Dam.”

#### Indicator 2 – Sinkholes

No references

#### Indicator 3 – Settlement/Cracks

SLIDE	QUOTE/CONCLUSION
10	Increase in rate of settlement – 0.15 feet in 16 years and 0.15 feet in the subsequent 7 years post wall construction.
11	Picture dated 9/20/2004 showing depression in roadway and guard rail and asphalt patch at monolith 37 & embankment contact.

#### Indicator 4 – Soft Areas/Zones

No References

#### Indicator 5 – Rising Piezometers



SLIDE	QUOTE/CONCLUSION
10	“increase in 2 piezometers in wrap around section rising by 13 feet since 1984. tailrace.”
26	“Rising water levels within embankment with highest levels nearest Monolith 37.
27	“History suggests the higher piezometric readings of the last 3-5 years are independent of pool elevations. “The highest pressures experienced at the project downstream of the wall occur at the embankment/masonry interface. This is a critical area as it represents the shortest seepage paths from upstream to the downstream.

Indicator 6 – Seepage-Induced Instability of River Bank

No References

Indicator 7 – General and Miscellaneous

SLIDE	QUOTE/CONCLUSION
32	Volume of grout was 3 X theoretical volume of drilled holes.
33	Effectiveness of secondary diaphragm is doubted. “Key instrumentation readings, persistent and increasing wet areas, and investigative borings that encountered very soft, wet material at depth in the embankment all confirm solution features (still) exist that have not been cut off.”
6-6	“The wall terminates at Station 57+50. Seepage exit points on the ground surface downstream near this station are the most extensive on the project. These wet areas and high piezometric levels indicate seepage around the right end of the wall.”

## TABLE B-5

### STAFF POWERPOINT PRESENTATIONS TO PANEL OCTOBER 10, 2006

#### Indicator 1 -- Increasing Seepage

SLIDE	QUOTE/CONCLUSION
26	Wet Areas – listed as a distress indicator
28	Wet Areas – Wet areas have increased in the last two years and are considerably more extensive than those identified in 1967-68
32	<ul style="list-style-type: none"><li>• Cool Spots from Piezometer Temp. Survey</li><li>• Cable Tunnel Seepage and Cracking</li><li>• Increased Seepage and Instability Problems in the D/S Riverbank</li><li>• Structural Integrity of Existing Wall</li></ul>
33	<ul style="list-style-type: none"><li>• Seepage coming around ends of wall<ul style="list-style-type: none"><li>• Through features untreated beneath monoliths</li><li>• Around right end where no wall exists</li></ul></li><li>• Below wall through features untreated or partially treated by previous grouting</li><li>• Through defects in wall itself</li></ul>

#### Indicator 2 – Sinkholes

No References

Indicator 3 – Settlement/Cracks

SLIDE	QUOTE/CONCLUSION
26	Settlement – listed as a distress indicator
29	<ul style="list-style-type: none"> <li>• Settlement monuments installed in 1981</li> <li>• Note trend at sta. 37+00, surface monument 3, near the tie in to the concrete at 35+1</li> <li>• Settled about 0.15 ft from 1981 to 1997 (16 yrs).</li> <li>• From 1997 to 2004 settled another 0.15 feet which represents both continuing settlement as well as an increase in the rate</li> <li>• Also seeing some cracks in the roadway at this location</li> <li>• Embankment is about 205 ft thick at this location. Compacted clay has the ability to bridge over voids</li> <li>• This is in an area where soft zones encountered in investigations done a few years ago which I'll show next.</li> </ul>
31	Monument Settlement listed as an indicator. Cracks in road listed as an indicator.

Indicator 4 – Soft Areas/Zones

SLIDE	QUOTE/CONCLUSION
26	Soft Zones – listed as a distress indicator
30	<ul style="list-style-type: none"> <li>• 12 borings using resonant sonic method</li> <li>• 6 highlighted in red penetrated softer, wet zones within the embankment/alluvium</li> <li>• Generally intervals of about 8 feet or less except 354 near end of wall that hit 16 of soft soils between depth of 124 and 140 feet out near end of wall.</li> <li>• 348, 356, and 357 hit soft, saturated material at top of rock. 348 hit 7 feet of very soft, saturated soil. Pz installed here measures 60% HW. 356 and 357 located where solution features exist at top of rock. Both encountered 5 to 8 feet of soft to very soft , wet soil in the lower embankment near top of rock.</li> <li>• 345 hit soft material near top of rock. This is close to pz D-323 which has high reading and reacts to HW.</li> </ul>

Indicator 5 – Rising Piezometers

SLIDE	QUOTE/CONCLUSION
26	Rising Piezometers – listed as a distress indicator
31	“High Piez Pressure Downstream of Wall”

Indicator 6 – Seepage-Induced Instability of River Bank

SLIDE	QUOTE/CONCLUSION
32	“Increased Seepage and Instability Problems in the D/S Riverbank”

Indicator 7 – **General and Miscellaneous from SPRA Summary PowerPoint Presentation**

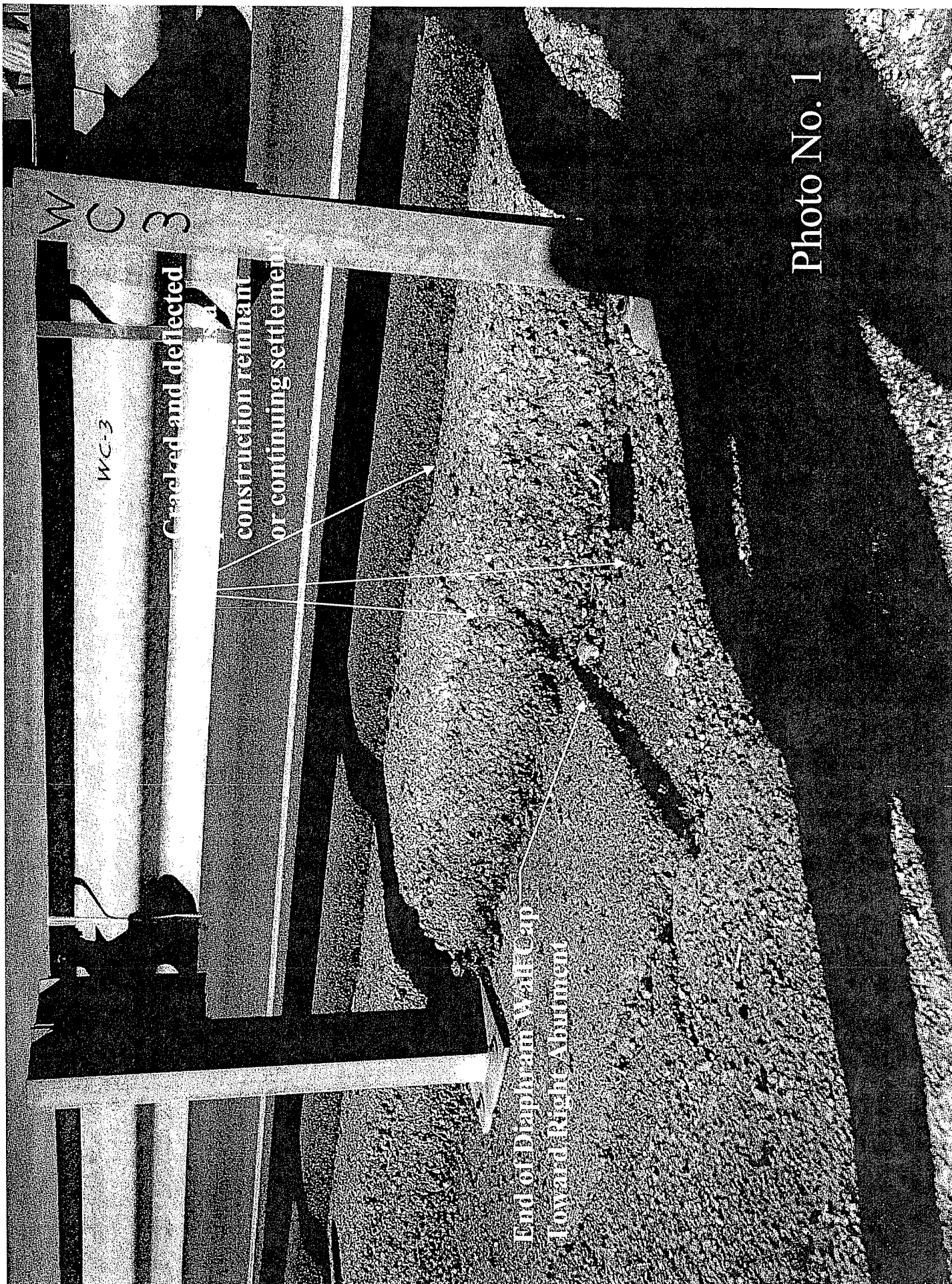
SLIDE	QUOTE/CONCLUSION
8	Inadequate ratings for: <ul style="list-style-type: none"> <li>• Embankment Seepage and Piping</li> <li>• Abutment Seepage and Piping</li> <li>• Foundation Seepage and Piping</li> </ul>
9	Inadequate rating for: <ul style="list-style-type: none"> <li>• Spillway Gates – Structural</li> <li>• Embankment Erosion – Toe, surface, and crest</li> </ul>
13	Primary failure mode – Foundation Seepage and Piping
15	Distress Indicators that Support Failure in Progress <ul style="list-style-type: none"> <li>▪ Known geology from construction photos.</li> <li>▪ Significant increase in downstream seepage</li> <li>▪ High piezometric pressures downstream of cutoff wall</li> <li>▪ Anomalous settlement of embankment crest</li> <li>▪ Very soft/wet soils (8 to 16 ft. thick zones) recovered from embankment foundation in 6 out of 12 sonic borings.</li> <li>▪ Incomplete cutoff wall</li> <li>▪ Previous sinkhole development</li> </ul>

Wolf Creek Dam Consensus Report  
Engineering Risk and Reliability Analysis  
Peer Review – Dam Safety Action Classification Group 1  
April 11, 2007

## **Attachment C**

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**Site Visit Photos Referenced in Consensus Report**



WC-3

Cracked and deflected  
construction remnant  
or continuing settlement

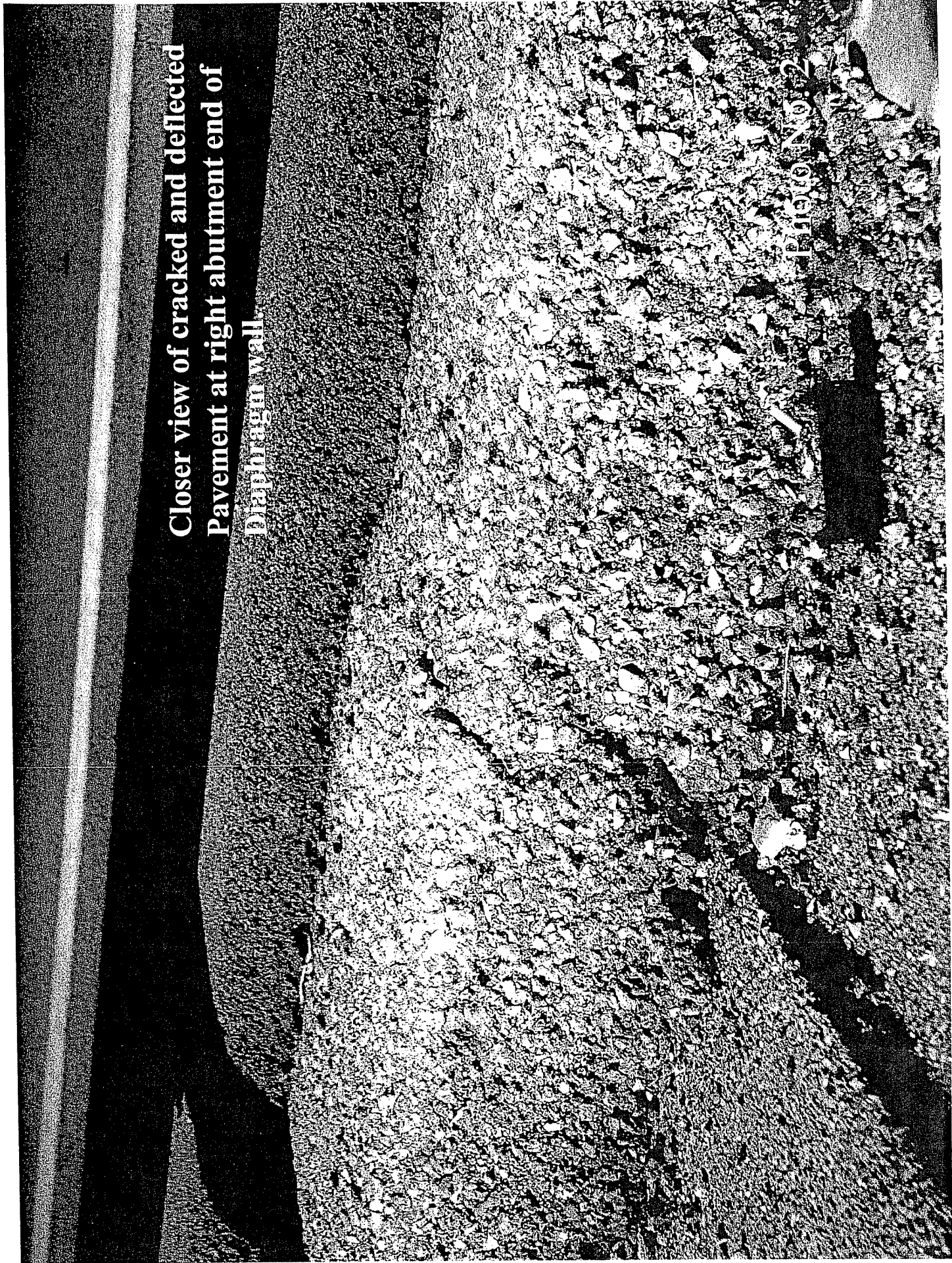
End of Bluffman Walk Cap  
Toward Right Abutment

Photo No. 1



**Closer view of cracked and deflected  
Pavement at right abutment end of  
Diaphragm wall.**

**Photo No. 2**





**Diaphragm wall cap at end  
near right abutment. Note  
minor cracking and separation  
of concrete overlay from cap**

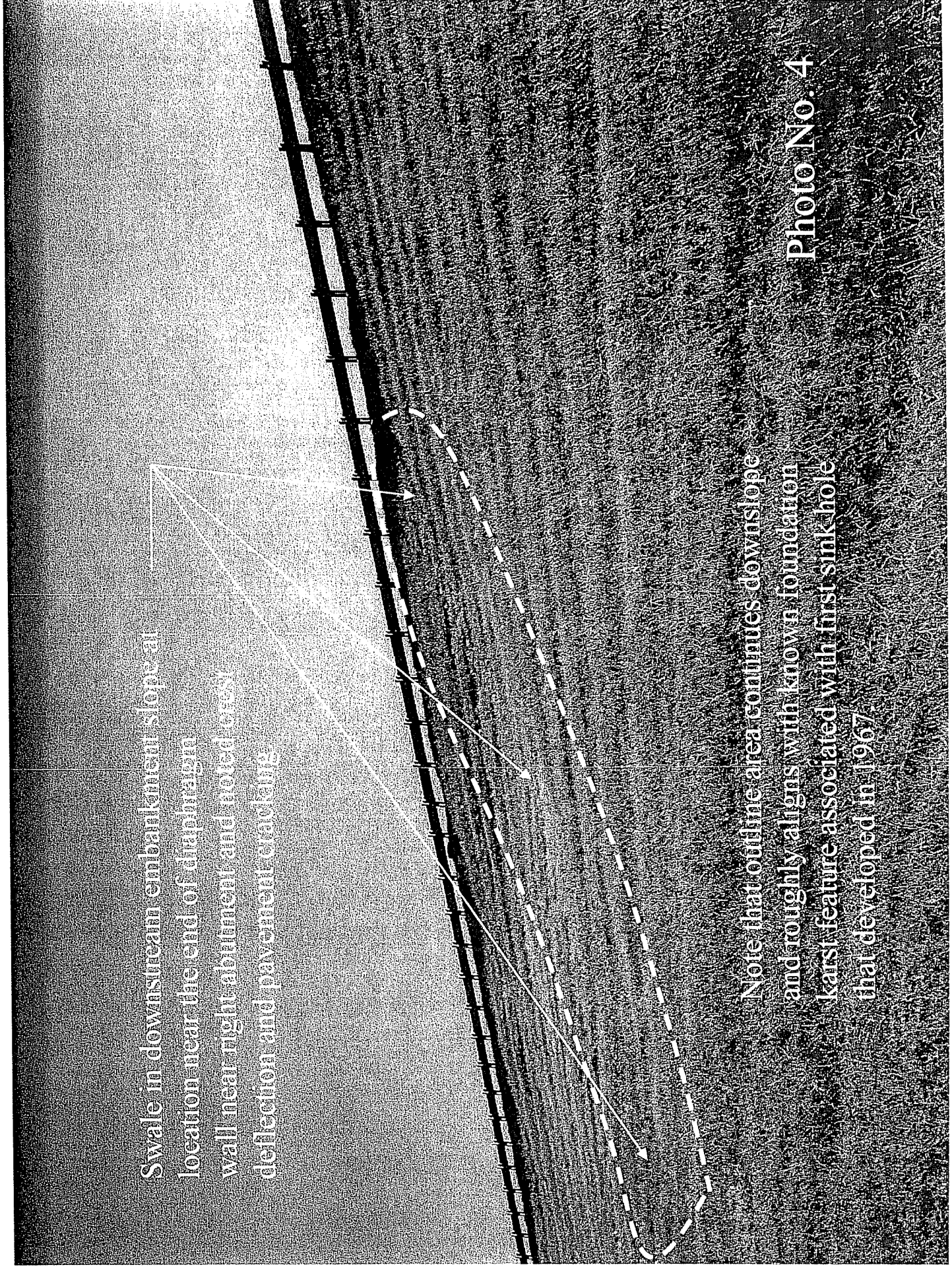
**Photo No. 3**

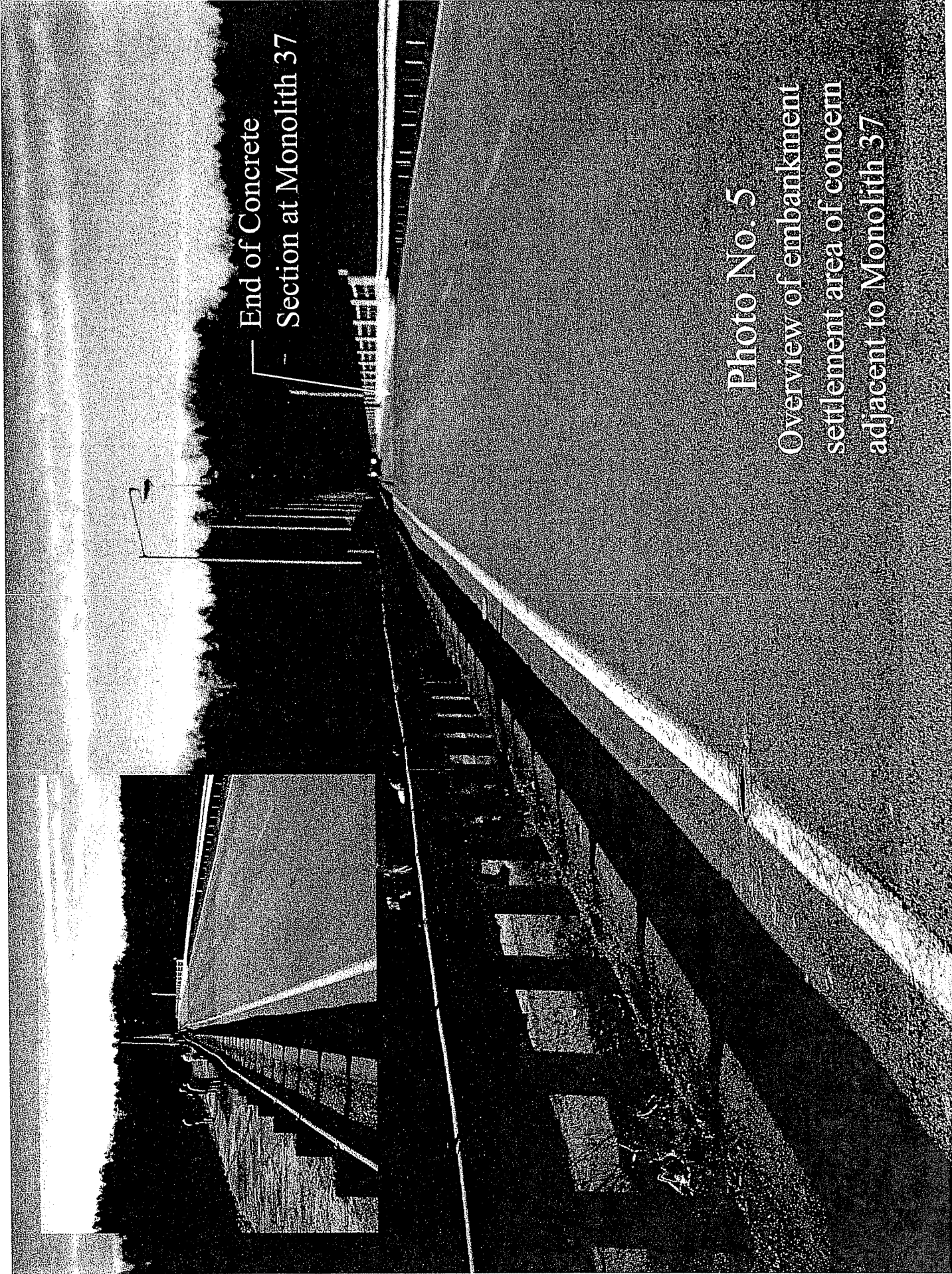


Swale in downstream embankment slope at location near the end of drainage wall near right abutment and noted crest deflection and pavement cracking.

Note that outline area continues downslope and roughly aligns with known foundation karst feature associated with first sink hole that developed in 1967.

Photo No. 4

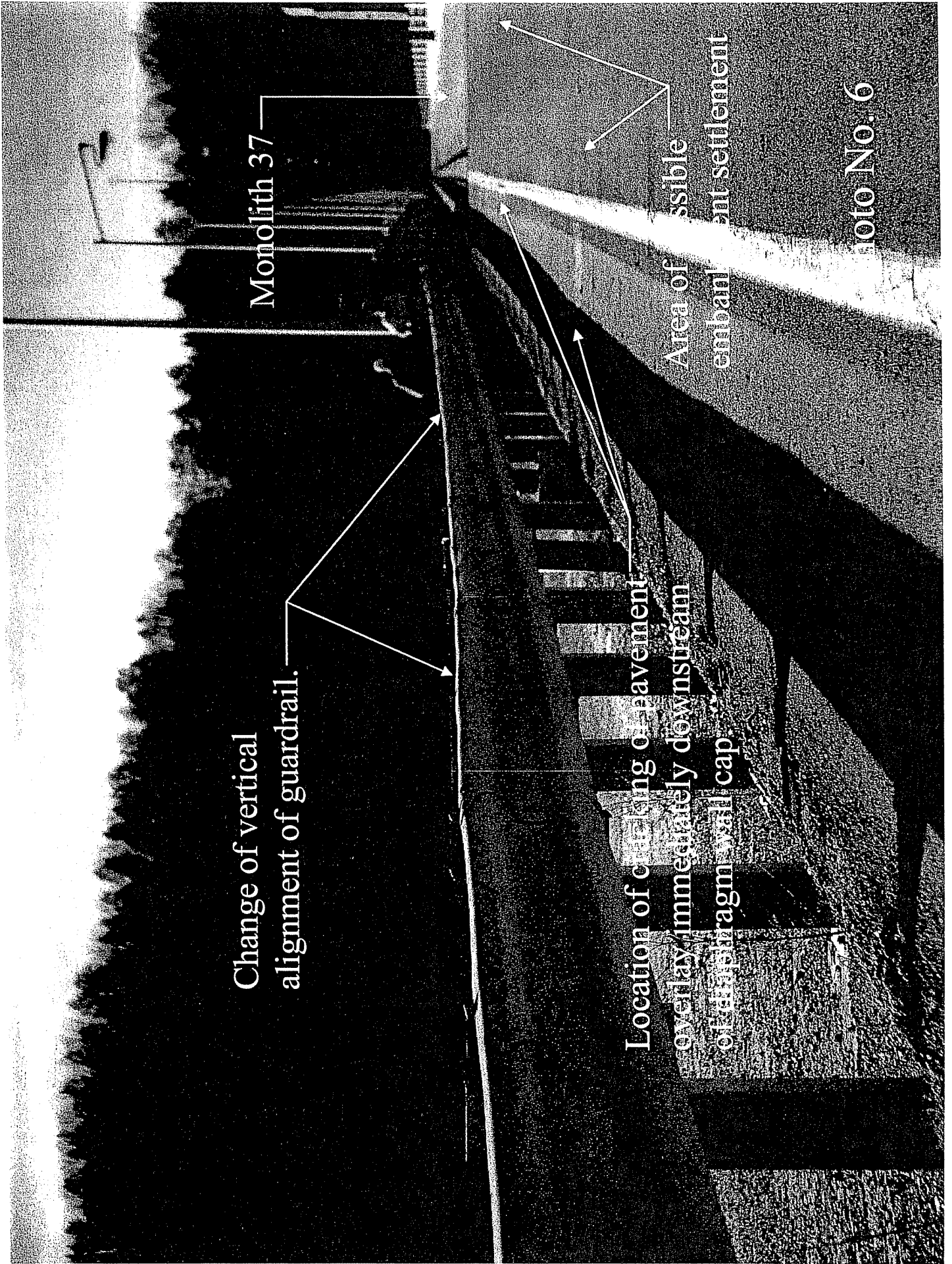




End of Concrete  
Section at Monolith 37

Photo No. 5  
Overview of embankment  
settlement area of concern  
adjacent to Monolith 37





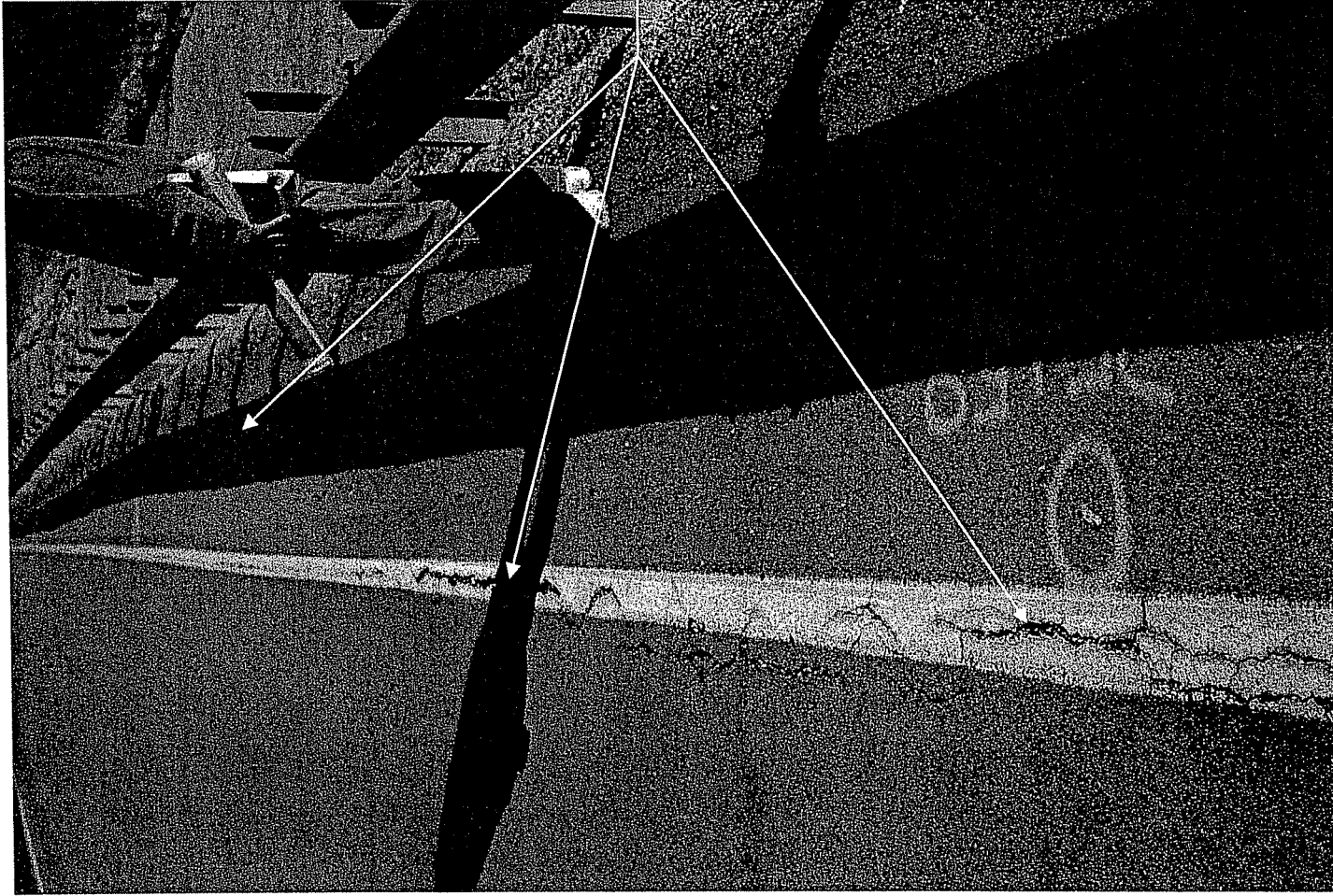
Change of vertical alignment of guardrail.

Monolith 37

Location of cracking of pavement overlay immediately downstream of trapezoidal wall cap

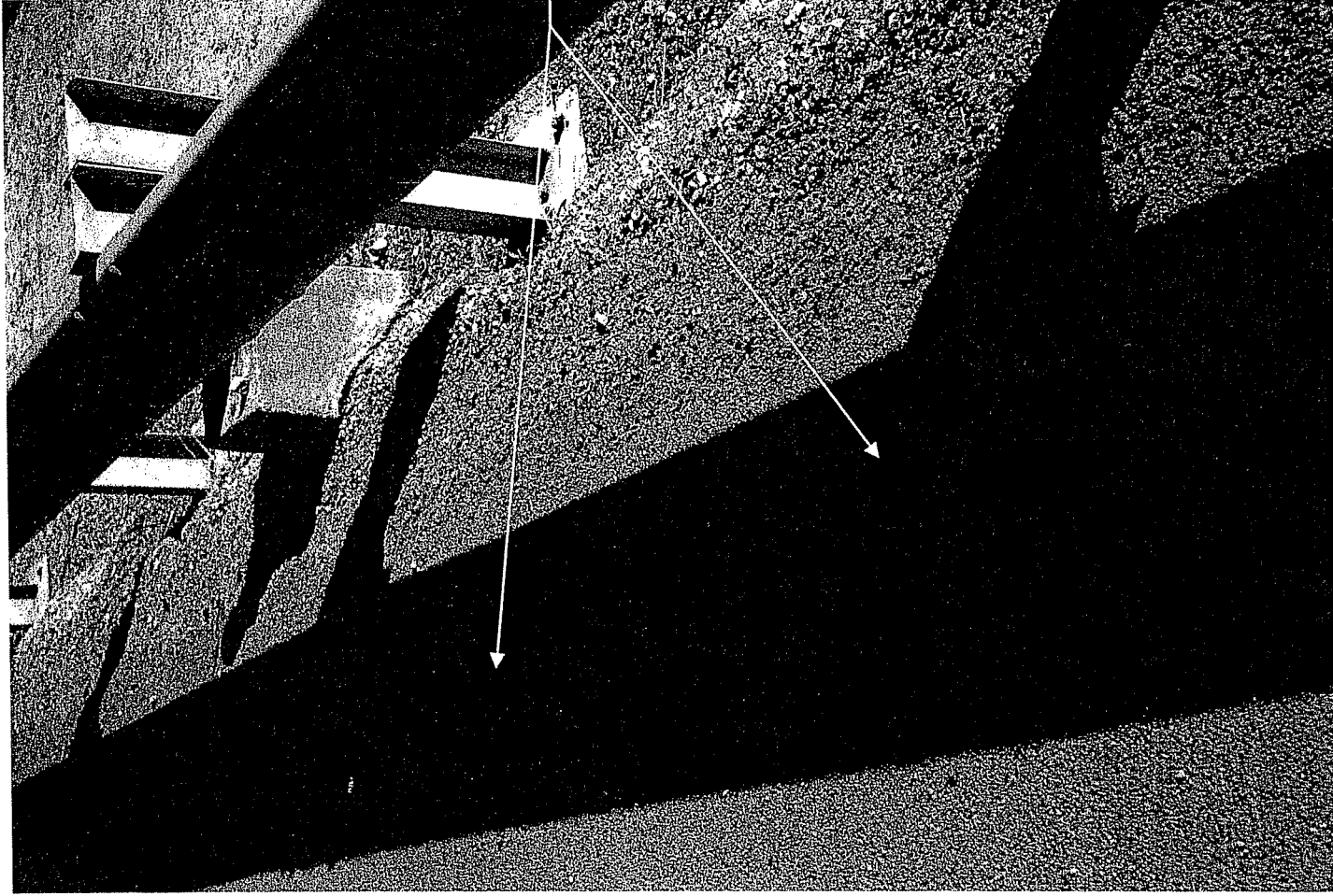
Area of possible embankment settlement

Photo No. 6



Closer view of pavement cracking. Note embankment stationing. Survey monument at stations 35+00 and 36+00

Photo No. 7



Additional cracking of pavement overlay immediately downstream of diaphragm wall cap.

Photo No. 8

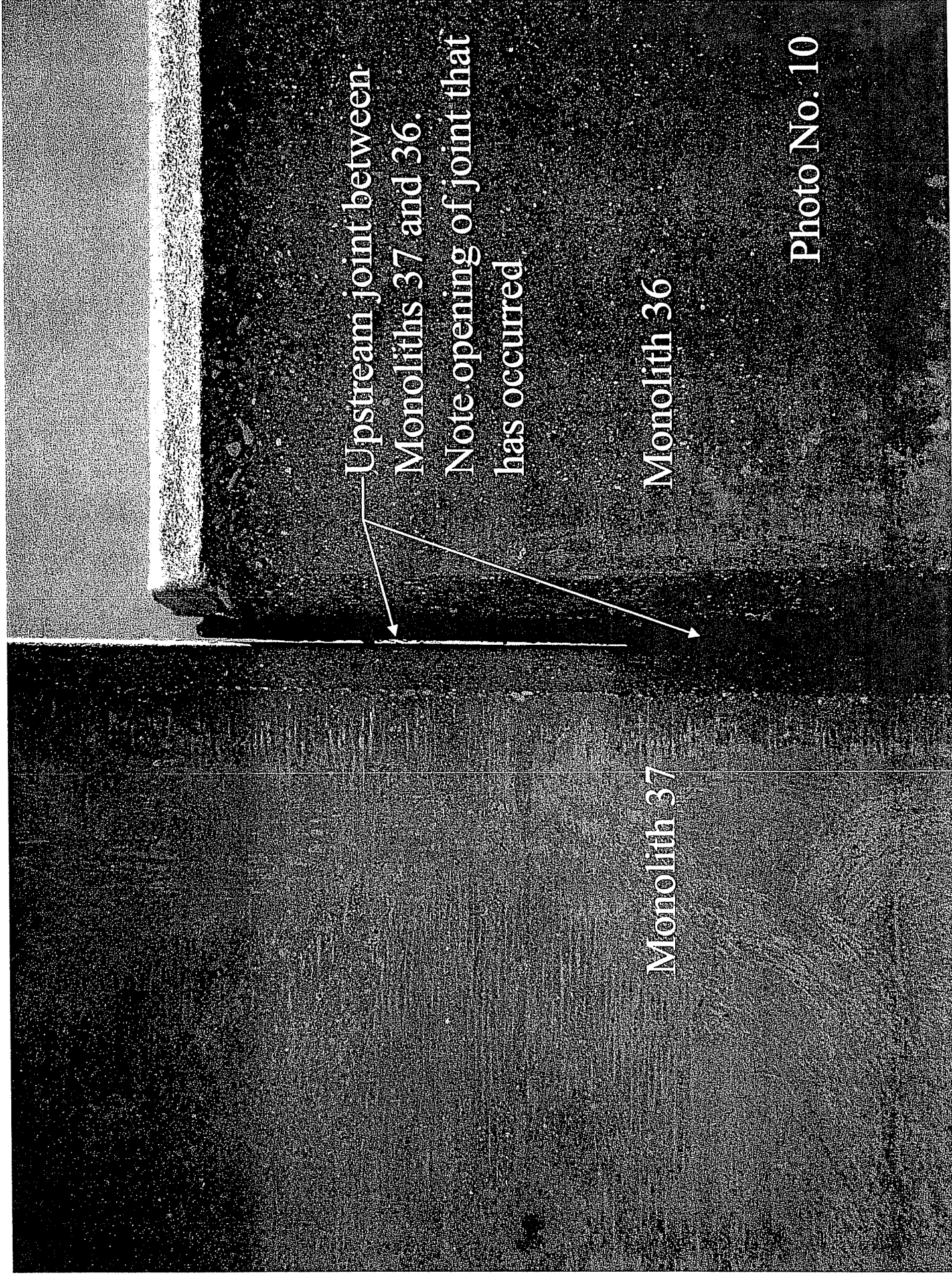


Monolith 37

Downstream joint between  
Monoliths 37 and 36.  
Note compression failure  
of concrete adjacent to  
the joint that has occurred

Monolith 36

Photo No. 9



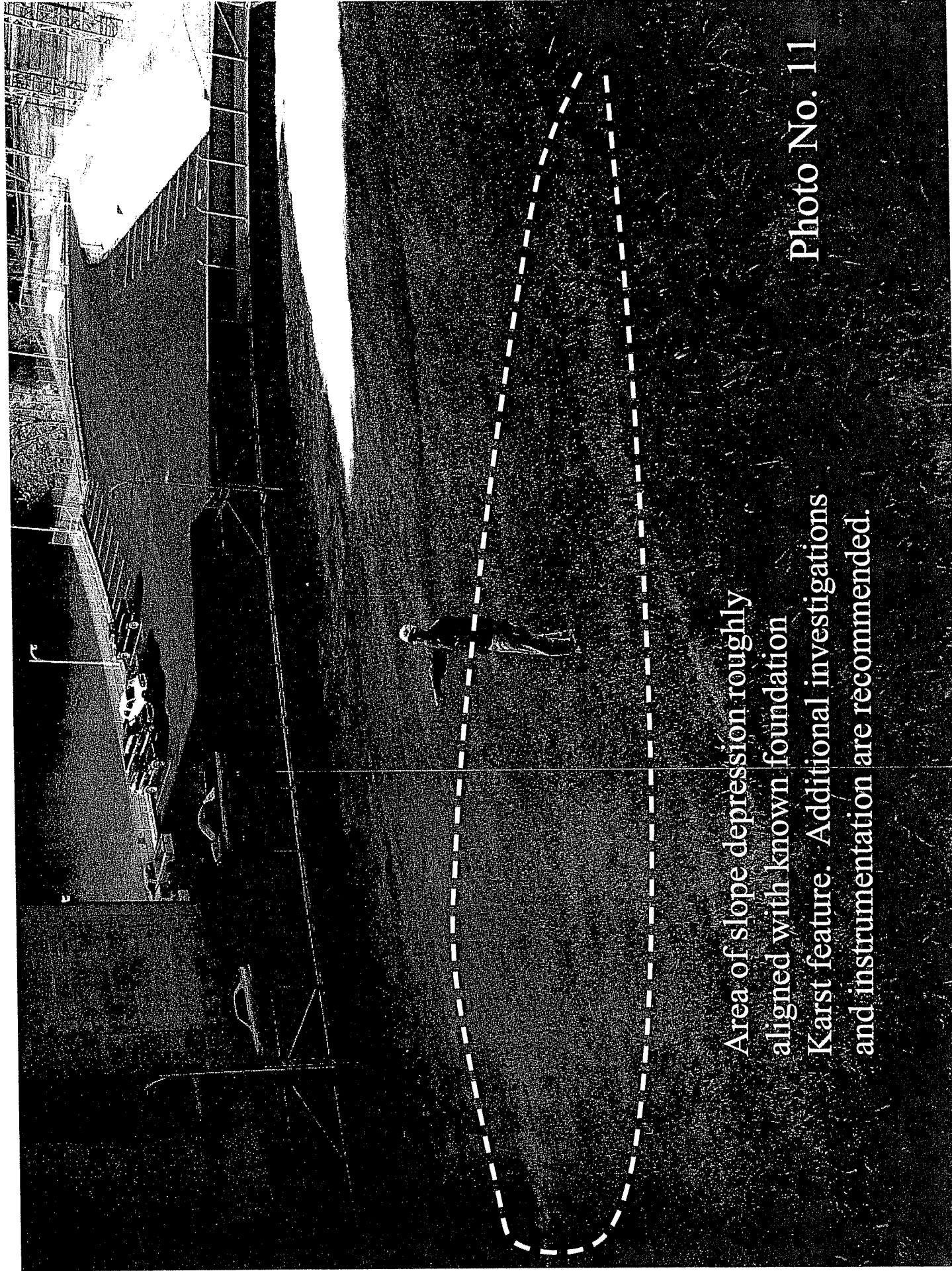
Upstream joint between  
Monoliths 37 and 36.  
Note opening of joint that  
has occurred

Monolith 37

Monolith 36

Photo No. 10

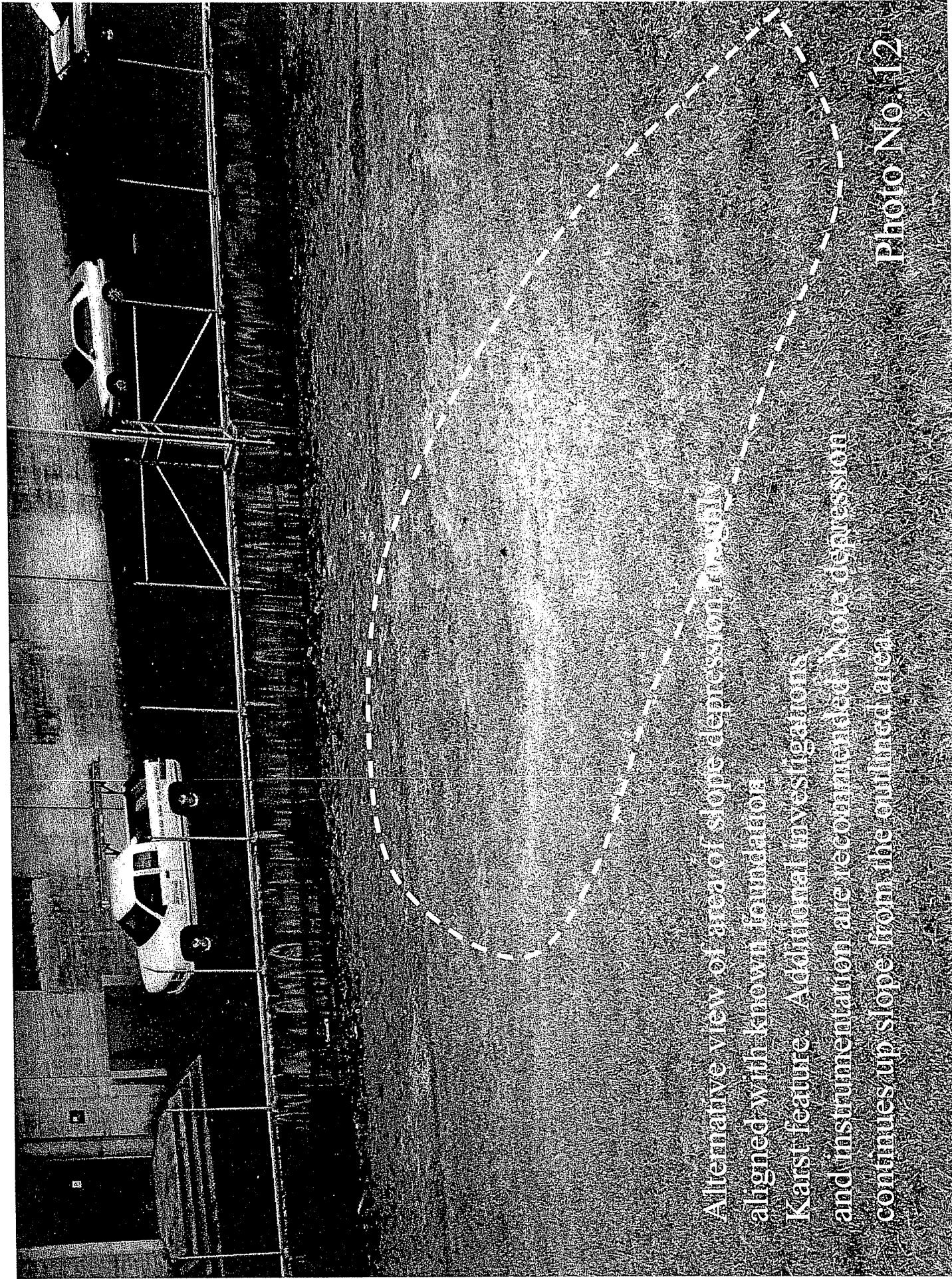




Area of slope depression roughly aligned with known foundation Karst feature. Additional investigations and instrumentation are recommended.

Photo No. 11





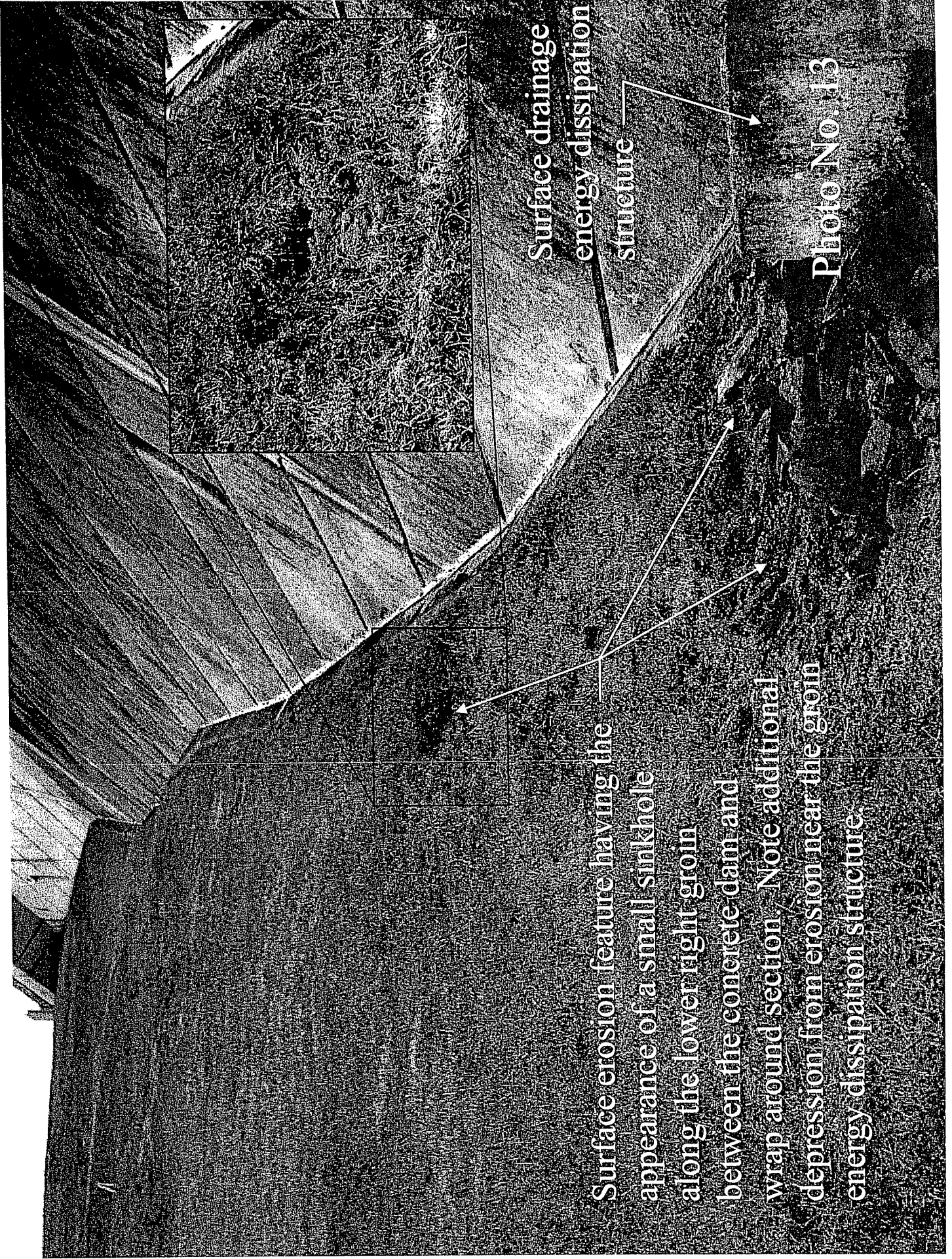
Alternative view of area of slope depression, mostly aligned with known foundation Karst feature. Additional investigations and instrumentation are recommended. Note depression continues up slope from the outlined area.

Photo No. 12

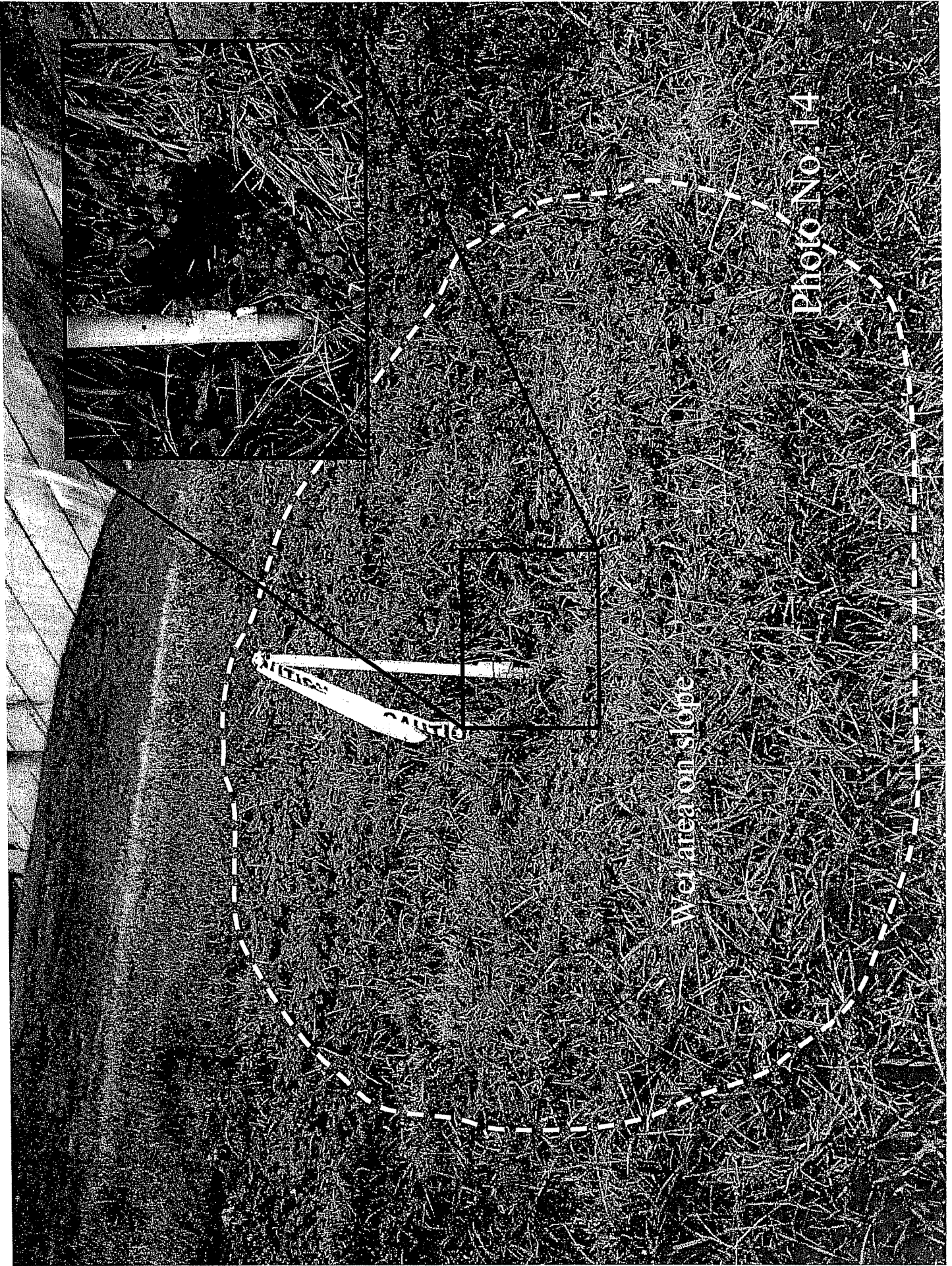
Surface erosion feature having the appearance of a small sinkhole along the lower right groin between the concrete dam and wrap around section. Note additional depression from erosion near the groin energy dissipation structure.

Surface drainage energy dissipation structure

Photo No. 13







Wet area on slope

Photo No. 14

Wolf Creek Dam Consensus Report  
Engineering Risk and Reliability Analysis  
Peer Review – Dam Safety Action Classification Group 1  
April 11, 2007

## **Attachment D**

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**Alternative Description of Events Leading to the Development of  
the Critical Embankment Foundation Seepage and Piping Failure  
Mode**

## Alternative Description of Events Leading to the Development of the Critical Embankment Foundation Seepage and Piping Failure Mode

The limestone foundation rock prior to construction was riddled with both open and soil filled voids (Karst) caused by millions of years of solutioning activity by ground water. These Karst features typically followed joints in the rock. The depth of individual Karst features along the near vertical joints has been measured to be as much as 40 feet. The width of the Karst features, based on examination of construction photographs and other available information appears range from fractions of an inch to as large as 30 feet. The soil-filled Karst features may contain some voids that substantially reduce seepage path lengths between the reservoir and the free discharge face in areas downstream of the dam.

There are two attributes of Karst bedrock that may contribute to the development of a piping failure mode. First and of primary concern, seepage pressures (typically ranging from 175 to 200 feet) and corresponding seepage flows that develop through the Karst features and the adjacent fractured rock can begin to erode soil, filling the Karst voids at the discharge face. Observations at the site indicated that soils in Karst features beneath the dam have been eroded over time and that piping has **initiated**. The second, and secondary attribute if it occurs, is dissolution of the bedrock. Unlike piping, dissolution of the bedrock begins where reservoir water enters the foundation in the reservoir. Dissolution occurs as seepage flows develop through non-grouted joints. The solutioning opens the joints, and over time, the amount of flow and corresponding water pressures in the bedrock begin to increase in the downstream direction. Under the right circumstances, the rate of dissolution can be accelerated at locations where seepage gradients are high (such as the base of a cutoff wall, or through defects in the diaphragm wall or grout curtain).

The **continuation** phase of a piping failure mode through the Karst foundation can therefore be impacted by these potentially complimentary factors. Without dissolution, the rate of piping would generally increase and the continuation of void opening and formation would accelerate with time. If dissolution is also happening, water pressures and flow quantities are increasing toward the pipe from the upstream direction causing a further acceleration of the failure mode development.

The piping that has occurred in the foundation of Wolf Creek dam has led to loss of cavity wall and roof support, and collapse (as evidenced by the occurrence of sinkholes near the downstream toe of the embankment at two different locations). Erosion of Karst infilling has likely **continued** in many locations to the base of the foundation soils and embankment (as evidenced by the soft zones that have been encountered in recent exploration borings). As the erosion **continues** upstream to, under, and potentially through the grout curtain and cutoff wall, there will be a time when there would likely be a dramatic increase in the rate of flow through potentially large voids. The large flows that would occur at this time would be capable of carrying large quantities of materials allowing for the rapid growth (**progression**)

of sinkholes in the dam, loss of support for the cutoff wall, failure of the cutoff wall and then rapid **breach formation**. The flow rates that would likely occur at the stage when convergence of the piping and dissolution processes occur would also likely preclude or substantially reduce the potential effectiveness of any heroic intervention to prevent ultimate breach formation and failure of the dam.



EAST KENTUCKY POWER COOPERATIVE, INC.  
PSC CASE NO. 2007-00168  
INFORMATION REQUEST RESPONSE

ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 14

RESPONSIBLE PERSON: Jerry Purvis  
COMPANY: East Kentucky Power Cooperative, Inc.

**Request 14.** If the water levels are lowered by the U.S. Army Corp of Engineers, how will the proposed delay in the installation of the cooling tower effect the plant generation capacity?

**Request 14.** If the water levels are lowered below the suction lines of Cooper Station's intake structures, EKPC would rely solely on the barge pump station already in place. The barge pump station currently has four, 10,000 gpm pumps that are fully operational. That is enough pumping capacity to keep Unit 2 on line and fully available through the winter months. With four additional 10,000 GPM pumps, currently scheduled for operation in December 2007, Unit 1 could also remain on line and fully available through the winter and have some redundancy on the barge pump station. Eight pumps would deliver enough water capacity to keep both units fully available until the end of April 2008. At that time, depending on the temperature of the inlet water, Cooper Station would begin facing derates through the summer months if there were no cooling tower for Unit 2.





**EAST KENTUCKY POWER COOPERATIVE, INC.**  
**PSC CASE NO. 2007-00168**  
**INFORMATION REQUEST RESPONSE**

**ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 15**

**RESPONSIBLE PERSON: Charlie Lile/David Eames**  
**COMPANY: East Kentucky Power Cooperative, Inc.**

**Request 15.** With the proposed delay of the cooling tower, does the Company intend to reconsider its decision to exclude Interest During Construction from the project budget? Does the Company intend to seek reimbursement of these finds?

**Response 15.** The proposed delay would not affect EKPC's decision to exclude IDC from the project budget. This particular project does not meet EKPC's criteria for capitalizing interest during construction. EKPC capitalizes interest during construction on those projects, which take longer than one year to complete and cost in excess of \$100,000. The "longer than one year to complete" only applies to active, not deferred, construction projects. Also, Statement of Financial Accounting Standards No. 34 states that interest is not capitalized during project delays, except for brief interruptions.

EKPC has an application pending before the Governor's Office for Local Development ("GOLD") for the possible reimbursement of expenditures for this project. There has been no approval of this reimbursement, to date. EKPC's GOLD application is attached.

Project Scope and Budget
Governor's Office for Local Development
Office of State Grants

Check one of the following:

- Local Government Economic Development Fund (LGEDF) Coal Severance Grant
Line-item Project
Body Armor
Renaissance
Area Development Fund (ADF)
Cemetery
Other

Project Information

Project Title: East Kentucky Power Cooperative - Cooper Station Modifications

Total Amount Requested: \$3 million grant(s); \$4,718,193 in low-interest loan(s) Total Project Cost: \$7,718,193

County: Pulaski County ADD: Lake Cumberland ADD

Type of Project (for example - construction, revitalization, purchase of land and equipment purchase, etc.):
Modifications to the water intake system at EKPC's Cooper Power Station in response to the Lake Cumberland/Wolf Creek Dam emergency

Start Date: May 14, 2007 End Date: December 31, 2007

If Water or Sewer Project, check one of the following and provide WX # and/or SX#:

- Water WX#:
Sewer SX#:

Grantee Information

Legal Applicant / Funding Recipient (entity that will execute MOA): City of Burnside - Mayor Charles Fourman, City Council

Mailing Address: 7929 South Highway 27

City, State, Zip Code: Burnside KY 42519 Office Phone: (606) 561-4113

Office Fax: (606) 561-6604 E-mail Address:

Official's Name/Title: Burnside Mayor Charles Fourman County Pulaski County

**Sub-Recipient Information** (If different from Grantee)

Sub-recipient (if applicable): East Kentucky Power Cooperative, Inc

Mailing Address: 4775 Lexington Road

City, State, Zip Code: Winchester, KY 40391

Office Phone: (859) 744-4812

Office Fax: (859) 744-6008

E-mail Address: bob\_marshall@ekpc.coop

Type of Organization: Not-for-profit electric utility (501(c)(12))

Contact Person: Bob Marshall, President & CEO

---

**Project Contact**

Application Contact Person (consultant, area development district, etc.): Charles Fourman

Mailing Address: 7929 South Highway 27

City, State, Zip Code: Burnside KY 42519

Office Phone: (606) 561-4113

Office Fax: (606) 561-6604

Email Address: \_\_\_\_\_

Project Contact Person: Bob Marshall, EKPC President & CEO

---

**Detailed Scope of Work**

Provide a description of the project detailing all relevant project information including but not limited to the proposed project activities, a justification for project funding, any needs to be addressed by the project excepted results and public benefit to be derived from the project. Additional pages may be added if needed.

The construction of the proposed facilities is required to address current operational risks to Cooper Station as a result of the lowered level of Lake Cumberland, and to prepare for the additional lowering of the lake in conjunction with on-going repairs to the Wolf Creek Dam. The current level of Lake Cumberland is very close to the minimum level for water intake at Cooper Station, and EKPC has been notified by a letter from the Army Corps of Engineers dated February 9, 2007, that it must be prepared for the potential that the lake level will be lowered to 650 feet by early 2008. The proposed facilities must be constructed, on an emergency basis, to address potential public health and safety risks.

Detailed Project Budget

Provide a detailed cost break-down of the entire project (use and amount). Indicate by an asterisk \* or by bolding project activity or activities for which the requested funds will be used.

Use	Amount
1) *Materials/Labor/Engineering Design	2,637,349.00
2) *Pumps & Barges	2,411,200.00
3) *Electrical	1,200,000.00
4) *Installation of Pumps/Switchgear on Barges	297,000.00
5) *Surge Tank Overflow Upsize	275,000.00
6) *Wave Breaks/Lights for wave breaks	205,404.00
7) *Wet Well Fill Pump	45,000.00
8) *Floats/Dock buoys	36,250.00
9) *Supplemental Pumps / Barge	17,283.00
10) *Contingency	593,707.00
Total Amount Requested	7,718,193.00

Project Funds

List project funds that will be used for project completion.

Funding Source	Status	Amount
Grants under Executive Order 2007-298		\$3,000,000
Low-interest loan(s)		\$4,718,193

Signature

Please check that resolution is attached and sign to certify that all information is complete and correct.

Resolution is attached. (If applicable for ADF attach Statement of Assurances)

Signature \_\_\_\_\_ Date \_\_\_\_\_

Office of State Grants • Governor's Office for Local Development  
1024 Capital Center Drive, Suite 340 • Frankfort, KY 40601  
Phone: 502-573-2382 • Toll Free: 800-346-5606 • Fax: 502-573-0175 • www.gold.ky.gov





EAST KENTUCKY POWER COOPERATIVE, INC.  
PSC CASE NO. 2007-00168  
INFORMATION REQUEST RESPONSE

ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 16

RESPONSIBLE PERSON: Jerry Purvis  
COMPANY: East Kentucky Power Cooperative, Inc.

**Request 16.** Please describe in detail the Company's rationale for delaying the installation of the cooling tower.

**Response 16.** Adequate cooling water has been supplied to Cooper Station by the four barge-mounted pumps installed since June of 2007. For the normal fall and winter operation of Cooper Station, the proposed eight barge-mounted pumps can supply enough cooling water to generate full capacity of the facility. Eighty thousand gallons per minute of cooler water is normal winter operation for Cooper Station. This begins in November and ends in May.

The cooling tower will not be needed to maintain full operation of Cooper Station until June 2008 under normal water temperatures.





EAST KENTUCKY POWER COOPERATIVE, INC.  
PSC CASE NO. 2007-00168  
INFORMATION REQUEST RESPONSE

ATTORNEY GENERAL'S INITIAL DATA REQUEST DATED  
SEPTEMBER 17, 2007  
REQUEST 17

RESPONSIBLE PERSON: Jerry Purvis  
COMPANY: East Kentucky Power Cooperative, Inc.

Request 17. Please describe in detail the Company's rationale for the additional pump.

Response 17. The additional pump provides one duplicate backup should one pump fail. This redundancy also allows for maintenance that may require that a pump be removed from service.