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To: The St. Louis Site Remediation Task Force
 From: Glenn A. Carlson, P.E., Attorney *GAC*
 Date: January 16, 1995
 Subj: Response to Union Electric Position Statement on
 Disposal of St. Louis Site Waste at the Callaway Nuclear Plant

This memorandum responds to some of the statements made by Mr. C.W. Mueller, President and CEO of the Union Electric Company (UE) in a letter dated September 12, 1994, to Mr. Thomas Grumbley, Assistant Secretary of Energy, Office of Environmental Restoration and Waste Management. In his letter, Mr. Mueller opposes the suggestion that property owned by UE in the vicinity of UE's Callaway Nuclear Plant be considered as a possible site for the disposal of U.S. Department of Energy (DOE) low-level radioactive waste (LLRW) from the St. Louis Site to be cleaned up under the Formerly Utilized Remedial Action Program (FUSRAP). Mr. Mueller's letter was distributed by Ms. Eileen O'Connor of UE at a meeting of a working group of the St. Louis Site Remediation Task Force formed to explore the possibility of locating a FUSRAP disposal facility somewhere in Missouri, perhaps, near the Callaway Nuclear Plant.

While the suitability of the approximately 7000 acres of UE property near the Callaway Plant site as a location for a disposal facility for the St. Louis Site waste is a long way from being demonstrated, Mr. Mueller's statement that the Callaway Plant site is "wholly inappropriate" as a potential FUSRAP disposal site is unsupported by fact. His letter contains several misstatements and fails to counter the argument that a disposal site in the vicinity of the Callaway Nuclear Plant should be explored as one of many possible solutions to the St. Louis Site radioactive waste disposal problems.

RESPONSES TO UE POSITION STATEMENTS

UE: "The Callaway Plant site is not 'Perpetually Contaminated.'"

Response:

While describing the Callaway Plant site as "perpetually contaminated" may overstate the facts, UE's statement that "Under our [Nuclear Regulatory Commission (NRC)] license, Callaway Plant will be decommissioned . . . for unrestricted use" is itself little more than a hopeful wish at this time.

Decommissioning of a nuclear power plant on the scale of the Callaway Plant has not even been attempted, let alone accomplished. The largest commercial plant for which decommissioning has been attempted is the Shippingport Atomic Power Station. The 231-Mwt Shippingport plant is only about one-sixteenth the size of the 3579-MWt Callaway Plant. The

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technology to decommission large nuclear power plants such as the Callaway Plant has yet to be demonstrated, and the economic feasibility of decommissioning may never be demonstrated.

The NRC recognizes that decommissioning large nuclear power plants for unrestricted release may not be feasible. In its proposed decommissioning rule issued in August 1994, the NRC states:

A site will be considered acceptable for license termination under restricted conditions if . . . [t]he licensee can demonstrate that further reductions in residual radioactivity necessary to comply with the [radiological criteria for unrestricted release] are not technically achievable, would be prohibitively expensive, or would result in net public or environmental harm . . . (Emphasis added.)

Thus, neither the NRC nor UE can assure that the Callaway Nuclear Plant will be dismantled, decontaminated, and the property restored to unrestricted use. It is just as likely that UE (or some other entity) would be required to provide for control and maintenance of the site in perpetuity.

UE: "By law, Callaway and DOE wastes cannot be consolidated at one site."

Response:

Mr. Mueller incorrectly states that "[t]he Low-Level Radioactive Waste Policy Amendments Act [(LLRWPA)] of 1985 and the Midwest Compact make it unlawful to co-mingle Callaway Plant and DOE LLRW at the same site."

The LLRWPA does not prohibit the States or compacts from agreeing to accept DOE LLRW. The LLRWPA and the Midwest Compact merely declare that the States are not responsible for and may not be required to accept for disposal DOE LLRW.

Section 3(a)(2) of the LLRWPA states,

No regional disposal facility may be required to accept for disposal any material —

- (A) that is not low-level radioactive waste . . . , or
- (B) identified under the Formerly Utilized Sites Remedial Action Program.

Nothing in this paragraph shall be deemed to prohibit a State, subject to the provisions of its compact, or a compact region from accepting for disposal any material identified in subparagraph (A) or (B). [Emphasis added.]

Nor do the LLRWPA or the Midwest Compact prohibit cooperation and cost sharing between the States and the DOE as they develop separate or joint disposal facilities.

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UE: "The Callaway Plant Operating License does not allow disposal of LLRW on-site."

Response:

Mr. Mueller presumes to speak for the NRC when he states, "Both Union Electric and The NRC will not permit any activity which could jeopardize [the Callaway Nuclear Plant's] excellent safety and operating record."

The Callaway Plant Operating License has been amended many times since it was initially granted by the NRC. The fact is that the NRC will not summarily reject any proposed disposal facility, but, rather, will objectively evaluate such a facility including an evaluation of environmental monitoring issues and the impact on Callaway Nuclear Plant operations.

Any LLRW disposal facility located near the Callaway Nuclear Plant would be evaluated on, among other things, whether it adversely affects the safety and operations of the Callaway Nuclear Plant. Without even siting and design criteria, neither the NRC, UE, nor the Task Force can predict the outcome of such an evaluation.

UE: "Transportation costs and hazards associated with transportation would be saved with a site at Callaway rather than Utah or some other place."

Response:

Mr. Mueller relies primarily on his misreading of the LLRWPA when he states, "Callaway Plant wastes would need to be sent to another location (Midwest Compact) site whether or not a FUSRAP disposal site were developed at Callaway." Again, neither the LLRWPA nor the Midwest Compact prohibits a regional compact from agreeing to accept DOE LLRW.

Mr. Mueller also states that "[f]acility disposal costs far outweigh the cost of transportation. . . ." Table Appendix B-7 of the *Feasibility Study/Environmental Impact Statement for the St. Louis Site*, April 1994 Draft, lists the following costs for the "Instate" (i.e., in Missouri) and "Commercial" (i.e., Utah) alternatives.

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Summary Cost Table (Millions of Dollars)

	Instate	Commercial
Transportation	65.9	84.8
Disposal	41.7	219.4
Disposal Siting	60.0	0.0
All other costs	353.0	430.2
Total	520.6	734.4

By DOE's own estimates, the cost of an instate site is more than \$200,000,000 cheaper than the Utah alternative. Also, the instate transportation costs may be less than the DOE estimate if rail transport is used rather than trucks (there is a railroad spur on the Callaway site). Even if DOE can negotiate lower disposal costs for the Utah facility, it is doubtful that this lower cost can offset the \$200 million difference between the DOE estimates.

OTHER CONSIDERATIONS

Other considerations support studying a LLRW facility near the Callaway Nuclear Plant site for disposal of the St. Louis Site waste.

1. The cooperative effort of the DOE and the various regional low-level radioactive waste compacts regarding the disposal of mixed radioactive and hazardous waste may serve as a model to begin discussions with the Midwest Compact regarding the benefits, costs, and feasibility of siting a LLRW disposal facility in Missouri whether near the Callaway Plant site or some other site. The regional compacts have sought out the DOE for a solution to the problem of disposal of mixed waste; DOE should expand this process to nonhazardous LLRW.
2. The Midwest Compact may realize a financial benefit if it can build on the DOE's work to site a LLRW facility in Missouri. Such benefits may include cost savings for site

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characterization, facility construction and design, environmental monitoring, etc. DOE and the Midwest Compact can negotiate whether DOE's costs would amount to a subsidy to the Midwest Compact or whether the Midwest Compact will reimburse DOE for its share of the facility costs.

3. Private communications with Midwest Compact staff and advocates of a commercial LLRW facility in Ohio (the proposed Midwest Compact host state) show they recognize the possibility of realizing a substantial benefit to their efforts to site a commercial LLRW facility if a Midwest Compact facility can "piggyback" on a DOE facility.
4. The area surrounding the Callaway Nuclear Plant is one of the most geologically and hydrologically studied sites in Missouri. Extensive studies were performed prior to selecting the site for construction of the Callaway Nuclear Plant. Further study may be necessary to fully characterize the site for siting a LLRW facility; however, sufficient data may exist to exclude the Callaway site from further consideration which itself would be a worthwhile exercise.

CONCLUSION

In his August 12 letter, Mr. Mueller states, "We fully support the Congressional national policy and the compact process as established by the LLRW Policy act to minimize the number of LLRW disposal sites." If so, UE must then support the intention of the Midwest Compact to site a LLRW disposal facility in Missouri when its turn comes.

Contrary to Mr. Mueller's statements, there is currently insufficient information to conclude whether the property surrounding the Callaway Nuclear Plant is suitable or not suitable for a LLRW facility. The siting criteria of a nuclear power plant with a forty-year design life are very different from the siting criteria for a LLRW facility with a 300-yr design life. Also, political and regulatory issues must be considered including the legitimate concerns of local residents.

I feel strongly that the Task Force will only achieve its goal if the members are committed to honestly examining all options. The Task Force will surely fail in its mission if members merely adopt well-worn and comfortable positions and summarily dismiss ideas without fully exploring the costs and benefits.

Please note that the opinions expressed above are my own and are not necessarily those of the St. Louis City Advisory Commission, the Task Force, or any other member.

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Formerly Utilized Sites Remedial Action Program (FUSRAP)

ADMINISTRATIVE RECORD

for the St. Louis Site, Missouri



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