



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

FEB 4 1993

DOCKET NO: 40-8027

LICENSEE: Sequoyah Fuels Corporation (SFC)
Gore, Oklahoma

SUBJECT: SAFETY EVALUATION REPORT, AMENDMENT APPLICATION DATED
JANUARY 14, 1993, RE PROCESS COMMITMENT NO. 10

Background

SFC's license requires that SFC conduct monthly tests and annual calibrations on the safety interlock system in the fluorine production system. SFC has announced plans to cease UF_6 production; therefore, the fluorine production system is not in operation. By request dated January 14, 1993, SFC has requested relief from testing requirements in the fluorine production system.

Discussion

Chapter 6 of SFC's license contains special process commitments; Item 10 pertains to the safety interlock system in the fluorine production system. Item 10 states in part that "The entire safety interlock system (Q circuit) in the fluorine production system shall be maintained fully operational. The process instrumentation, alarms, and interlocks shall be tested monthly and calibrated each calendar year." Because of the UF_6 shutdown, the fluorine production system is not in operation. SFC has requested relief from the monthly tests and annual calibration until such time as fluorine production is restarted. SFC would conduct the required test and calibration required by Item 10 prior to any startup of the fluorine production system.

The major concern in fluorine production is the possible mixing of hydrogen, and/or fluorine, and/or air on a large scale. This could occur by the cells grossly pressuring up, forcing electrolyte into the piping systems, disrupting the liquid electrolyte seals in the cells, and allowing the gases to mix, producing a fire or an explosion. The purpose of the Q circuit is to assure that the pressurization cannot occur. The Q circuit measures pressure in the fluorine surge tank, pressure in the hydrogen surge tank, and pressure differential between the two surge tanks. Currently, these tanks are empty and the fluorine production system is down. No part of the Q circuit is needed for cell cleanout or for any other ongoing plant activity. Therefore, the Q circuit does not need to be maintained operational.

The staff agrees with SFC that the Q circuit testing and calibration are not necessary while the fluorine production system is down. Therefore, the following condition is recommended to grant the requested relief from the testing:

Condition 29 Notwithstanding the commitment contained in Chapter 6, Item 10 (page I. 6-2), SFC shall not be required to conduct the monthly tests and annual calibration of the safety interlock system (Q circuit) in the fluorine production system during the timeframe for which the fluorine production system is shutdown. These tests and calibrations shall be conducted prior to resumption of fluorine production.

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Conclusion/Recommendation

The proposed action is acceptable to the staff. The staff concludes that the testing relief will not adversely affect the protection provided for the health and safety of the employees, the general public, and the environment. Therefore, the staff recommends approval, subject to the above condition.

The Region IV Principal Inspector has no objection to this proposed action.

Original Signed By:

Merri Horn
Uranium Fuel Section
Fuel Cycle Safety Branch
Division of Industrial and
Medical Nuclear Safety, NMSS

Original Signed By:

Approved by: Michael Tokar, Section Leader

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