

Exhibit No.:
Issue(s): Utility Waste Landfill Issues
Raised by Charles H. Norris
Witness: Craig J. Giesmann
Sponsoring Party: Union Electric Company
Type of Exhibit: Sur-Surrebuttal Testimony
Case No.: EA-2012-0281
Date Testimony Prepared: October 11, 2013

MISSOURI PUBLIC SERVICE COMMISSION

Case No. EA-2012-0281

SUR-SURREBUTTAL TESTIMONY

OF

CRAIG J. GIESMANN

ON

BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a AMEREN MISSOURI**

**St. Louis, Missouri
October 11, 2013**

SUR-SURREBUTTAL TESTIMONY

OF

CRAIG J. GIESMANN

CASE NO. EA-2012-0281

1 **Q. Please state your name and business address.**

2 A. Craig J. Giesmann, Union Electric Company Power Operation Services, 3700
3 South Lindbergh, Sunset Hills, Missouri 63127.

4 **Q. What is your position with Union Electric Company d/b/a Ameren Missouri**
5 **(“Ameren Missouri” or “Company”)?**

6 A. I am the Managing Supervisor of Hydro Engineering.

7 **Q. Are you the same Craig J. Giesmann who filed direct testimony in this case**
8 **on April 26, 2013 and Surrebuttal Testimony on September 13, 2013?**

9 A. Yes.

10 **Q. What is the purpose of your sur-surrebuttal testimony in this proceeding?**

11 A. The purpose of my sur-surrebuttal testimony is to respond to certain portions of
12 the cross-surrebuttal testimony of Intervenor’s witness Charles H. Norris.

13 **Q. Mr. Norris claims that Ameren Missouri has not accounted for all of the**
14 **capital and operating costs associated with the proposed utility waste landfill (“UWL”) and**
15 **he generally points to three categories – construction, operations and closure, and post-**
16 **closure. Is he correct?**

17 A. No, he is not.

18 **Q. Please explain why he is not correct when he contends that we have not**
19 **adequately accounted for construction costs.**

1 A. He claims that we have not adequately accounted for the cost of importing clay to
2 the site, but his claim is untrue. As the data request response he references indicates, it is our
3 expectation that we will obtain clay from a location that is in relatively close proximity to the
4 proposed UWL site, and on that basis we have used a \$10 per cubic yard cost estimate (which
5 includes excavation and delivery to the site), which was provided by the engineers who designed
6 the UWL for the clay that will be needed. Even if we had to obtain clay from farther away and
7 thus incur some additional costs, the additional costs would be lost in the rounding of the costs of
8 constructing the UWL given that the estimated cost for clay is just \$183,000 – or about 6 tenths
9 of 1 percent of the total cost. It is our experience that contractors (who have not been chosen yet,
10 but will be) typically are aware of and have access to local clay sources, but they will not
11 disclose them prior to being awarded the bid so as to preserve their competitive advantage.

12 **Q. Mr. Norris also claims that you have not properly estimated the costs of**
13 **other soils needed for the project. Please respond.**

14 A. As was the case with his claims about the clay, Mr. Norris is similarly uninformed
15 on this issue. Once again, we have included realistic estimates of the delivered costs of all of the
16 soils that we will need in the detailed cost estimates supplied to the Staff in response to Staff's
17 data requests. I am unaware of Mr. Norris having any experience with or knowledge of local
18 earthwork unit costs. Nor does he appear to be aware that the fill we will need is widely
19 available throughout the Missouri River bottoms, or that subgrade and berm fill – which he
20 references – cost essentially the same. The fact that Mr. Norris does not calculate or estimate
21 any of the costs he says that we haven't accounted for demonstrates his lack of familiarity with
22 our proposal and general construction practice. It is simply not true that we have not adequately
23 accounted for these costs.

1 **Q. Mr. Norris next claims that you have not accounted for future costs that he**
2 **suggests would be incurred from floods and seismic events. How do you respond?**

3 A. The underlying premise of his contention is that there will be material repair costs
4 necessitated by such events because the design and construction of the UWL will be susceptible
5 to damage that would cause us to incur such costs. His premise is false.

6 **Q. Why?**

7 A. As I have already testified, detailed evaluations of the nature and extent of
8 potential site-specific hazards have been completed and have been provided to the Missouri
9 Department of Natural Resources (“MDNR”) as part of the Construction Permit Application
10 (“CPA”). The UWL was specifically designed to mitigate such hazards *without* any material
11 repair costs. Indeed, the proposed UWL – due to an additional Franklin County requirement –
12 contains design features that engineering analysis would indicate are not needed. For example,
13 Franklin County requires that the exterior slopes be armored with concrete. Consequently, we
14 added a fabric-formed concrete mat as additional, redundant protection against floods. We
15 accounted for settlement in the design, and in fact, we used long-held civil engineering
16 calculations that tend to yield conservative (over-estimate) settlement. In terms of seismic
17 hazard potential, we designed the facility to withstand higher peak horizontal ground
18 acceleration (i.e., a stronger seismic event) that is more conservative than required by current
19 regulation or standard practice. It is very improbable that the UWL will sustain damage that
20 would require the kind of repair costs that Mr. Norris claims we would have to incur.

21 **Q. Does Mr. Norris quantify in any way the potential for these events (flood and**
22 **seismic) to occur or the anticipated associated cost of repair?**

1 A. Not at all. Although he makes the claim that both the potential for these events
2 and the cost of repair is quantifiable, Mr. Norris speaks only in speculative generalities and
3 offers no calculations or any rationale for his opinion.

4 **Q. Do you agree that “meaningful comparisons among potential sites” cannot be**
5 **made without accounting for the “risk-adjusted cost of statistical events” referenced by**
6 **Mr. Norris on page 6 of his testimony?**

7 A. No, I do not. We did perform detailed statistical analyses relating to recurrences
8 of floods and seismic events, and they were accounted for in the engineering calculations used to
9 design the UWL. Any non-negligible damage was predicted and then accounted for in the
10 design. This is not a case where the cost of constructing and operating the UWL adjacent to the
11 Labadie site presents a “close call” in terms of cost comparisons to other alternatives. Even if we
12 were to be forced to take the step of sending 160 to 200 trucks *every single working day* away
13 from the plant (doing so would present its own set of hazards and would also expose Ameren
14 Missouri to escalating transportation costs over the coming decades), we are still talking about
15 approximately \$100 million or more of additional costs at another UWL site. These speculative,
16 additional costs suggested by Mr. Norris would never be high enough to come close to bridging
17 the gap between the cost of the proposed UWL versus the costs of other alternatives.

18 **Q. Mr. Norris next claims that you have not sufficiently accounted for closure**
19 **and post-closure costs. Please address these claims.**

20 A. Mr. Norris makes several statements with which I take issue. First, he implies
21 that there are closure- or post-closure costs associated with a UWL that one would otherwise not
22 see for, as an example, a municipal waste landfill. His point is apparently that while one might
23 not need to account for as many costs for a municipal waste landfill, one must do so for a UWL.
24 I disagree.

1 **Q. Why do you disagree?**

2 A. Coal Combustion Products (“CCPs”) like those to be deposited in the UWL are
3 inherently more stable than municipal wastes due to the fact that they set-up like concrete. They
4 are less permeable and therefore produce much less leachate, and they are inorganic in nature,
5 which means the wastes do not decay and create methane gas like municipal wastes. As a result,
6 a UWL actually becomes more stable over time. Mr. Norris’s claim that the danger associated
7 with a municipal landfill declines over time is also incorrect. The *volume* of waste in a
8 municipal landfill may decline over time as the organics decay, but much of the contents (e.g.,
9 plastics, metals, household chemicals, to name a few) remain. Dangers associated with
10 municipal landfills may increase with time, such as underground fires caused by the heat of
11 decay (fueled by methane produced by the landfill) or differential settlement of the cover
12 (because the volume does decline). A UWL has none of those hazards.

13 **Q. But isn’t Mr. Norris correct in suggesting that you have not sufficiently**
14 **accounted for closure and post-closure costs?**

15 A. He is not correct with respect to the closure and 20-year regulatory post-closure
16 period costs that we have properly accounted for. He presents no support for any claim that our
17 estimates are incorrect. The estimates are site-specific based upon engineering analyses. He is
18 literally “correct” that we have not included cost estimates after the 20-year regulatory post-
19 closure period, but his claim creates the misleading impression that this somehow establishes that
20 the proposed UWL is not the least-cost option. The 20-year period is a regulatory requirement
21 that would apply equally to any other site, thereby making the comparison a moot point.

22 **Q. Mr. Norris also says that there are other “waste-related costs associated with**
23 **the proposed UWL that are not included in the documents provided with the CCN**
24 **application” (page 6, l. 21-23). Is that true?**

1 A. No, it is false. His testimony makes clear that he is making the claim that costs to
2 close the existing ash ponds are costs “associated with” the proposed UWL. Nothing could be
3 further from the truth. Whether we build a UWL adjacent to the existing Labadie Energy Center,
4 use thousands of trucks per year to haul CCPs to another Ameren Missouri-owned UWL, or use
5 thousands of trucks per year to haul CCPs to a third-party landfill, we will still have to take
6 whatever steps our environmental regulators require (and to incur related costs) with respect to
7 the existing ash ponds. Ameren Missouri will, of course, comply with whatever regulatory
8 requirements apply to the ultimate closure of the existing ash impoundments, and it has the
9 financial wherewithal to do so.

10 **Q. Mr. Norris also discusses the proposed UWL’s liner and its proximity to**
11 **groundwater and suggests there could be unaccounted-for costs related to this issue. Do**
12 **you have response?**

13 A. Yes, I do. Ameren Missouri witness Steven Putrich, in his sur-surrebuttal
14 testimony, will address Mr. Norris’s claims about whether the liner is appropriately designed and
15 the relationship of that issue to proposed USEPA regulations. As Mr. Putrich testifies, Mr.
16 Norris’s claim that the proposed design does not meet the proposed regulation is false. And thus
17 Mr. Norris’s claim that additional fill might have to be brought in (at additional cost) is also
18 false. However, even if additional fill did have to be brought in, the cost would be very minimal
19 in relation to the overall costs of the option of building the proposed UWL versus other options.

20 **Q. But doesn’t Mr. Norris claim some tie between the existing ash ponds and the**
21 **groundwater monitoring related to the proposed UWL?**

22 A. Yes, he does. As discussed in the sur-surrebuttal testimony of Ameren Missouri
23 witness Tyler Gass, Mr. Norris’s claims have no basis in facts or data, and are in fact refuted by
24 the actual groundwater monitoring data from wells that are down gradient of the existing ash

1 ponds. As prior testimony submitted in this docket also indicates, the existing groundwater
2 monitoring network, approved by MDNR, is robust and sufficient to protect groundwater in the
3 area. There are both upgradient and downgradient wells that ring the site. The background
4 monitoring results (two rounds of which were discussed in the surrebuttal testimony of Ameren
5 Missouri witness Lisa J.N. Bradley) show no impact from the existing ash ponds despite 40-plus
6 years of operation. We will complete six more quarterly rounds of monitoring to fully
7 characterize the ambient conditions both up and down gradient from the site. We will then
8 regularly monitor groundwater quality using the 28 wells, including testing for CCP constituents.
9 We have accounted for these costs, and there simply are no unaccounted-for costs as Mr. Norris
10 – without support – claims.

11 Intra-well and inter-well data evaluations will be utilized as required. Data collection
12 techniques, which are standard for the industry, will provide a robust amount of data for
13 evaluation of the UWL's performance. Because of their proximity to the existing ash
14 impoundments, these wells will also enable early detection of contamination from the existing
15 ash ponds, should it occur. As Mr. Gass points out in his testimony, the horizontal flow of
16 groundwater in this area is orders of magnitude greater than the vertical flow – which confirms
17 that the 28 wells will pick up any potential contamination from the existing impoundments.

18 **Q. Mr. Norris next claims that Ameren Missouri is not qualified to operate the**
19 **landfill because of his claims about management of existing CCPs, his criticism of Ameren**
20 **Missouri's groundwater monitoring plan, and criticisms of management of CCPs by**
21 **affiliates of Ameren in Illinois. Please respond.**

22 A. I have addressed the incorrect claim of groundwater contamination of the
23 proposed UWL site from the existing ash ponds above, as does Mr. Gass in his sur-surrebuttal
24 testimony. Both Mr. Gass and I have also addressed the adequacy of the MNDR-approved

1 groundwater monitoring system that we have in place. The monitoring system is required by
2 regulation to utilize adaptive management, and will be monitored by the MDNR. In addition,
3 Ameren Missouri witness Gary King already addressed the misinformation that Intervenors –
4 and now Mr. Norris – have disseminated regarding coal ash impoundments operated by Ameren
5 affiliates (and in one case, Ameren Missouri) in Illinois.

6 **Q. Is there other evidence that Ameren Missouri is qualified to operate the**
7 **proposed UWL?**

8 A. MDNR has already determined that Ameren Missouri is qualified to operate a
9 UWL that is essentially the same as the one proposed here – the UWL that is currently in
10 operation at our Sioux Energy Center. Moreover, Ameren Missouri has extensive experience
11 with large earth moving operations, and those earth moving operations are similar to the
12 operation of dry UWL cells. Finally, even Mr. Norris acknowledges that Ameren Missouri's
13 past practices in managing CCPs are consistent with those used in the industry. The fact that ash
14 ponds have been used in the past does not diminish Ameren Missouri's qualifications to manage
15 a UWL in the future.

16 **Q. Starting on page 9, line 11 and continuing to page 10, line 16, Mr. Norris**
17 **makes a number of claims regarding groundwater monitoring data from Labadie. Are the**
18 **“facts” he recites accurate?**

19 A. No, they are not. As referenced above, the only groundwater monitoring results
20 from the Labadie plant, which are discussed in detail in Ms. Bradley's surrebuttal testimony,
21 reflect no CCP contamination. I will address his reference to a report about the Meramec Energy
22 Center below.

1 **Q. Before you do that, would you please comment on his claims about your**
2 **response to Staff DR No. 14 and wells associated with the construction of the fly ash pond**
3 **at Labadie in 1992?**

4 A. Mr. Norris is mistaken when he claims that there were groundwater quality
5 monitoring wells installed at Labadie prior to the 1992 construction permit for the newer ash
6 pond. There were *piezometers* installed soon after the plant's original construction to determine
7 groundwater *elevations*. Those piezometers were installed to monitor groundwater elevation to
8 ensure that the existing ponds were not contributing to residual high groundwater following a
9 flood event. They were not installed as groundwater quality monitoring devices, and no
10 groundwater quality information was obtained. The wells were eventually abandoned. Mr.
11 Norris's reference to Staff DR 14 is apparently an attempt to suggest that Ameren Missouri has
12 somehow withheld groundwater monitoring information. As already explained, there was no
13 such information, and the information we do have was presented and discussed in Ameren
14 Missouri's surrebuttal testimony – it shows no contamination. Moreover, the reason the 1992
15 document referenced by Mr. Norris was “not provided to MPSC Staff in response to DR 14,”
16 was because it has nothing to do with the question asked by the Staff in DR 14. That DR simply
17 requested “a description of the existing Labadie waste impoundments including acreage,
18 capacity, liner system (if applicable), and permitting status.” We provided that information.

19 **Q. Why does Mr. Norris include a 1997 hydrogeological assessment from**
20 **Ameren Missouri's Meramec Energy Center as part of his testimony?**

21 A. Apparently, Mr. Norris is attempting to take isolated sections of the Meramec
22 study and suggest that groundwater quality at Meramec has been negatively affected by the
23 presence of the ash ponds there – and then thereby falsely conclude that the situation at the
24 Labadie Plant is similar. Upon a full review of the CH2M Hill study of the Meramec

1 groundwater included by Mr. Norris as an exhibit to his testimony, one can readily see that it
2 fails to support Mr. Norris's hypothesis. In fact, the report makes two important conclusions
3 when taken in context of the entire report, which are as follows: (1) "Based on the data made
4 available to CH2M Hill and summarized in the above tables, it appears that the ash ponds do not
5 have a significant influence on local groundwater quality." (2) "In conclusion, based upon the
6 data provided by UE, there appears to be no significant health or environmental risks associated
7 with potential exposure to groundwater or surface water affected by ash pond operations at the
8 UE Meramec site." These conclusions directly contradict Mr. Norris's proposition.

9 **Q. Mr. Norris references "lateral leakage" from the existing ash ponds and**
10 **claims that all Ameren Missouri did was "bury" a seep, which, he dramatically concludes,**
11 **"does not remediate it; it merely hides it from sight" (page 11, line 1). Did Ameren**
12 **Missouri "bury" a seep?**

13 A. No, it did not. I already addressed this issue at page 13, lines 7-18, of my
14 surrebuttal testimony. We stopped seepage from the existing ash impoundments by installing
15 two underground slurry walls (essentially retaining walls), each of them over 600' long and over
16 30' deep. These underground walls act as a physical barrier to any seepage in the area. As has
17 already been addressed, there is no evidence (and, in fact, there is evidence to the contrary) that
18 any past seeps have resulted in contamination downgradient or upgradient of the existing ash
19 ponds.

20 **Q. Mr. Norris says that he disagrees with Staff witness Claire Eubank's**
21 **testimony that the proposed UWL promotes the public interest, essentially arguing that it**
22 **should be put somewhere else. Why does the proposed landfill promote the public interest?**

23 A. Ameren Missouri's attorneys will also address this issue in briefing in this case
24 given, as I understand it, that the primary public interest at issue in a case involving a certificate

1 of convenience and necessity application is the interest of the utility's customers in continuing to
2 receive safe and adequate service at the lowest reasonable cost. The bottom line is that the
3 Labadie Energy Center is an integral part of Ameren Missouri's power generation system, and is
4 indeed the Company's most-economical coal-fired base load plant and the second lowest cost
5 base load plant (behind the Callaway Energy Center) in our fleet. Like any other coal-fired
6 plant, it produces CCPs, and they must be disposed of to the extent we cannot beneficially reuse
7 them. The proposed UWL is the lowest-cost option for our customers by a large margin. It is
8 not in the interest of anyone to force 160 to 200 trucks every working day for the next
9 approximately 25 years to traverse the roads leaving the plant to wherever the CCPs would have
10 to be transported at a substantially higher cost, when we have a properly engineered solution
11 right next to the plant. If the MDNR approves the CPA, as we expect, it will establish that the
12 agency with the responsibility of protecting human health and the environment – and the
13 expertise in doing so – has determined that the proposed UWL is appropriate for this location
14 and is protective of human health and the environment. Ameren Missouri and our consultants
15 have already arrived at this conclusion, based upon the vast amounts of site reconnaissance, data
16 collection, and engineering analyses already performed and submitted to MDNR.

17 **Q. Mr. Norris next claims that the CCPs are “reactive,” suggesting a hazard. Is**
18 **his claim true?**

19 **A.** No, it is not. His statement appears to be an attempt to generate an emotional
20 reaction or decision by the Commission, rather than one based upon the facts. As Ameren
21 Missouri witness Lisa J.N. Bradley discusses in her surrebuttal testimony, CCPs consist mostly
22 of inorganic minerals, and they will set-up like concrete in the UWL.

23 **Q. Mr. Norris seems to criticize Ms. Eubanks for noting that the proposed UWL**
24 **is an improvement over the existing ash ponds. Do the existing ash ponds have anything to**

1 **do with whether the plant's CCN should be amended to encompass the area of the**
2 **proposed UWL?**

3 A. No, they do not. All of Mr. Norris's claims about risks from the existing ash
4 ponds would apply equally whether Ameren Missouri builds the proposed UWL, builds a UWL
5 elsewhere, or trucks CCPs to a third-party landfill. Nor does Mr. Norris's bare statement that the
6 UWL will add to risks withstand scrutiny. We have addressed all of his so-called "risks" in this
7 and other testimony. Mr. Norris is a geologist; he is not a degreed, licensed and experienced
8 engineer. All of the risks he mentions were extensively evaluated as part of the PSI, DSI and
9 CPA processes, and we have addressed them appropriately in the design and engineering of the
10 UWL. MDNR will be the final judge regarding these issues, but based upon MDNR's comments
11 to-date, I have every expectation that MDNR will conclude that we have properly evaluated such
12 risks, and have properly designed and engineered the proposed UWL.

13 **Q. Mr. Norris next criticizes Staff witness John Cassidy, claiming that his**
14 **conclusions that the proposed UWL at the Labadie site is the lowest cost option is "without**
15 **support and is in error." Did Mr. Cassidy reach the wrong conclusion?**

16 A. No, he did not. Mr. Cassidy testified to the same thing that I testified to in my
17 direct testimony and later in my surrebuttal testimony based upon actual data as opposed to bare
18 allegations. I explained the data that Mr. Cassidy relied upon in detail at pages 13 to 16 of my
19 surrebuttal testimony. I also presented an updated, Labadie-specific revenue requirement study
20 in my surrebuttal testimony that confirmed what we have said all along, and what Mr. Cassidy
21 testified to in his rebuttal testimony.

22 **Q. But Mr. Norris claims things like tipping fees in 2010 are "generally**
23 **consistent" with the 2003-2004 rates initially used and claims that rail transportation is**
24 **substantially cheaper than by truck. How do you respond?**

1 A. His reference to rail rates was taken from an e-mail from the then-operator of
2 what was then the Fred Weber landfill. The numbers provided by Mr. Doug Weible of Fred
3 Weber were estimates, and most certainly did not include the necessary – and substantial --
4 infrastructure that would be required to load, move and unload large amounts of ash from
5 Labadie to their landfill. Infrastructure required to perform rail movement of ash would include
6 loading and unloading facilities (both at Labadie and the landfill – neither site has these facilities
7 today), rail sidings, and agreements with rail lines to provide dedicated enclosed tank-type rail
8 cars. There would also be significant operations and maintenance costs, such as for licensed
9 locomotive engineer companies to take the trains from the loading facility to the mainline and
10 from the mainline to the landfill's unloading facilities. Although detailed estimates on these
11 infrastructure costs and other costs have not been performed, based upon my experience in
12 engineering and constructing facilities of this type, I would conservatively estimate that the costs
13 of such facilities would likely be in the tens of millions of dollars, even approaching \$100
14 million or more (again, not counting annual operations and maintenance costs). We also
15 obtained 2013 data on tipping fees at area landfills, and these fees have increased by
16 approximately 200-300 percent since the earlier studies were done, and those estimates also do
17 not include the cost of additional loading and unloading facilities that would be needed both at
18 Labadie and at the third-party landfill plus these higher operations and maintenance costs. As
19 one might expect, transportation costs have also escalated significantly, and by similar
20 percentages. These figures were presented previously in the revenue requirement study
21 submitted as part of my surrebuttal and support the decision to utilize the proposed UWL site.

22 **Q. Mr. Norris next criticizes Ameren Missouri's consideration of alternative**
23 **sites, the suggestion being that the proposed site at Labadie is inferior to other possible**
24 **sites. How do you respond?**

1 A. When Ameren Missouri first recognized that it would need to find alternatives to
2 dispose of coal combustion products (“CCPs”) from its coal-fired plants, including specifically
3 Meramec, Rush Island and Labadie, it first considered the possibility of constructing one, large
4 regional UWL to serve all three plants. However, as that effort progressed, Ameren Missouri
5 also continued to look for other, more superior options based upon considerations of cost,
6 operations, and safety. After further study, it became apparent that there was land available
7 adjacent to the existing Labadie plant site. If this land could be purchased and if further study
8 determined that it was appropriate for construction of a UWL, it could satisfy these
9 considerations of cost, operations, and safety. In particular to cost considerations, Ameren
10 Missouri relied upon the study of 22 alternate sites performed to evaluate the potential cost of
11 transporting CCPs off-site as opposed to the cost of constructing and operating a UWL at the
12 facility itself. We were able to purchase the land at a reasonable cost and, as I and other Ameren
13 Missouri witnesses have addressed in detail in our earlier testimonies, the site indeed is
14 appropriate, as evidenced by the Preliminary and Detailed Site Investigations submitted to and
15 approved by MDNR.

16 **Q. But isn’t it possible that there could have been other appropriate sites in the**
17 **vicinity of Labadie?**

18 A. Anything is possible, but the proposed site has significant advantages that no
19 other site can match. Keep in mind that we would have had to incur essentially all of the same
20 permitting and engineering costs to develop a UWL elsewhere. We would have had to go
21 through the same permitting process and same CCN process. We would have had to construct –
22 at a minimum --essentially the same facility at, again at a minimum, a similar cost. The problem
23 with other sites, however, is that there would have been significant operational, cost and safety
24 implications not present at the Labadie site. As discussed in my surrebuttal testimony and to

1 some extent above, we would have had to incur significant transportation costs to truck the CCPs
2 to the offsite facility. We would have had to incur tens of millions of dollars, or more, in
3 additional loading and unloading facilities – and operations and maintenance costs to operate
4 them – in order to load and unload the trucks. And we would have had to send 160 to 200 trucks
5 per working day from the Labadie Energy Center to this offsite UWL. The question we asked
6 ourselves was then “Why?” Why would we very significantly raise costs for customers and
7 create the significant hazards posed by such heavy truck traffic when we had a suitable and much
8 more cost-effective site literally right next door?

9 In addition, finding an area suited for construction of a new UWL is a much more
10 daunting task than Mr. Norris suggests. When looking for such an area, there is a substantial
11 amount of pre-screening criteria necessary to review for each potential site. Mr. Norris fails to
12 point out that evaluation of alternative sites must include potential zoning changes, proximity to
13 residential areas, and land availability, in addition to all of the other factors (geology, seismicity,
14 etc.) discussed above. The complexity of locating potential sites is made even more obvious in
15 Mr. Norris’s failure to identify any specific alternative site, let alone one that meets all of these
16 requirements.

17 **Q. Finally, Mr. Norris notes that he “qualitatively” examined the possibility of**
18 **using an alternative site which it appears he contends should have been chosen farther west**
19 **of the Labadie facility. He suggests that finding such a site would not be difficult. Do you**
20 **agree?**

21 **A.** No, I do not agree. First, he completely ignores the significant disadvantages of
22 an offsite facility, which I summarized in my answer to the prior question. In fact, based upon
23 the maps he included as his Exhibits 4, 5 and 6, his suggestion appears to be that we select a site
24 a considerable distance from the plant to the West. The farther away we go, the higher the

1 transportation costs and the greater the hazards from such a high number of trucks traversing the
2 roads each day. Second, his contention is based upon the underlying false premise of his entire
3 testimony; that is, that the proposed site is unsuitable, despite overwhelming evidence to the
4 contrary (a determination already refuted by MDNR's approval of the Detailed Site
5 Investigation), that there currently exist groundwater contamination concerns, and that there will
6 be groundwater contamination concerns. We've demonstrated, through evidence and not
7 speculation, that these premises are false. Could one literally build the UWL elsewhere?
8 Anything is possible. Should it be built elsewhere? The evidence establishes that the answer to
9 that question is "no." We shouldn't burden customers with significantly higher costs, create
10 greater hazards, and create greater operational challenges when we have a suitable site right next
11 to the plant.

12 **Q. Aside from cost considerations, which you've testified overwhelmingly favor**
13 **constructing the proposed UWL onsite, could you avoid the safety issues associated with**
14 **such a large number of trucks by using rail transportation?**

15 A. This, too, falls in the "anything is possible" category, but there are several
16 problems with this idea. Reading Mr. Norris's testimony, one can see that he focuses on rail
17 lines leading west from the plant, with the idea apparently being that we could just use the rail
18 cars that brought the coal to the plant to carry the ash to some unspecified, hypothetical site to
19 the west. I've already explained in my surrebuttal testimony why this is not possible. Similarly,
20 such a solution apparently assumes that the infrastructure is in place to load the ash and unload it.
21 Again, I have explained why that is not true either, and have explained the very high costs such
22 an option would pose. Consider the fact that the entire UWL, after all four phases are built, is
23 estimated to cost approximately \$85 million, which I am confident is less than the cost of rail
24 infrastructure that would have to be put into place. I cannot envision a scenario where it would

1 make sense to make an upfront investment in rail infrastructure that exceeds the investment
2 needed for the facility that the rail infrastructure is designed to support.

3 **Q. Why wouldn't the Company be indifferent to building such infrastructure**
4 **given that the Company could earn a return on that investment for the next approximately**
5 **25 years?**

6 A. While it is true that if we were forced to make that investment we could earn a
7 return on it, the Company doesn't view its role as a regulated public utility to be to propose
8 projects that have a significantly higher cost to customers simply because the Company could
9 increase its earnings by building more expensive projects. It makes no more sense to
10 substantially increase customers' rates by pursuing a rail option than it does to substantially
11 increase customers' rates by trucking ash away from the plant for the next 25 years when we
12 have an appropriate, cost-effective solution onsite.

13 **Q. Do you have any other comments on Mr. Norris's Exhibits 4, 5 and 6?**

14 A. Exhibits 4, 5, and 6 show diagrams of the state of Missouri with certain features
15 overlaid on them. These features are seismic hazard areas, railroads, and geological concerns
16 (sinkholes, etc.). The Labadie Power Plant is shown on the maps, as well as a site shown
17 relatively close to Kansas City, MO, at 165 miles from the plant. Mr. Norris seems to imply that
18 the area shown on these diagrams near Kansas City may be a better choice for the UWL, whether
19 or not they are in Ameren Missouri's service territory. While there is no specific site described,
20 it can be easily concluded that such a site, even if it would meet all other siting criteria, would be
21 uneconomical. Assuming loading/unloading infrastructure is already in place, it is generally true
22 that the variable cost of rail transportation is less than truck transportation. However, that
23 infrastructure is not in place as I've discussed above. Even if one did not go 165 miles to the
24 west to find a site, according to Mr. Norris's diagrams, one would have to get a substantial

1 distance from Labadie to avoid many of the “problems” he claims exist at the proposed UWL
2 site. Either way, we are talking about a far more costly option than the one we have proposed.
3 Because Mr. Norris does not identify any specific potential site that meets all the requirements
4 and does not provide any related calculation as to the cost of an alternate site, his claim that his
5 firm “looked at places” means nothing in terms of a true comparison and evaluation of sites
6 alternate to Labadie.

7 **Q. Does this conclude your sur-surrebuttal testimony?**

8 **A.** Yes, it does.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of the Application of Union Electric)
Company d/b/a Ameren Missouri for Permission and)
Approval and a Certificate of Public)
Convenience and Necessity Authorizing)
it to Construct, Install, Own,) File No. EA-2012-0281
Operate, Maintain, and Otherwise Control and Manage)
A Utility Waste Landfill and Related Facilities at its)
Labadie Energy Center.)

AFFIDAVIT OF CRAIG J. GIESMANN

STATE OF MISSOURI)
) ss
COUNTY OF ST. LOUIS)

Craig J. Giesmann, being first duly sworn on his oath, states:

1. My name is Craig J. Giesmann. I am employed by Union Electric Company Power Operation Services, 3700 South Lindbergh, Sunset Hills, Missouri, as Managing Supervisor of Hydro Engineering.

2. Attached hereto and made a part hereof for all purposes is my Sur-Surrebuttal Testimony on behalf of Union Electric Company d/b/a Ameren Missouri consisting of 19 pages, all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.



Craig J. Giesmann

Subscribed and sworn to before me this 11th day of October, 2013.



Notary Public

My commission expires: 4/19/17

