

**KERR-McGEE CORPORATION**

KERR-McGEE BUILDING • OKLAHOMA CITY, OKLAHOMA 73102

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February 11, 1972

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Mr. C. R. Buchanan  
Division of Material Licensing  
U.S. Atomic Energy Commission  
Washington, D. C. 20545

Dear Mr. Buchanan:

Please refer to our telephone conversations and earlier correspondence on the subject of fluoride content of vegetation near the Sequoyah Facility.

As reported to you on the telephone February 7, we have measured the fluoride content of the off-gas stack from the HF scrubber and find that we are discharging 1.27 pounds per day which gives a concentration at the stack of .75 ppm.

Design calculations were made demonstrating that a .89 pound per day release would result in a concentration of .06 ppb in a sector of an annular area with an ID of 1000 meters from the stack and an OD of 2000 meters from the stack. With these calculations in mind, the measurements shown on Table VIII seem reasonable and nonharmful.

As I described in view of the initial vegetation data, additional samples were taken of vegetation in the plant area and the results reported below with the approximate location of the sampling points described in reference to the "Site Plan" included in the Environmental Report:

<u>Sample No.</u>	<u>ppm</u>	<u>Location</u>
2-1	4.7	At fault well numbered 2307
2-2	4.0	Halfway between fault well and sample reported as E-3 (3000 feet east of stack) originally
2-3	4.4	At same location as sample E-3, 3000 feet east of stack
2-4	6.2	Northwest of sample 2-3, approximately 1000 feet in center of area enclosed by 580 foot contour line

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Mr. C. R. Buchanan  
February 11, 1972  
Page Two

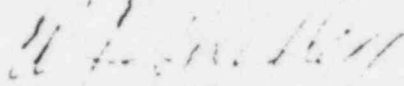
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<u>Sample No.</u>	<u>ppm</u>	<u>Location</u>
2-5	4.6	1000 feet north of sample 2-3
2-6	4.3	Approximately 5000 feet east of stack at border of school property
2-7	4.3	East of stack at property boundary corner adjacent to Route 64
2-8	4.0	On northeast corner of property north of Route 64
2-9	1.1	1/4 mile north of Route 64 directly north of stack
2-10	5.3	1/2 mile north of Route 64 directly north of stack
2-11	3.1	On west bank of Arkansas River at Interstate 40 bridge

All samples taken were of forage grasses.

I believe this report completes the data you requested. Please let me know if you need additional information.

Very truly yours,



W. J. Shelley  
Director, Regulation &  
Control  
Nuclear Operations Division

WJS:srj