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Office of Administration
Mailstop TWB-05-B01M
U.S. Nuclear Regulatory Commission
Washington D.C. 20555-0001

via email: Callaway.COLEIS@nrc.gov

Re: Docket No. 52-037; NRC-2008-0556
Callaway Plant Unit 2 Combined License Application

Scoping Comments for Callaway 2

On January 14, 2009, the Commission issued its Notice of Intent to Prepare an EIS and Conduct Scoping Process, published at 74 FR 4257.

These comments on the scope of the EIS are submitted on behalf of potential parties, the Missouri Coalition for the Environment and Missourians for Safe Energy.

Radioactive waste storage and transportation

The emphasis should be on on-site storage. There is no repository for high-level radwaste, and it cannot be assumed that Yucca Mountain will ever be available. If it is it will not be able to accommodate waste from a new reactor.

For low-level waste there is also no storage option at present since the Barnwell SC repository is no longer accepting waste from Missouri and no alternative site exists.

The EIS must consider the risks and impacts from on-site storage, both in pools and in dry casks. This is especially important because of the high discharge burn-up of fuel in the EPR, which is designed to burn uranium more efficiently but in the process increases the intensity of the fuel's ionizing radiation. As reported last year by Posiva in its Environmental Assessment for the spent fuel repository for the EPR in Finland, this

could lead to as 7-fold greater release of Iodine-129 from a defective or damaged canister.

Seismic effects

The largest earthquakes in US history occurred along Missouri's New Madrid Fault in 1811–12. They registered between 7.8 and 8.1 on the Richter scale. The EIS should consider the impacts from a recurrence of such events.

Safety

The EIS should consider the risks and effects of “beyond design basis” accidents.

Emergency planning should be addressed including evacuation plans, provision of potassium iodide pills as required by Public Law 107-188, section 127, and backup plans for notification of the public.

The Commission must determine whether the EPR is vulnerable to a jet impact.

Full safety analysis cannot realistically be done before the design certification. The Commission should therefore await the results of the design certification process for the EPR.

Water

The EIS should consider the quantity and impacts of drawing makeup water for the cooling towers, and the thermal impact of water discharged to the Missouri River; AmerenUE states that the blowdown water will be 12F warmer than the river. This need for study extends to the effects on flora and fauna in the ecosystem.

The Applicant's ER considers the impacts of other water users only in the immediate vicinity, in particular of the tiny (60 MW) Chamois coal-fired power plant and Callaway 1. There are far larger power plants and industrial users along the Missouri River, and an 850 MW coal plant, Iatan 2, is being built upstream from Kansas City. The cumulative effects of these other users on the flow and water quality of the Missouri, where flows are already less than three-quarters what they were before European settlement, and when global warming is likely to exacerbate droughts, must be studied.

Nuclear power entails routine releases of radioactivity into the air and water. The direct, indirect and cumulative impacts of these releases need to be studied.

AmerenUE acknowledges that there will be impacts on wetlands and possible dredging, requiring a MDNR water certification and Corps permit under CWA 401 and 404. Wetlands need to be independently identified and the impacts, avoidance and mitigation assessed

There are 31 reactors in the Mississippi River watershed. The cumulative effects of discharges into the Missouri and Mississippi watershed should be considered.

The effect of the plant on impaired waters listed under sec. 303(d) of the Clean Water Act should be given more study than the assurance, in the ER, Operating Impacts, p. 19, that Missouri DNR will conduct further monitoring.

Need for power

AmerenUE uses a 1.4% annual load growth projection (ER, Need for Power, p. 22). This is excessive. The Energy Information Administration, for example, is projecting 1.0% annual increases in electricity consumption for 2009–2030.

<http://www.eia.doe.gov/oiaf/aeo/overview.html>

This reduced need will be further offset by alternatives. In November, 2008 Missouri enacted a Renewable Electricity Standard, which will require UE to get 15% of its retail sales from renewable sources by 2021. UE said in its ER that it planned to add only 3%. Missouri also has large, almost untapped potential for energy efficiency. UE itself is beginning to conduct efficiency programs; at least a preliminary assessment of the effect of these programs needs to be done.

Alternatives

Energy conservation and efficiency are capable of eliminating the need for new baseload power. UE, and Missouri as a whole, have barely begun to realize this potential, which needs to be given detailed consideration in the EIS. Incentives for reduced energy use are increasing in number as a matter of federal and state policy.

Renewable energy also requires detailed consideration. As noted above, Missouri now has a Renewable Energy Standard. The costs of renewables are declining. They cannot be eliminated from consideration because they are not “baseload;” the term is increasingly meaningless. As renewables spread, and with a more sophisticated transmission grid, the problem of intermittency will be overcome.

The EIS should not employ UE’s condition that any alternative generation must be built on the Callaway site. There is no reason for this except as a pretext to disqualify renewable energy as an alternative.

The combination of Demand Side Management (DSM) and renewables should be considered as an alternative. Renewable energy, built on a foundation of conservation and efficiency, is fully capable of averting the need for baseload power.

As a socioeconomic impact, efficiency and renewables offer far more jobs, spread over the entire state, than Callaway 2.

As an irreversible and irretrievable commitment of resources, the EIS should consider how the cost of nuclear will divert investment from DSM and renewables.

Cost-benefit analysis

The EIS should consider more recent projections of nuclear power plant costs and the history of cost overruns in the nuclear industry as well as those encountered by the

EPR in Europe. It should not rely, as the Applicant's ER does, solely on overnight cost, nor should it discount decommissioning costs into insignificance (ER secs. 10.4.2.1, 10.4.2.2).

Global warming

The EIS should consider the cumulative effects of greenhouse gas emissions from the production of power plant construction materials such as cement, steel, copper and aluminum.

The uranium fuel cycle — mining, processing, transport — is also carbon-intensive, and its direct, indirect and cumulative impacts should be considered.

Thank you for your attention to these comments.

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