

December 20, 2005

Mr. John H. Ellis
President
Sequoyah Fuels Corporation
P.O. Box 610
Gore, OK 74435

SUBJECT: AMENDMENT 32 - SEQUOYAH FUELS CORPORATION - MATERIALS
LICENSE NO. SUB-1010 - APPROVAL OF REQUEST TO REVISE GENERAL
ARRANGEMENT DRAWING (TAC LU0112)

Dear Mr. Ellis:

This letter is in response to Sequoyah Fuels Corporation's (SFC's) letter, dated November 1, 2005, requesting U.S. Nuclear Regulatory Commission (NRC) approval to revise the General Arrangement Drawing in the license renewal application for NRC Source Materials License No. SUB-1010. The license application is referenced in Condition 9.1 of SFC's NRC license. The requested change would revise Figure 3-1, to remove the area around Pond 4 from the Prohibited Area and to remove Pond 4, the fence around Pond 4, Pond 6, and the Decorative Pond from the drawing.

Based on its review of the request and its independent analysis, the staff concludes that the requested revision to the license application is acceptable. The basis for the staff's approval is documented in a Technical Evaluation Report, provided as Enclosure 1. An environmental review was not performed since this action is categorically excluded under 10 CFR Part 51.22(c)(11). Amendment 32 of SFC's license, reflecting the changes to the license application, is provided herein as Enclosure 2.

If you have any questions concerning this letter please contact the NRC project manager, Dr. Myron Fliegel, at (301) 415-6629 or via e-mail to mhf1@nrc.gov.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice for Domestic Licensing Proceedings and Issuance of Orders," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

\RA\

Gary S. Janosko, Chief
Fuel Cycle Facilities Branch
Division of Fuel Cycle Safety
and Safeguards
Office of Nuclear Material Safety
and Safeguards

Docket No.: 40-8027
License No.: SUB-1010
Amendment No. 32

Enclosures:

1. Technical Evaluation Report
2. Source Materials License SMC-1010

cc: William Andrews, USGS
Michael Broderick, OK DEQ
Kelly Burch, Esq., OK AG
Will Focht, OSU
Alvin Gutterman, Esq., Morgan Lewis & Bockius
Pat Gwin, Cherokee Nation
Jeannine Hale, Esq., Cherokee Nation
Craig Harlin, SFC
Jim Harris, USACE
Troy Poteete, Cherokee Nation
Charles Scott, USFWS
Saba Tahmassebi, OK DEQ
Rita Ware, EPA
Kim Winton, USGS
Merritt Youngdeer, BIA

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NAME	M. Fliegel		B. Garrett		B. VonTill		G. Janosko	
DATE	12/14/05		12 /15/05		12/15/05		12 /20/05	

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**TECHNICAL EVALUATION REPORT
OF THE SEQUOYAH FUELS CORPORATION'S
REQUEST FOR AMENDMENT OF ITS LICENSE
TO REVISE THE GENERAL ARRANGEMENT DRAWING
IN THE LICENSE APPLICATION**

DATE: December 12, 2005

DOCKET NO.: 40-8027

LICENSE NO.: SUB-1010

LICENSEE: Sequoyah Fuels Corporation
Highway 10 & I-40
Gore, OK 74435

FACILITY: Sequoyah Facility, Gore, OK

PROJECT MANGER: Myron Fliegel

TECHNICAL REVIEWER: Myron Fliegel

SUMMARY AND CONCLUSIONS:

The licensee proposed to remove Pond 4 from the Prohibited Area because it has been cleaned to acceptable radiological limits. The licensee also proposed to remove from the general arrangement drawing several clean ponds that have been filled in. The staff has reviewed the radiological report provided by the licensee and concludes that Pond 4 has been appropriately cleaned and can be removed from the Prohibited Area. The staff also concludes that the filled in ponds can be removed from the general arrangement drawing.

DESCRIPTION OF AMENDMENT REQUEST:

By letter dated November 1, 2005, the licensee, Sequoyah Fuels Corporation (SFC), requested U.S. Nuclear Regulatory Commission (NRC) approval to revise its license renewal application. The license application is referenced in Condition 9.1 of SFC's NRC license. The requested change would revise Figure 3-1, the general arrangement drawing, to remove the area around Pond 4 from the Prohibited Area. The requested change would also remove Pond 4, the fence around Pond 4, Pond 6, and the Decorative Pond from the drawing.

EVALUATION:

The licensee requested removal of the area around Pond 4 from the Prohibited Area based on its cleanup of contamination in and around the pond. The licensee provided, as an enclosure to its November 1, 2005 letter, its "Final Radiological Status Report, Pond 4," dated July 2005. The report describes the radiological survey design, including sampling and quality control

Enclosure 1

procedures, and the results of its radiological survey of the pond. The pond had been used to store raffinate sludge which was later relocated to the Clarifier Basins. The licensee completed its remediation of the residual contamination from the pond and conducted a final status survey in 2005.

The staff has reviewed the licensee's report and concludes that the radiological survey procedures are acceptable. The licensee's survey consisted of ambient gamma exposure rate measurements and soil sampling.

The licensee proposed residual radioactivity limits for three radionuclides; natural uranium (U-nat), thorium-230 (Th-230), and radium-226 (Ra-226). The licensee proposed the following limits for those radionuclides, in units of picoCuries per gram (pCi/g):

U-nat	35 pCi/g
Th-230	14 pCi/g (upper 15 centimeters of soil) 43 pCi/g (greater than 15 centimeters below surface)
Ra-226	5 pCi/g (upper 15 centimeters of soil) 15 pCi/g (greater than 15 centimeters below surface)

The proposed limit for Ra-226 is taken from 10 CFR Part 40, Appendix A, Criterion 6(6), and is, therefore, acceptable. For licensees subject to Appendix A, the radium benchmark dose applies for cleanup of residual radionuclides other than radium, i.e., U-nat and Th-230 in this case. In addition, if more than one radionuclide is present, the sum of the ratios concept must be applied. In its reclamation plan for the entire site, the licensee proposed a limit of 100 pCi/g for U-nat and the limits identified above (i.e., 14/43 pCi/g) for Th-230 for soil cleanup. In its Draft Safety Evaluation Report for the proposed reclamation plan, the staff considered the proposed soil cleanup limits and concluded that they meet the requirements of Criterion 6 of 10 CFR Part 40, Appendix A, and are acceptable. Therefore, the staff concludes that the proposed cleanup limits for Pond 4 are acceptable.

The license provided the results of its radiological survey in its report. The licensee concluded that all samples met the radiological criteria. Additionally, during an inspection conducted in late spring of 2005, the staff conducted a confirmatory survey of Pond 4. Results of that survey are described in NRC Inspection Report 040-08027/05-001, dated July 20, 2005. The inspectors concluded that its sample results were below the cleanup levels for all three radionuclides. Therefore, the staff concludes that the licensee has appropriately cleaned up the radiological contamination in Pond 4 and that the pond can be removed from the Prohibited Area.

The licensee requested removal of Pond 4, Pond 6, and the Decorative Pond from the general arrangement drawing because these ponds have been filled in and no longer exist. As discussed above, the staff concludes that Pond 4 has been acceptably cleaned up. Although Pond 6 was considered not to have been radiologically contaminated (it was a fertilizer storage pond), the licensee conducted a final status survey prior to filling in the pond. Discussion of the licensee's final status survey of Pond 6 is provided in NRC Inspection Report 040-08027/05-001. Based on its survey, the licensee concluded that the pond could be released for

unrestricted use. Finally, the Decorative Pond never contained radiological materials. Therefore, the staff concludes that the ponds can be removed from the general arrangement drawing.

RECOMMENDED REVISIONS TO THE LICENSE:

The following revision to the Sequoyah Fuels license is recommended:

- 9.1 Authorized use: For use in accordance with the statements, representations, and conditions contained in Chapters 1 through 7 of the license renewal application dated August 23, 1985; supplements dated February 16, 1993, July 7, 1993, [Amendment #20--C-Plan, September 2, 1994; November 21, 1994; January 9, 1995], [Amendment #21--Reorganization, May 6, 1994; November 23, 1994; March 3, 1995], [Amendment #22--Well-Plugging, October 3, 1994; February 9, 1996], [Amendment #23--Part 20, July 19, 1994; February 2, 1996; April 2, 1996; September 27, 1996], [Amendment #24--Chapter 6, November 18, 1996], [Amendment #25--Paragraph 9, December 3, 1997], [Amendment #26-- Chapter 5, March 30, 1998], [Amendment #27 -- off-site air sampling, October 14, 1998], and [Amendment #28-- UF₆ cylinder area restrictions, November 19, 1999], **and [Amendment 32 -- Changes to the general arrangement drawing, November 1, 2005]** which are hereby incorporated by reference, except where superseded by license conditions below.

Whenever the word "will" or "shall" is used in the above referenced documents, it shall denote a requirement. Notwithstanding the above, the following conditions shall override any conflicting statements contained in the licensee's application and supplements.

[Applicable Amendment: 29, **32**]

ENVIRONMENTAL REVIEW:

An environmental review was not performed as this licensing action is categorically excluded under 10 CFR 51.22(c)(11) because the staff has determined that the following conditions have been met:

1. There is no significant change in the types or significant increase in the amounts of any effluents that may be released offsite,
2. There is no significant increase in individual or cumulative occupational radiation exposure,
3. There is no significant construction impact, and
4. There is no significant increase in the potential for or occurrences from radiological accidents.

Accordingly, pursuant to 10 CFR 51.22(c)(11), neither an environmental assessment nor an environmental impact statement is warranted for this action. Additionally, an environmental report from the licensee is not required by 10 CFR 51.60(b)(2).

REFERENCES:

Code of Federal Regulations (CFR), Title 10, Chapter I - Nuclear Regulatory Commission, Parts 40 and 51, revised as of January 1, 2005.

Harlin, Craig L., Sequoyah Fuels Corporation, SUB-1010, Docket – 40-8027, Changes to the General Arrangement Drawing. Letter to Myron Fliegel, Fuel Cycle Facilities Branch, NRC, November 1, 2005. ML053210280.

Sequoyah Fuels Corporation, Final Radiological Status Report, Pond 4, July 2005. ML053210280.

Spitzberg, D. Blair, NRC Inspection Report 040-08027/05-01. Letter to John H. Ellis, President, Sequoyah Fuels corporation, July 20, 2005. ML052010654.

U.S. Nuclear Regulatory Commission, Draft Safety Evaluation Report For the proposed reclamation plan for the Sequoyah Fuels Corporation Site in Gore, Oklahoma; Materials License No. SUB-1010. September 2005. ML052630068.