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Kansas Department of Health and Environment

Statement of Wayne Penrod
Concerning the Proposed Kansas Air Quality Construction Permit
Of Sunflower Electric Power Corporation

August 4, 2010

Good evening Mr. Chairman, my name is Wayne Penrod. I am the Executive Manager, Environment for Sunflower. Sunflower staff and our consultants have been working on permitting this plant since the summer of 2000. I wanted to take a few minutes today to respond to a few comments I heard in Johnson County that deserve a response.

First, and anyone who has visited the existing Holcomb 1 unit will attest to this, the existing unit is “still” one of the cleanest plants in the country. Many local leaders and officials indicate as much yesterday. It seemed to me that several who participated in the Johnson County hearing were not aware of just how clean. There have many improvements in pollution control technology over the last three decades, and many of those improvements have been first demonstrated on power plants operated by cooperatives. Holcomb 1 has been, for about 27 years now, an excellent example of a well designed, very well operated electricity generating unit.

These are some things I believe you should know about the existing unit and the new unit. H1 has repeatedly tested at very low emission levels of filterable particulate matter, both fine and coarse, and much lower than the design level. You at KDHE know this because you know how well the installed fabric filters operate and you have observed some of the tests and

you review each test report as it has been filed. This is best available control technology (BACT) for H1 and it is BACT technology for H2.

H1 has continuously operated, since 1983, what was, at the time of construction, the largest dry flue gas desulfurization (Dry FGD) system in the world. It removes very well the sulfur Dioxide (SO_2) and Sulfur trioxide (SO_3) that are released when the already low sulfur coal is burned. You at KDHE and Region VII of EPA know this because you see the data we report electronically. This is best available control technology (BACT) for H1 and it is BACT technology for H2.

H1 has continuously operated, since 1983, what was, at the time of construction, the best low-NO_X burner technology available. Again, you at KDHE and Region VII of EPA know this because you see the data we report electronically. Of course, newer technology, called selective catalytic reduction, is now available which can further limit NO_X emissions.

I'm frankly glad that finally, after better than 25 years of Sunflower leading the pack, other electricity units are now adding new pollution control technology to limits their emissions of these same pollutants.

There are some points that I'd like to make about mercury. Both KDHE and EPA Region VII know this because you've had opportunities to review the reports and make site visits to Holcomb 1 during the testing. Sunflower and all the other utilities in Kansas, along with many others including the US Department of Energy and the Electric Power Research Institute (EPRI), were leaders in helping to develop control technology for mercury control. We expected this to be a most difficult task and very little was understood about mercury control, especially on PRB coal. We now know how to control those emissions. We also know, thanks to a vigorous testing program, very well what our mercury emissions are and that's what we report to EPA for

their toxic release inventory. Both KDHE and EPA Region VII know this because you've had opportunities to review the reports and make site visits to Holcomb 1 during the testing. We are not, quite simply, the 10th "dirtiest" power plant in the country for mercury emissions, regardless of what the data suggests. Perhaps the commenters should torture someone else's data; perhaps it will confess.

The technology, especially the Dry FGD/FF, serve to capture large amounts of hazardous air pollutants (HAPs). In fact, the current H1 unit is not a major source of HAPs, and we know the proposed H2 unit will not be a major source of HAPs either. We know this because we've been at the forefront of testing to determine to what degree the emissions from facilities like ours are already controlled. Mercury, also a HAP, will be controlled by the injection of powdered activated carbon onto which about 85 to 90% of the elemental mercury, and other HAPs, can adsorb.

There is something else about mercury you need to know: the Bush administration promulgated rules and regulations that imposed the first ever mercury control program. But there were those, including some state attorneys general and the Sierra Club, who thought the program did not go far enough, and they were successful in having the rule vacated. Now there is no rule limiting mercury emissions from existing power plants, and consequently control systems, that would by now be operating, simply are not being installed because no one knows what the requirements will be. The Obama administration expects to propose a mercury rule later this year, with the final rule in late 2011.

But if you wonder about the air emission impact in this area it may be useful to compare rough estimates of the total level of pollutants emitted in your county (1999 data) to those in Finney County.

	Saline		Holcomb 2	Finney	
Pollutant	**Rank**	**Tons**	**Tons**	**Rank**	**Tons**
Sulfur Dioxide	18	446	3,240	10	2,826
Nitrogen Oxides	20	5,995	1,914	9	13,055
PM10	--	8,416	742	14	10,036
PM2.5	--	1,780	722	13	2,126
CO	--	21,545	4,579	14	14,054
VOC	11	3,835	119	16	2,765
Total		**42,017**	**11,316**		**44,862**

Clearly these counties are comparable in the total point-source air pollution emissions. Vehicle emissions in Saline County are likely quite a bit higher because of Interstate 70, and keep in mind that those in Finney County include emissions from Holcomb 1. The effect of those pollutants listed will be evaluated by Sunflower, and verified by EPA and KDHE, for their impact within 50 km of the facility, and at no point can the modeled impact of those emissions be greater than the significance level established by EPA.

By now you have heard that the modeling work has been previously completed, but a problem within the EPA-approved AERMOD software, which is used to perform the modeling to determine that impact of these emissions must be rerun. We do not anticipate any further problems in performing the evaluation. Clearly this project will satisfy all of the requirements of the Clean Air Act, and following completion of the required air dispersion modeling, I would like to request that KDHE swiftly approve the draft permit as presented.