Pierie, Thomas C

Zamberlan, Tony [tony.zamberlan@ldpgroup.com]

Sent:

Thursday, December 02, 2004 1:41 PM

Pierie, Tom To:

August 10, 2007 **Data Center** Missouri Public Service Commission

Subject: RE: Upper reservoir Warrick Probes

Tom.

They were supposed to do that today. I thought it was the 125VDC but we were up at the Upper Reservoir to pull up the high level Warrick probes to 1596.5 and we heard a terrible noise come from the Warrick relay. It lasted a couple seconds. We were either going to replace it or swap it with the high level probe to see if it is a relay problem or something else.

That is the current status.

Tony Zamberlan

LDP Consulting Engineers Inc.

Ph; 636,787.0032 x13 Cell: 636.236.1337 email: tonyz@ldpgroup.com

From: Pierie, Tom [mailto:TPierie@ameren.com] Sent: Thursday, December 02, 2004 1:38 PM

To: Zamberlan, Tony

Subject: RE: Upper reservoir Warrick Probes

Did we replace the bad Warrick coil?

----Original Message----

From: Zamberlan, Tony [mailto:tony.zamberlan@ldpgroup.com]

Sent: Thursday, December 02, 2004 8:27 AM

To: Pierle, Tom

Subject: FW: Upper reservoir Warrick Probes

WOOHOO!!!

⊸Tony Zamberlan

LDP Consulting Engineers Inc.

Ph: 636.787.0032 x13 Cell: 636,236,1337 email: tonyz@ldpgroup.com

From: Cooper, Richard D [mailto:RCooper@ameren.com]

Sent: Thursday, December 02, 2004 8:23 AM

To: Zamberian, Tony

Cc: Bluemner, Steven D; Iselin, Christopher A; Pierie, Tom; Hawkins, Chris P; DL TaumSauk - Everyone;

Ferguson, Robert W

Subject: RE: Upper reservoir Warrick Probes

OK. I'm beginning to understand. Last evening both units were on and we got one of those "low low" level alarms on the alarm summery. The units stayed on so I guess the time delays are working. We pumped back up this morning to 1596.1 or so and I went up to the upper reservoir to look at the level and it was approx 6" below the top batten

> exhibit wa. 7/24/07 Case No. ES-2007-04 center

12/27/2005

bar at the visitor platform. I drove around to the gage house and it was about a foot below the batten bar. I went to the low point in the parapet wall and it was about 6" below the batten bar. The PD had either just started Unit 2 in gen or it had been running for maybe 10 min at the most. Looks like we have the levels set just right. Per the trend it looks like Unit 1 shutdown at 1592 and Unit 2 shutdown at 1596. Everything looked good. We didn't get any lockouts on the units so no extreme levels came in. Our total volume is around 4880 ac/ft and it looks like the lowest the readings got in the lower reservoir were 736.5 at the dam and 734 at the tailrace. So far so good.

Thanks, Rick

----Original Message----

From: Zamberlan, Tony [mailto:tony.zamberlan@ldpgroup.com]

Sent: Thursday, December 02, 2004 7:35 AM

To: Cooper, Richard D **Cc:** Pierie, Tom

Subject: RE: Upper reservoir Warrick Probes

Rick,

I have to yield to Tom Pierie on the wiring design since I did not do that but I can tell you that a high and low Warrick probe go into the Upper Reservoir PLC and a high and a low Warrick probe go into the Common PLC. It was the low probe in the Common PLC that is intermittently coming into alarm and the probe that caused the trip the other day during Gen. All four of these points have timers on them to verify that the signal is accurate and not intermittent.

Thanks!

—Tony Zamberlan

LDP Consulting Engineers Inc.

Ph: 636.787.0032 x13
Cell: 636.236.1337
email: tonyz@ldpgroup.com

From: Cooper, Richard D [mailto:RCooper@ameren.com]

Sent: Thursday, December 02, 2004 7:15 AM

To: Zamberlan, Tony

Subject: FW: Upper reservoir Warrick Probes

While I was writing the email below I got to thinking that the software timers we installed only effect the Warrick probe that is going into the PLC. The one that is hardwired to the plant relays is still instantaneous, right? I'm confused. If we don't have a timer contact in the Warrick probe going to the plant relays, should we? Are we sure the relay that was making the intermittent operation at the upper reservoir this afternoon is the one going to the PLC? The drawing we have for the 86DT only shows the contact from the old Warrick probe. It doesn't show the one from the PLC Warrick probe. I assume either one will pick up 86DT. Are the two contacts in parallel? Do we know which Warrick did the picking last night?

Rick

----Original Message-----From: Cooper, Richard D

12/27/2005

Sent: Wednesday, December 01, 2004 4:18 PM

To: Iselin, Christopher A; OSAG; Power Supply, Supervisor; Schoolcraft, Steven J; Buhr, Thomas A;

Thompson, Phillip M.

Cc: Scott, Jeff T; Pierie, Tom; Zamberlan, Tony Subject: Upper reservoir Warrick Probes

The guys investigated the problem we had last night with the Warrick probe emergency level trips at the upper reservoir. We may have a bad Warrick relay that is dropping out intermittently. We will try and change this out tomorrow. A software timer was added to these trips to delay tripping the units on this kind of intermittent relay operation.

The Warrick probes are back in service.

Rick

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Name (Please Print)	Company Name	License #	Badge#	i In	Out
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Josh Campbull	2021	544672	V 20	0930	0949
REITH LIDSY	GE	908 WKS	62124	0950	1638
Aldan Daughertx	571	199 356	V-20	1113	1205
Ablan Daughertx Les Valentine	Ameren	96090	11079	1/40	1440
Bios Livingsson	pcdos d	856 LT1		12:18	1330
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