ARKANSAS POWER & LIGHT COMPANY
FIRST COMMERCIAL BUILDING/P.O. BOX 551/LITTLE ROCK, ARKANSAS 72203/(501) 371-7901

November 27, 1985

T. GENE CAMPBELL
Vice President
Nuclear Operations

ØCAN118510

Director of Nuclear Reactor Regulation
ATTN: Mr. J. F. Stolz, Chief
Operating Reactors Branch #4
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

Director of Nuclear Reactor Regulation
ATTN: Mr. Edward J. Butcher, Acting Chief
Operating Reactors Branch #3
Division of Licensing
U. S. Nuclear Regulatory Commission
Washington, DC 20555

SUBJECT: Arkansas Nuclear One - Units 1 & 2
Docket Nos. 50-313 and 50-368
License Nos. DPR-51 and NPF-6
ANO-2 Radiological Effluent Technical
Specification Change Request

Gentlemen:

The purpose of this letter is to submit the enclosed ANO-2 Radiological Effluent Technical Specification (RETS) Change Request to NRC for approval. The effect of this change will be to add Technical Specifications to address radiation monitoring of the HVAC exhaust for our new Low-Level Radwaste Storage Building (LLRWSB). For conservatism and simplicity of radiological accounting as specified in the OFFSITE DOSE CALCULATION MANUAL (ODCM), we plan to attribute radiological releases made via the HVAC exhaust vents to ANO-2. Consequently, no RETS Change Request is included herein for ANO-1.

The LLRWSB, which was described to NRC in our letter dated February 25, 1985 (ØCANØ285Ø3), is currently under construction on the ANO site. As discussed in that letter the ANO LLRWSB will be constructed and operated in compliance with NRC Generic Letter 81-38, which contains applicable NRC guidelines for such facilities. Our February 25, 1985 letter also conveyed our conclusion that no Technical Specification changes would be required as a result of our construction and operation of this facility. We have since further discussed this matter with members of your staff, and although not

A009 w/check $150
1/1
8-8215

explicitly required, your staff feels that it would be prudent to include changes in our Technical Specifications governing radiation monitoring of the HVAC exhausts serving areas used for waste processing (i.e., compaction operation). Therefore, in accordance with your staff's request, AP&L proposes to submit the enclosed ANO-2 RETS Change Request and thereby treat the LLRWSB exhaust as another possible release pathway of low-level radioactivity to the environment whenever compaction operations are underway within the LLRWSB which may generate airborne radioactive particulate activity.

Attached is a functional description and proposed location of the SPING4A radiation monitor which we propose to use in this application. We wish to stress that the SPING4A monitor (which we are proposing to install on the main building HVAC exhaust) is in addition to an existing particulate monitor located on the exhaust from the compactor room to the main building area. The purpose of the compactor room exhaust monitor, which was specified in the original design of the building, is to monitor the exhaust from the compactor room prior to filtration in order to provide local indication of airborne activity. The compactor room exhaust vent was originally selected to be monitored because it was considered then, as well as now, to be the most probable source of airborne particulate activity originating within the building. Our intention then was to monitor the most probable pathway so that we would obtain the earliest possible local indication of airborn activity. However, we will also initiate manual sampling as an additional level of control, if we find that we need to perform compaction prior to achieving operability of the SPING4A monitor. In this case, we believe such action on our part would ensure interim compliance with this Technical Specification as proposed herein. Also, in accordance with the ANO-2 Technical Specification 6.9.3.2 any necessary changes to the OFFSITE DOSE CALCULATION MANUAL which are made as a result of this technical specification change request, will be included in the next Semiannual Radiological Effluent Release Report for the period in which the change to the ODCM was made effective.

Also enclosed is our negative Significant Hazards Consideration Determination and a check for $150.00 as our application fee for NRC's review of this change.

Finally, pursuant to 10CFR50.91 (b), a copy of this amendment package is being sent to Mr. E. Frank Wilson, Director of the Division of Environmental Health, Arkansas State Health Department. The circumstances of this proposed amendment are not exigent or emergency.

Very truly yours,

T. Gene Campbell

TGC:DET:ds

Attachments

cc: Mr. E. Frank Wilson
Arkansas State Health Department

STATE OF ARKANSAS)
) SS
COUNTY OF PULASKI)

I, T. Gene Campbell, being duly sworn, subscribe to and say that I am Vice President, Nuclear Operations, for Arkansas Power & Light Company; that I have full authority to execute this oath; that I have read the document numbered ØCAN118510 and know the contents thereof; and that to the best of my knowledge, information and belief the statements in it are true.

T. Gene Campbell

SUBSCRIBED AND SWORN TO before me, a Notary Public in and for the County and State above named, this 27 day of November, 1985.

Susan K. Gentry
Notary Public

My Commission Expires:
May 7, 1993

DESCRIPTION OF AMENDMENT REQUEST

At the request of the NRC Staff, this ANO-2 Technical Specification change will add to our existing ANO-2 radiation monitoring requirements the capability for monitoring the HVAC exhaust particulate matter on our new Low-Level Radwaste Storage Building. Specifically, radioactive effluent monitoring instrumentation and surveillance requirements for the Radwaste Storage Building HVAC Exhaust System will be added to Tables 3.3-12 and 4.3-12. Additionally, the Radioactive Gaseous Waste Sampling and Analysis Program, Table 4.11-2, will be revised accordingly to reflect this additional monitoring requirement.

BASIS FOR PROPOSED NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

A review of this change has shown that it does not increase the probability or consequences of any previously analyzed accident. This is due to the fact that this change proposes to increase, rather than decrease, the existing level of radiological controls at ANO.

Additionally, because this is an enhancement to our existing radiological monitoring capabilities, we have determined that this change will in no way create the potential of a new or different kind of accident from any previously analyzed.

Finally, because this change will strengthen, rather that weaken, the overall radiological monitoring program at ANO, we have determined that no margin of safety would be reduced as related to the health and safety of the public.

Based on the above considerations, we have concluded that the proposed amendment request does not involve a Significant Hazards Consideration.

The Commission has provided guidance concerning the application of these standards by providing certain examples (40FR14870). The proposed amendment herein matches example (ii), "A change that constitutes an additional limitation, restriction or control not presently included in the technical specifications: for example, a more stringent surveillance requirement."

FUNCTIONAL DESCRIPTION OF MONITOR AND AIR HANDLING SYSTEM

Current planning calls for the Radwaste Building HVAC radiation monitor to be an Eberline SPING4A. This type of monitor has particulate and iodine filters and low, medium and high range noble gas detectors. The particulate filter is monitored by a beta detector and an alpha detector. The alpha detector is utilized for background subtraction of Radon daughters. The effective range is approximately 1E-11 to 1E-6 µCi/cc. The iodine filter is monitored by a scintillation detector. The effective range is 1E-11 to 1E-6 µCi/cc. The low range noble gas channel is monitored by a scintillation detector with an effective range of approximately 1E-7 to 1E-2 µCi/cc ^{133}Xe equivalent. The medium range noble gas channel is monitored by a G-M tube with an effective range of approximately 1E-3 to 1E+2 µCi/cc ^{133}Xe equivalent. The high range noble gas channel is monitored by a G-M tube with an effective range of approximately 1 to 1E+5 µCi/cc ^{133}Xe equivalent. Provisions have been incorporated for collection of a grab sample.

The monitor is microcomputer-controlled and will be connected to the ANO GERMS System for total site release rate information. In addition, analog outputs have been provided which will be connected to indicators in the Radwaste Building.

The effluent radiation monitor draws a sample from the main HVAC exhaust duct through an isokinetic flow nozzle at a point prior to release to the environs. Manual grab sampling provisions will be available in the event the monitor becomes inoperable.

The Radwaste Building is provided with separate air handlers for supply and exhaust. The fans are sized to maintain the waste storage areas and compaction room at a slight negative pressure. Both supply and exhaust air handlers are backed up by duplicate units. A control system allows a changeover of units to be done manually or automatically in the event of a malfunction.

The supply units contain filters and blow through direct expansion chiller coils to dehumidify the supply air when the ambient air temperature is greater than 45°F. Air is reheated to within 5°F of ambient dry bulb temperature following dehumidification. When ambient temperatures are below 45°F the air is heated enough to reduce the relative humidity to 50%. The exhaust fans draw air through a "pant-leg" junction which allow retrofitting of a single HEPA filter cabinet. The exhaust fans are sized to remove about 30% more air than is delivered by the supply fans to maintain negative pressure in the building.

Waste collection area air is exhausted through a prefilter and HEPA filter. Airborne activity and smoke are continuously monitored in the exhaust fan pant-leg junction. The control system is configured to alarm on the presence of effluent activity or smoke at the HEPA filter.