UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76012

bcc to DAC:ADM:
CENTRAL FILES
PDR:HQ
LPDR
~~TIC~~
NSIC

July 15, 1980

States

Ms. Pamela Barickman
Route 1, Box 280
Clarksville, Arkansas 72830

Dear Ms. Barickman:

This letter provides a response to your letter of June 25, 1980, with regard to the May 10, 1980 event at Arkansas Nuclear One, Unit 1.

Enclosed you will find a copy of the Licensee Event Report Number 80-015/01-0 dated May 19, 1980. The licensee is still evaluating this event and will submit a supplemental report. We have also enclosed a copy of our inspection report number 50-313/80-07, 50-368/80-07. Section 10 of this report contains information pretaining to the May 10, 1980 event.

You also asked some specific questions regarding this event. We have provided answers to these questions below.

1. Is the water (57,700 gallons spilled onto the reactor building floor) still in a holding tank on the reactor site? Will it be recycled to cool the reactor or released into Lake Dardenelle?

Ans.-All of the spilled water was reprocessed and reused. 40,000 gallons of this water was returned to the borated water storage tank (BWST) and the remainder was returned to the reactor coolant system. None of the water was released to Lake Dandenelle.

After the 57,700 gallons of water was reprocessed approximately 3000 gallons of water was used to clean and decontaminate the reactor building. This water was processed and released to the lake.

2. What is the radioactive content of the water?

Ans.-The spilled water was analyzed prior to processing and had the following activity levels:

Isotope	Activity (microcuries/cc)
Iodine-131	0.9753
Iodine-133	0.7166
Xenon-133	0.155
Total Activity	2.068

After the water was processed it was analyzed and found to have the following activity levels:

Isotope	Activity (microcuries/cc)
Iodine-131	$1.054X10^{-3}$
Iodine-133	$1.866X10^{-4}$
Xenon-133	$8.308X10^{-2}$
Total Activity	$9.07X10^{-2}$

3. How many curies of Tritium does it contain?

Ans.-The spilled water was not analyzed for Tritium content.

4. How many curies of noble gases were released from the containment building?

Ans.-A total of 2423.91 curies of noble gas were released. The majority (2322 curies) of the noble gas was Xenon-133. Other isotope included in the noble gases released were:

Krypton-85
Xenon-131M
Xenon-133M
Xenon-135

I hope that the above information satisfies your concerns. If we can be of any further assistance, please do not hesitate to contact this office.

Sincerely,

Karl V. Seyfrit
Director

Enclosures:
LER No. 50-313/80-15
IE Report Nos. 50-313/80-07
50-368/80-07